



## Curriculum



Revised and Updated 2012 ...

... a practical tool to help manage curriculum planning, implementation, and recording in the Montessori classroom from birth to age 12

. . . . . . . . . .

The Montessori Foundation



The Montessori Foundation • 19600 E SR 64 • Bradenton, FL 34212 800-655-5843 • 941-729-9565 • www.montessori.org Copyright 2012 (All rights reserved.)



# Curriculum Scope & Sequence Getting a Quick Start

## Getting a Quick Start ....

The Montessori Foundation's Scope and Sequence was revised to facilitate use with software designed to track the progress of students in our lab school - New Gate Montessori in Sarasota, Florida. New Gate uses MontessoriCompass<sup>TM</sup>. The format of the Scope and Sequence is such that it can be easily adapted for incorporation into a number of other software systems.

We assume that any school using our Scope and Sequence will modify and add to the original content to make our curriculum better fit that school. Our Curriculum Scope and Sequence guide continues to be revised, and we would welcome your feedback and suggestions.

The new expanded and updated Montessori Curriculum Scope and Sequence from infant through 12 years old (grade 6 in the US) includes all development levels from birth to age 12 (US grade 6). The curriculum areas currently included are: Practical Life Skills; Sensorial; Language Arts; Mathematics and Geometry; Geography; History; Science; Cosmic Studies; and Visual Arts.

Using this Scope and Sequence document, you will be able to find all the lessons and their elements within the different discipline areas of the document and plan your integrated thematic study very easily. It will give you a vast number of ideas that you may not have encountered in your training and will make the life of the educator a little easier.

If you are a public charter school, you might be interested in obtaining the curriculum aligned with the Common Core Curriculum (USA). This will become available when all the Common Core standards are published, which is expected by the end of the school year of 2012-2013.

### The Meaning of the Dots

We have used dots to indicate at which ages lessons are generally presented; please note, that this is very child-dependent, but can be used as a guideline for the educator. As a Montessori educational experience is child-centered, introduction of lessons will



The Montessori Foundation • 19600 E SR 64 • Bradenton, FL 34212 941-729-9565 • www.montessori.org



be dependent on the developmental readiness of the child. The dots are also used to represent that a lesson may be used with many ages of students, but that the followup or the presentation would be representative of the developmental level of the child.

The colors of the dots do not have any symbolic meaning; they are merely used to assist in making the age suggestions more discernible. The pattern of green, blue, and red, repeating is taken from the color code used in Montessori math to represent the units, tens, hundreds, and units of one thousand columns. The colors simply make it somewhat easier to recognize at what age/grade level we anticipate that a lesson will be taught.

#### The Code

A dot indicates that by this age/grade level the skill will normally be introduced and the student is working toward mastery. Unlike conventional programs, Montessori does not introduce a concept or skill once and then move on. Students work on most skills or concepts over a span of years. They are introduced as soon as a student seems to be ready, but Montessori guides consciously introduce students to work at the age/grade level shown above by either the symbol "I" for an initial introduction to the dots, which signify that a student should be working toward mastery. The symbol "R" represents a year in which a skill is normally reviewed and retested. It is important to grasp that there is no year-by-year curriculum as is found in most schools. Instead, students progress at their own pace.

#### What is included?

The Montessori Foundation's Curriculum Scope and Sequence is comprised of a comprehensive set of files, which clearly set out the lessons for all subject areas and age groups, organized according to:

- Curriculum Area (subject or discipline)
- Strand
- Material or Lesson
- Curriculum Element.

Each entry has a recommended age range during which the element is normally introduced, practiced, and mastered.

The material is provided in a number of formats to accommodate a variety of possible uses within the school.

. . . . . . . . . . . . . . . .

Getting a Quick Start . 3

- A stand-alone FileMaker<sup>™</sup> database containing the entire curriculum that offers a convenient way to search for a specific record or set of records, and various layouts designed for different audiences of parents and teachers. (You do not need to own FileMaker<sup>™</sup> to run a free standing FileMaker<sup>™</sup> file.) This will allow you to easily modify the curriculum to suit your school's specific requirements.
- A set of individual Excel<sup>™</sup> files for each curriculum area. Again, the files will allow for your own modifications.
- Individual Adobe Acrobat<sup>™</sup> files showing each area of the curriculum. This format offers a comprehensive overview of the entire curriculum and is intended for schools to give to teachers, outside accrediting organizations, government agencies, and parents. We provide Acrobat<sup>™</sup> files that are designed to show the Scope and Sequence for teachers and administrators, along with another set designed to show the curriculum to parents.

All three formats include the same content formatted for different uses.

The Scope and Sequence can be used in conjunction with online record-keeping software such as MontessoriCompass<sup>™</sup>.

###





#### The Value of The Montessori Foundation's Scope and Sequence<sup>©</sup>

The Montessori Foundation Curriculum Scope and Sequence is a practical tool to help manage curriculum planning, implementation, and recording in the Montessori class-room from birth to age 12.

The first version was developed during the years from 1968 through 1996, when The Montessori Foundation first made it available to Montessori schools.

From our interaction with hundreds of Montessori schools, as consultants and teacher trainers for over more than thirty years, we have discovered that many Montessori schools do not have (or follow) a clear curriculum policy, nor do they have a formal curriculum Scope and Sequence guide.

Administrators often indicate that their teachers' albums serve as their guides. In today's world, it is increasingly important to have a formal written guide to serve as a common frame of reference for each classroom, especially from one age level to the next. While our Montessori lesson albums are invaluable tools, they are not what is truly meant by curriculum guides, nor do they provide a coherent Scope and Sequence that is clearly understood by everyone, particularly those without formal Montessori training.

The Montessori Foundation's Scope and Sequence<sup>®</sup> is the result of many years of painstaking analysis of the Montessori tradition to evaluate the age ranges at which we believe Montessori children should commonly reach major milestones and develop a language that is performance oriented and understood by traditional educators.

The Montessori Foundation's Curriculum Scope and Sequence<sup>®</sup> guide is continually being revised, and we would welcome your feedback. In time, your faculty will propose improvements or modifications to make the curriculum fit your school.





### The Montessori Foundation's Revised 2012 Scope and Sequence®

The revised version of the Montessori Foundation's Curriculum Scope and Sequence<sup>®</sup> is the result of many years of painstaking analysis of the Montessori tradition to evaluate the age ranges at which we believe Montessori children should commonly reach major milestones and develop a language that is performance oriented and understood by traditional educators.

The Montessori Foundation's Curriculum Scope and Sequence<sup>®</sup> was revised to facilitate use with student progress-tracking software, such as Montessori Records Xpress<sup>™</sup>, MontessoriCompass<sup>™</sup>, MontAlign<sup>™</sup>, and other products that continue to be developed. Our lab school, The New Gate School in Sarasota, Florida uses MontessoriCompass<sup>™</sup>. The format of the Scope and Sequence is such that it can be easily adapted for incorporation into a number of other software systems.

Our expanded and updated Montessori Curriculum Scope and Sequence<sup>©</sup> includes all development levels from birth to age 12 (US grade 6).

The curriculum areas currently included are:

- Practical Life Skills
- Language Arts
- Geography
- Science
- and Visual Art
- Sensorial
- Mathematics and Geometry
- History
- Cosmic Studies

We are currently working on preparing additional units of Early Childhood through Age 12 Montessori Curriculum in several areas\*, which include:

- Economic Education;
- Civics and Government;
- Invention, Industry, and Technology;
- Movement and Physical Education;
- Music;
- The Study of a Second Language; and
- Peace Education

\*Schools that purchase a licence to use the Montessori Foundation's revised Curriculum Scope and Sequence© will receive files with the Scope and Sequence in the additional areas as they become available.

Over the next year, we plan to continue to develop Curriculum Scope and Sequence for Montessori Secondary Programs - Ages 12 to 18. They will be released as each level is completed.





#### Alignment to State Curricula and the US National Common Core Curriculum

For US Montessori schools, we already have the Math and Language Common Core standards aligned to Montessori lessons and activities; however, this does not make use of our updated Scope and Sequence.

We are currently in the process of aligning our revised Scope and Sequence to the Common Core Curriculum for Math and Language, and once the rest of the Common Core standards have been written, we will align to those as well.

We can also prepare an alignment of state standards to the updated Montessori Curriculum Scope and Sequence<sup>®</sup>, along with the alignment to the Common Core Standards as needed.

#### Licensing and Copyright

The PDF files can be printed for use in parent curriculum summaries or uploaded to your school's website.

The Montessori Foundation's Curriculum Scope and Sequence<sup>®</sup> is copyrighted and licensed to schools to duplicate and modify for the use of their administrators, teachers, and parents. **Copies of the curriculum in any form may not be given or sold to anyone outside the purchasing school's community.** 

#### The Montessori Curriculum

The word 'curriculum' is used to mean a number of different things. In popular usage, it denotes no more than a set of topics that are studied at a school or university, along with their content. When seen in this way, a large range of issues are omitted which are critical to achieving clarity and consistency within a school. While this introduction cannot explore the topic in great detail, it is important to note that the Scope and Sequence, along with the lesson plans, observation, recording systems, assessment principles, and reporting methods that support it, are all components of a total, educational, curriculum.

Although Maria Montessori had a complex vision of curriculum, she never compiled a single, comprehensive, practical curriculum statement that would be recognised as such in today's educational context. There was a good reason for this — she intended that the teacher be responsive to the developmental and individual needs of each child, rather than slavishly follow a syllabus of work. The Montessori teacher is expected to understand both the developmental needs and abilities of the children in her care, as well as a broad range of content, along with the methodology necessary to present the appropriate ma-





terials or lessons to the children. The exact content was intended to be organic, flexible and adaptable to local conditions. While this "expansive" approach is the ideal of Montessori education, it fails to satisfy parents and officials who require a more clearly defined outline of what the school expects children to learn in a defined time.

Montessori programs are designed to prepare children, not only for university but also for life. Our perspective on children's learning and the role of educators is quite different from conventional education.

Three key ideas are central to this approach:

- 1. It is not the adult who shapes the child; it is the child who, through his experiences, creates an adult human being,
- 2. Teaching is not something that one can do to another; we can only support the natural process of learning.
- 3. There is a clear connection between one's sense of self, of being fully alive and open to new ideas and experiences, and the ability to learn.

Recognizing this, we engage in a process that leads not to complacent students, who are good at cramming for tests, but rather to the development of self-actualized 'renaissance' men and women. In Montessori, children learn how to learn and see school as a center of an enjoyable lifelong experience. They acquire the values and intellectual skills that enable them to go on to college and then successful careers. They see this as a natural extension of their Montessori experience.

As Montessori teachers, principals, teacher trainers, and consultants, we know this. In an age of accountability, however, Montessori schools need effective ways of communicating their educational plan and demonstrating individual student progress to parents (and possibly local or state officials).





#### The Montessori Foundation's Approach to Curriculum

For some time, we have been struggling to find an appropriate balance between our objective of cultivating the child's spontaneous interest in learning and the expectations of parents and society.

Traditionally, schools have been perceived as the transmitters of culture from one generation to the next through a formal curriculum. While we acknowledge that this is an important part of our mission, Montessori schools are equally committed to the development of responsible members of the human family and to the protection of the child's fragile spark of curiosity and creativity. Most children know far more about the world before they start school then they will show a few years later, when they have learned to be passive learners who no longer trust their senses, intellect, and imagination. Therefore, our greatest task is to help our students to maintain their ability to think, intuit, and discover; to develop a sense of independence, sequence, and order; to learn how to learn.

At the same time, as independent schools, or publicly funded schools of choice, parents come to us seeking quality programs and services. Their highest priorities are academic excellence and character development.

Most parents expect their children to be well prepared for college or university. They are also looking for a school experience that will offer something special, something that will make the school experience intellectually exciting and develop a wide range of talents and interests in their children.

Schools find it difficult to document the delivery of these services in a way that allows parents to evaluate what they are getting. Parents expect to be kept abreast of the programs that address these goals as well as their children's progress.

#### Three Streams of Curriculum

We see the Montessori Curriculum as three streams that come together in a great confluence of learning:

1. The first stream involves the mastery of fundamental skills and basic core knowledge.

This is a school's basic expectations for what will be introduced, worked on, reviewed, and targeted for mastery by 85-90 percent of all students at each age or grade level.

#### • • • • • • • • • • • • • •



As we know, Montessori Curriculum evolved out of the European tradition. It offers a rigorous course of study. Elementary and Secondary Montessori students explore the realm of mathematics, science and technology, the world of myth, great literature, history, world geography, civics, economics, anthropology, and the basic organization of human societies. Their studies cover the basics found in traditional curriculum, such as the memorization of math facts, spelling lessons, and the study of vocabulary, grammar, sentence analysis, creative and expository writing, and library research skills.

Sometimes, because Montessori places so much emphasis on cultivating children's sense of curiosity and wonder, parents may get the impression that students can simply do whatever they wish, avoiding subjects that they dislike. This is certainly not the case in a well-run Montessori class.

2. The second stream of Montessori Curriculum involves inspirational lessons and experiences that we organize and present.

These are the lessons and experiences that we introduce to our students, but which we do not consider essential for them to master. We hope that we will inspire them and awaken interest, appreciation, and a sense of wonder that will lead them to continue to explore these topics in the years to come. This is what Montessori had in mind when she wrote:

> "The secret of good teaching is to regard the child's intelligence as a fertile field in which seeds may be sown, to grow under the heat of flaming imagination. Our aim is not only to make the child understand, and still less to force him to memorize, but so to touch his imagination as to enthuse him to his innermost core. We do not want complacent pupils, but eager ones. We seek to sow life in the child rather than theories, to help him in his growth, mental and emotional as well as physical, and for that we must offer grand and lofty ideas to the human mind."

We bear witness to the way our students respond to our key lessons and all the many experiences that we arrange, but in this area we do not have any distinct expectation that they must master and retain what we shared.

At the Elementary level, Dr. Montessori's Great Lessons are five key areas of interconnected studies traditionally presented to all Elementary Montessori students in the form of inspiring stories and related experiences and research projects. They include the story of how the world came to be, the development of life on the Earth, the story





of humankind, the development of language and writing, and the development of mathematics. They are intended to give children a 'cosmic' perspective of the Earth and humanity's place within the cosmos. The lessons, studies, and projects surrounding each of the Great Lessons normally span many months, and the questions that the children pose and their efforts to find the answers to their own questions may continue for many years. And this is only the beginning!

3. The third stream of the Montessori Curriculum is the child's individually chosen research.

Elementary and Secondary Montessori students are encouraged to explore topics that capture their imagination. Most former Montessori students look back on this aspect of the Elementary program with particular fondness.

Yet another way of looking at Montessori is to consider some additional principles of our work:

- We want to engage children's interest.
- We want children to discover the power of their own intellect.
- We want children to see that they are not simply doing assignments to make their parents and teachers happy, but that their lives, ideas, and interests have merit in their own right, not only in the judgment of others.

In the first stream of our program, we teach what must be taught, whether required by law or contemporary cultural expectations, doing so in as engaging a way as possible, providing experiences and apparatus that illustrate ideas concretely, in order to make information easy to understand and see in context.

In the second stream of our program, we consciously seek to design curricula and experiences meant to awaken interest and inspire a sense of wonder, rather than simply to give children yet more facts on which they will be tested (and, yes, everything in this second stream is part of our culture, and people who grasp it are even that much more culturally literate). The key in the metaphor of the second stream of learning is that children are not held accountable—at least not at this age level, when we present it as part of the second stream—for mastering this knowledge. We are trying to light a spark!

In the third stream of our work, we are simply remembering that learning does not stem only from teachers, textbooks, or even Montessori materials. It is nice to design new lessons and card sets, timelines, or apparatus, but in the third stream, something is occurring that comes from within the child herself, not from us! The process is delicate; the spark easily extinguished.





The point of the metaphor within the third stream is to underscore for Montessori educators the absolute importance of making lots of room for this to occur when it does occur naturally.

#### Structure of The Montessori Foundation's Revised Scope and Sequence Curriculum<sup>©</sup>

This updated version of The Montessori Foundation's Scope and Sequence<sup>®</sup> has been designed so that the educator can look at how the sequence of lessons is generally ordered within any given level from Early Childhood through the Upper Elementary years. It is, thus, possible to see the vast number of lessons and the elements that span these levels of the Montessori programs.

Conventional schools plan learning for the entire classroom group. Content is organized into grade levels. While all good teachers individualize as much as they can by creating sub-groups of children within their classroom, there is a clearly defined set of skills and knowledge that children are expected to achieve before advancing from one grade level to the next. In this way of thinking about schooling, the curriculum can be thought of as a stairway up which children climb from kindergarten through high school graduation in a clearly defined time.

The Montessori Curriculum is organized as an inclined spiral plane of integrated studies, rather than a traditional model in which the curriculum is compartmentalized into separate subjects, with given topics considered only once at a given grade level. In Montessori, concepts are introduced simply and concretely in the early years and elaborated upon over the years at increasing degrees of abstraction and complexity.



Introduction . 9



Even though the Montessori Curriculum is highly integrated in the classroom, we have chosen to organize the Scope and Sequence into the familiar subject areas. This is to make it more easily understood by parents and educators who work in conventional schools.



The Montessori Foundation • 19600 E SR 64 • Bradenton, FL 34212 941-729-9565 • www.montessori.org



The Infant/Toddler Scope and Sequence is a separate document, indicating that this is a very different plane of development.

The **Scope** of a curriculum is a set of clearly stated learning objectives and activities that the school expects a child to have experienced and achieved by a certain age. The curriculum scope might also be aligned to local, state, and/or national expectations for student performance.

The **Sequence** of a curriculum is the order in which the activities are presented that would support the child in achieving the desired objectives. In conventional schooling, a Scope and Sequence is presented as a clear delineation of what will be taught, together with very specific performance objectives referenced to grade levels.

The delivery of these services is difficult to document from the school's end and, from the parent's end, even more difficult to evaluate. Parents expect to be kept abreast of the programs that address these goals and their children's progress in each program. As a result, we need to carefully maintain this delicate balance.

#### Using the Scope and Sequence

At first glance the Scope and Sequence may be overwhelming. The depth and breadth of its coverage do, however, represent something of great value. Parents often express concern that Montessori is not academic enough, or that their children might not get what they need to prepare them adequately for their later years in conventional classrooms. The scope of the Montessori Curriculum when broken out into the various disciplines and underlying learning objectives is, however, very impressive. Hopefully, among other benefits, having copies of the curriculum available for parents to review will help to allay many of their concerns.

The delivery of these services is difficult to document from our end, and from the parent's end, even more difficult to evaluate. Parents expect to be kept abreast of the programs that address these goals, and, their children's progress in each program. As a result, we need to carefully maintain this delicate balance.

#### How to use this document:

The Montessori course of study is an integrated thematic approach that ties the separate disciplines of the curriculum together into studies of the physical universe, the world of nature, and the human experience. Literature, the arts, history, social issues, civics, economics, science and the study of technology all complement one another in

#### . . . . . . . . . . . . . . . .



the Montessori curriculum. This integrated approach is one of Montessori's great strengths. As an example, when Elementary Montessori students study Africa, they would look at the physical geography, climate, ecology, natural resources, and the ways in which people have adapted to their environment: food, shelter, transportation, clothing, family life, and traditional cultures. They might read African folk tales, study about the great African civilizations, study endangered species, create African masks and traditional instruments, make African block-print tee shirts in art, learn some Swahili, study dance in music, and prepare some typical meals from various African cultures. Guest speakers, performers, and friends of the school help to make a field of study come alive through their memories, talents, and personal experience.

#### **Recording Student Progress**

Many Montessori teachers use a fairly simple check list of Montessori lessons and materials that normally fits on two pages. Commonly, they make notes of student progress by drawing the three legs of a triangle. They draw the first leg when they introduce a lesson; the second leg when they see that the child is working with the material and practicing as he or she works toward comprehension or mastery; and the third leg to complete the triangle when they feel the child has comprehended or mastered the lesson or material.

We find that this is inadequate to fully represent the levels of engagement with materials and content, and the subsequent learning experienced by the child.

We developed the following assessment scheme in collaboration with many Montessori experts, and we thank them for their insights and contributions. You will notice that the emphasis is placed on the student's activities and experiences and their participation within their learning journey. We have included it here, as we thought it might be of use to you.

#### 1 Initial Presentation/Lesson Given

- 2 Initial Exploration
  - Student investigates the newly introduced concept or skill.
  - Teacher observes evidence of early-skill development of concept formation through various means, such as: completion of the work; written expression; verbal expression; artistic; or other expression.
  - Student begins to show focus, concentration, and effort in completing the work or applying the skill.

#### • • • • • • • • • • • • • •



#### 3 Exploring Skill

- Student explores the skill to develop proficiency.
- Teacher observes beginning synthesis of the skill through various means, such as completion of the work, written expression, verbal expression, artistic, or other expression.
- Student shows a high level of determination, cooperation and effort in applying this skill.

#### 4 Working Towards Proficiency

- Student applies the skill to develop greater proficiency.
- Teacher observes ongoing development of skill synthesis through various means, such as: completion of the work; written expression; verbal expression; artistic; or other expression.
- Student shows determination, cooperation, and effort in applying this skill.

#### 5 High Level of Proficiency

- Student demonstrates a highly developed level of proficiency in applying skill.
- Teacher observes the student's retention and ability to apply the skill through various means: written expression; verbal expression; artistic expression or other expression.
- Student shows a very high level of determination, cooperation and effort in applying this skill.

#### 6 Very High Level of Proficiency

- Student expands the level of proficiency through repetition and application of skill.
- Teacher observes the child's inner need to return to the skill for refreshment or refinement.
- Student's determination and effort remain high.

###



## Curriculum

Scope & Sequence The Infant Curriculum



**Parent-Infant Programs:** These are primarily programs designed to educate the parents of very young children in child development and the Montessori strategies for helping parents to respond to the needs they observe in their infants. These programs give parents an opportunity to observe their children and, through discussion, learn how they can best respond to their babies' needs. Normally, parent-infant programs will accept children under eighteen months of age.

Parents come with their children to a short class that normally lasts about ninety minutes, held once or twice a week. Often, there will be a parent-teacher discussion held at another time during the week. Topics always include parent questions and concerns and a weekly topic, such as: sleep, nutrition, home environment, and infant and toddler development. The staffing is commonly one certified Montessori Infant-Toddler teacher with the parents remaining in the room. In this model, parents learn how to observe their child and learn a great deal about child development to be used at home. **Montessori Infant-Care Programs:** For those who need all-day care, there are a small, but growing, number of Montessori Infant-Care programs, which normally accept infants aged six weeks to fifteen months of age. These programs are still very rare, but they are slowly beginning to spread. It is especially important in these programs that the lead teacher working with each group of nine infants be certified in Montessori Infant-Toddler education to ensure the quality of the program.

With infants, the schedule of the day is dependent on their needs. Each baby has a different schedule for feeding and sleeping. There should be a routine of stability and consistency; babies look for predictability.



The Montessori Foundation • 19600 E SR 64 • Bradenton, FL 34212 941-729-9565 • www.montessori.org

## How to Read the Code of Dots and Letters Used in the Scope and Sequence:

Infant Curriculum . 2

Montessori does not organize curriculum by the grade level at which topics are to be taught. We assume that children learn at different paces and learn best in different ways. In most cases, students in Montessori programs will work on any given skill or concept over several years. We introduce students to new lessons as soon as they seem to be ready. Likewise, we have a plan of what Montessori students ought to learn and the age/grade levels at which which we expect mastery from most students.

Instead of arranging our curriculum by grade level, we organize it by the subsets of concepts and skills (Strands) and the sequence in which they will be taught. In our Curriculum Scope and Sequence, to the right of the list of curriculum elements, we use a series of vertical columns to represent a given span of ages or grades. We use large dots to indicate the age or grade levels at which we anticipate a given lesson will be presented. Since we do not follow a grade-by-grade curriculum, the age or grade when a child will actually be ready to begin work depends on his or her developmental readiness. Our Dot Code is simply a guideline for Montessori educators.

When viewed in color on a computer, the dots follow a pattern of green, blue, and red, which is repeated at each Montessori three-year program cycle. The color coding makes it somewhat easier to see at which age/grade levels we anticipate children will work on concepts or skills. Normally, students return to work many times over two years or longer before they truly understand what they have studied and retain it over time.

	Montes	so <del>r</del> i Foundat	ion Cu <del>rr</del> iculum Scop	e a	nd S	eq	uet	nce	Ą	ges	3 t	o 12	2
	C W	Commonly, by the e vill be able to demo	nd of the span of age or grade lonstrate the following skills, know	evels wled	indica ge, and	ited   l/or	belo und	w, sti ersta	aden ndin	ts g:			
Area	Strand	Lesson/Material	Curriculum Element	Age	3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Golden Bead Materials	Demonstrates an understanding of the concept of change between hierarchies, using additive quantities with Golden Bead Materials.		•	•	R						25
Mathematics	Decimal System: Introduction to Place Value: 2	Constructing Quantities with the Golden Beads and Number Cards	Constructs, identifies, and names the quantity (naming correctly from left to right), up to 9,999, represented by an assembly of Golden Beads.		•	•	R						26

As you can see by the example above, we expect that the two Math skills shown (items number 25 and 26) will normally be introduced at age four, and we anticipate that children will continue to work on them over the following year. The "R" shown in the 1st-grade column indicates that we suggest that the teachers ought to review and re-test to see if the child still understands the concept or skill. In some case the symbol "I" is used to indicate that a child should be given a first introduction to a concept or skill at a given age/grade level. Students often work on some concepts and skills over the course of several years.

Area	Strand	Lesson/Material	Curriculum Element	Birth - 3 mo.	3-6 mo.	6-9 mo.	9-12 mo.	12-18 mo.	ID
Infants	Motor Development	Equilibrium	Lifts head.	•					1
Infants	Motor Development	Equilibrium	Raises head while lying on stomach.	•					2
Infants	Motor Development	Equilibrium	Supports upper body with arms while lying on stomach.	•					3
Infants	Motor Development	Equilibrium	Stretches out and kicks legs.	•					4
Infants	Motor Development	Equilibrium	Pushes down with legs when held above a hard surface.	•					5
Infants	Motor Development	Equilibrium	Masters control of the head.	•					6
Infants	Motor Development	Equilibrium	Rolls over, turning from front to back.		•				7
Infants	Motor Development	Equilibrium	Rolls both ways.			•			8
Infants	Motor Development	Equilibrium	Scoots along floor using arms and legs to propel body forwards.		•				9
Infants	Motor Development	Equilibrium	Sits supported by pillows.		•	•			10
Infants	Motor Development	Equilibrium	Sits, supporting self with hands.			•			11
Infants	Motor Development	Equilibrium	Sits without support.			٠			12
Infants	Motor Development	Equilibrium	Gets to sitting position without assistance.			•			13

Area	Strand	Lesson/Material	Curriculum Element	Birth - 3-6 3 mo. mo.	6-9 mo.	9-12 mo.	12-18 mo.	ID
Infants	Motor Development	Equilibrium	Gets from sitting to crawling position without assistance.		•			14
Infants	Cognitive Development	Exploration	Purposefully explores objects in a number of ways through shaking, banging, throwing, dropping, etc.		•	•	•	15
Infants	Motor Development	Equilibrium	Crawls forward on belly by pulling with arms and pushing with legs.		•	•		16
Infants	Motor Development	Equilibrium	Crawls on hands and knees.		•			17
Infants	Motor Development	Equilibrium	Stands with support.		•			18
Infants	Motor Development	Equilibrium	Pulls body into upright position.		•			19
Infants	Motor Development	Equilibrium	Walks with assistance.			•		20
Infants	Motor Development	Equilibrium	Walks on tip-toe, holding onto bar or furniture.			•		21
Infants	Motor Development	Equilibrium	Stands upright without support.			•		22
Infants	Motor Development	Hand	Opens and closes hands.	•				23
Infants	Motor Development	Hand	Brings hand to mouth; explores hand with mouth.	•				24
Infants	Motor Development	Hand	Instinctive prehension evident in grasping adult finger or object offered.	•				25
Infants	Motor Development	Hand	Begins to observe own hands.	•				26

Area	Strand	Lesson/Material	Curriculum Element	Birth - 3 mo.	3-6 mo.	6-9 mo.	9-12 mo.	12-18 mo.	ID
Infants	Motor Development	Equilibrium	Swipes at objects dangling on mobile or frame.	•					27
Infants	Moto <del>r</del> Development	Hand	Purposeful grasping and shaking of objects.	•	•				28
Infants	Motor Development	Hand	Uses whole hand; raking grasp.		•	•			29
Infants	Motor Development	Hand	Intentionally works with hands to manipulate objects.		•	•			30
Infants	Motor Development	Equilibrium	Reaches with one hand to grasp an object.			•			31
Infants	Motor Development	Hand	Transfers objects from hand to hand.			•			32
Infants	Motor Development	Hand	Purposefully grasps and releases objects.			•			33
Infants	Motor Development	Hand	Controls fingers.			•			34
Infants	Motor Development	Hand	Prehension with pincer grip - small objects.				•		35
Infants	Motor Development	Hand	Holds large objects with arms.				•		36
Infants	Social and Emotional	Attachment	Enjoys bodily contact, such as cuddling.	•					37
Infants	Social and Emotional	Attachment	Enjoys being in the company of others.		•	•			38
Infants	Social and Emotional	Attachment	Differentiates between known people and strangers.			•			39

Area	Strand	Lesson/Material	Cu <del>rr</del> iculum Element	Birth - 3 mo.	3-6 mo.	6-9 mo.	9-12 mo.	12-18 mo.	ID
Infants	Social and Emotional	Attachment	Displays attachment to primary care- giver or parent.			•			40
Infants	Social and Emotional	Attachment	Displays shyness and anxiety around strangers.				•		41
Infants	Social and Emotional	Attachment	Cries when parents leave.				•		42
Infants	Social and Emotional	Attachment	Shows a preference for certain people and toys.				•		43
Infants	Social and Emotional	Attachment	Demonstrates affection.				•		44
Infants	Social and Emotional	Attachment	Demonstrates empathy.				•		45
Infants	Social and Emotional	Attachment	Displays separation anxiety.				•		46
Infants	Social and Emotional	Self-Awareness & Emotions	Expresses needs and emotions with body and face.	•					47
Infants	Social and Emotional	Self-Awareness & Emotions	Indicates enjoyment of social play through laughing and body language.		•	•			48
Infants	Social and Emotional	Self-Awareness & Emotions	Displays an interest in images of self in a mirror.	a	•	•			49
Infants	Social and Emotional	Self-Awareness & Emotions	Often expresses joy.		•	•			50
Infants	Social and Emotional	Self-Awareness & Emotions	Expresses a range of emotions, including fear, anger, and shyness.	g		•			51
Infants	Social and Emotional	Self-Awareness & Emotions	Recognizes own name.				•		52

Area	Strand I	Lesson/Material	Curriculum Element	Birth - 3 mo.	3-6 mo.	6-9 mo.	9-12 mo.	12-18 mo.	ID
Infants	Social and Emotional	Self-Awareness & Emotions	Tries to influence the action of others by protesting.	,			•		53
Infants	Social and Emotional	Self-Awareness & Emotions	Actively explores environment.				•		54
Infants	Social and Emotional	Social Interactions	Fixes attention on faces of others.	•	•				55
Infants	Social and Emotional	Social Interactions	Responds with enjoyment to person-to- person contact.	•					56
Infants	Social and Emotional	Social Interactions	Enjoys play activities and indicates displeasure by crying when game stops.	•					57
Infants	Social and Emotional	Social Interactions	Imitates movements and facial expressions of others.	•					58
Infants	Social and Emotional	Social Interactions	Develops "social smile" - smiles at a face.	•					59
Infants	Social and Emotional	Social Interactions	Imitates sounds, actions, and facial expressions.				•		60
Infants	Social and Emotional	Social Interactions	Tests responses of others.				•		61
Infants	Social and Emotional	Social Interactions	Imitates gestures.				•		62
Infants	Social and Emotional	Social Interactions	Fights for a toy, which another child may be holding.				•		63
Infants	Social and Emotional	Social Interactions	Pays attention to and responds differently to different tones of voice.				•		64
Infants	Social and Emotional	Social Interactions	Attempts to play with other children.				•		65

Area	Strand	Lesson/Material	Curriculum Element	Birth - 3 mo.	3-6 mo.	6-9 mo.	9-12 mo.	12-18 mo.	ID
Infants	Social and Emotional	Social Interactions	Deliberately seeks to maintain interaction with others.				•		66
Infants	Social and Emotional	Auditory	Follows familiar voices with eyes or head.	•					67
Infants	Sensory Development	Auditory	Reacts to different sounds.	•	•				68
Infants	Sensory Development	Auditory	Responds to an adult's singing.			•			69
Infants	Sensory Development	Auditory	Makes sounds with objects and reacts to the sounds produced.			•	•		70
Infants	Sensory Development	Gustatory	Eats food with varying textures.			•	•		71
Infants	Sensory Development	Gustatory	Begins to show preferences in the tastes of food.			•	•		72
Infants	Sensory Development	Olfactory	Displays preference for sweet smells.	•					73
Infants	Sensory Development	Tactile	Displays preference for soft rather than rough textures.	٠					74
Infants	Sensory Development	Tactile	Explores textures.		•	•			75
Infants	Sensory Development	Visual	Displays interest in black and white mobiles.	•					76
Infants	Sensory Development	Visual	Follows moving objects with eyes.	•					77
Infants	Sensory Development	Visual	Follows moving things with eyes.	•					78

Area	Strand	Lesson/Material	Curriculum Element	Birth - 3 mo.	3-6 mo.	6-9 mo.	9-12 mo.	12-18 mo.	ID
Infants	Sensory Development	Visual	Recognizes familiar objects and people.	•					79
Infants	Sensory Development	Sensory Exploration	Purposefully explores objects in a number of ways using all senses.				•		80
Infants	Integrated Eye- Hand and Cognitive Development	Building Skills and Concepts Using Special Materials	Explores hand-to-hand transfer; purposefully moving objects from one hand to another.		•	•			81
Infants	Integrated Eye- Hand and Cognitive Development	Building Skills and Concepts Using Special Materials	Puts objects into containers and takes them out again.			•	•		82
Infants	Integrated Eye- Hand and Cognitive Development	Building Skills and Concepts Using Special Materials	Works with Object Permanence Box with tray to refine hand-and-finger control, eye-hand coordination, and to construct concept of object permanence				•		83
Infants	Integrated Eye- Hand and Cognitive Development	Building Skills and Concepts Using Special Materials	Works with Object Permanence Box with drawer to refine hand-and finger- control, eye-hand coordination, and to construct concept of object permanence				•		84
Infants	Integrated Eye- Hand and Cognitive Development	Building Skills and Concepts Using Special Materials	Works with various Imbucare <sup>®</sup> Boxes to refine hand-and-finger control, eye-hand coordination, and to construct the concept of object permanence. (Imbucare <sup>®</sup> Boxes, Copyright Nienhuis, 2012)	)			•		85
Infants	Integrated Eye- Hand and Cognitive Development	Building Skills and Concepts Using Special Materials	Works with Imbucare <sup>®</sup> Boxes with slot and flip lid to refine wrist movement, eye-hand coordination and to construct the concept of object permanence. (Imbucare <sup>®</sup> Boxes, Copyright Nienhuis, 2012)				•		86
Infants	Integrated Eye- Hand and Cognitive Development	Building Skills and Concepts Using Special Materials	Explores geometric shapes through inserting objects into cut-out shapes (Imbucare <sup>®</sup> Boxes with shape-sorter lid) to refine hand-and-finger control, eye- hand coordinatio, and to construct the concept of object permanence. (Imbucare <sup>®</sup> Boxes Copyright Nienhuis, 2012)				•		87
Infants	Integrated Eye- Hand and Cognitive Development	Building Skills and Concepts Using Special Materials	Works with various Imbucare <sup>®</sup> Boxes to develop hand-and-finger control, eye- hand coordination, and to construct the concept of object permanence. (Imbucare <sup>®</sup> Boxes Copyright Nienhuis, 2012)				•		88

The following developmental milestones and educational goals will normally be met over the course of a Montessori Infant program for children from birth to 18 months

Area	Strand	Lesson/Material	Curriculum Element	Birth - 3 mo.	3-6 mo.	6-9 mo.	9-12 mo.	12-18 mo.	ID
Infants	Integrated Eye- Hand and Cognitive Development	Building Skills and Concepts Using Special Materials	Hangs knit balls on dowels to develop eye-hand coordination and fine-muscle control and to begin to match colors.				•		89
Infants	Integrated Eye- Hand and Cognitive Development	Building Skills and Concepts Using Special Materials	Places large pegs into holes to develop eye-hand coordination and fine-muscle control and begin to sort colors.				•		90
Infants	Integrated Eye- Hand and Cognitive Development	Building Skills and Concepts Using Special Materials	Works with simple puzzles to further develop eye-hand coordination and develop figure-ground concept - single- shape puzzles.				•		91
Infants	Integrated Eye- Hand and Cognitive Development	Building Skills and Concepts Using Special Materials	Places disks on dowels to develop eye- hand coordination and various finger grips (Toddler Infilare exercises).				•		92
Infants	Integrated Eye- Hand and Cognitive Development	Building Skills and Concepts Using Special Materials	Places disks and cubes on dowels to develop eye-hand coordination and various finger grips (Toddler Infilare exercises).				•		93
Infants	Cognitive Development	Object Permanence	Finds a partially hidden object.		•	•			94
Infants	Cognitive Development	Object Permanence	Purposefully attempts to reach objects that are out of reach.		•	•			95
Infants	Cognitive Development	Object Permanence	Finds hidden objects.				•		96
Infants	Cognitive Development	Concept Formation	Associates names of objects with images				•		97
Infants	Cognitive Development	Concept Formation	Begins to use objects for their intended purpose.				•		98
Infants	Language	Hearing and Understanding	Responds to loud sounds in environment.	•					99
Infants	Language	Hearing and Understanding	Calms or smiles in response to human voice.	•					100
Infants	Language	Hearing and Understanding	Recognizes voice of parent or primary care-giver.	•					101

Copyright 2012 The Montessori Foundation

Area	Strand L	esson/Material	Curriculum Element	Birth - 3 mo.	3-6 mo.	6-9 mo.	9-12 mo.	12-18 mo.	ID
Infants	Language	Hearing and Understanding	Moves eyes towards direction of a sound.		•				102
Infants	Language	Hearing and Understanding	Responds to changes in tone of voice.		•				103
Infants	Language	Hearing and Understanding	Notices objects that make a sound.		•				104
Infants	Language	Hearing and Understanding	Responds (pays attention) to music.		•				105
Infants	Language	Hearing and Understanding	Responds with enjoyment to simple word and movement games and finger- plays.			•	•		106
Infants	Language	Hearing and Understanding	Turns head towards direction of a sound.			•	•		107
Infants	Language	Hearing and Understanding	Shows interest when spoken to.			•	•		108
Infants	Language	Hearing and Understanding	Recognizes common household words.			•	•		109
Infants	Language	Hearing and Understanding	Complies with simple requests.			•	•		110
Infants	Language	Speaking	Communicates pleasure through cooing sounds.	•					111
Infants	Language	Speaking	Indicates different needs through different cries.	•					112
Infants	Language	Speaking	Smiles when seeing a familiar person.	•					113
Infants	Language	Speaking	Babbling begins to resemble more mature speech and contains some consonants ( <i>p</i> , <i>k</i> , <i>m</i> ).		•				114

Area	Strand	Lesson/Material	Cu <del>rr</del> iculum Element	Birth - 3-6 3 mo. mo.	6-9 mo.	9-12 12-18 mo. mo.	ID
Infants	Language	Speaking	Chuckles and laughs to communicate joy.	• •			115
Infants	Language	Speaking	Vocalizes other emotions, such as excitement and displeasure.	•			116
Infants	Language	Speaking	Makes a range of gurgling sounds when playing with someone or when alone.	•			117
Infants	Language	Speaking	Babbling includes a range of sounds and gaps which resemble phrases.	l	•	•	118
Infants	Language	Speaking	Uses sounds to attract and hold attention of others - communication.		•	•	119
Infants	Language	Speaking	Uses body language to communicate needs.		•		120
Infants	Language	Speaking	Imitates a large variety of speech sounds		•	•	121
Infants	Language	Speaking	Has some recognizable words.			•	122
Infant- Toddler	Motor Development	Equilibrium	Walks holding onto bar or furniture.			•	1
Infant- Toddler	Motor Development	Equilibrium	Walks independently.			•	2
Infant- Toddler	Motor Development	Hands	Coordinates use of both hands working together.			•	3
Infant- Toddler	Motor Development	Hand	Uses hands for purposeful work.			•	4
Infant- Toddler	Social and Emotional	Social Interactions	Engages in solitary or parallel play.			•	5

Area	Strand	Lesson/Material	Curriculum Element	Birth - 3 mo.	3-6 mo.	6-9 mo.	9-12 mo.	12-18 mo.	ID
Infant- Toddler	Integrated Eye- Hand and Cognitive Development	Building skills and concepts using special materials	Works with simple puzzles to further develop eye-hand coordination - three- shape puzzles.					•	6
Infant- Toddler	Integrated Eye- Hand and Cognitive Development	Building skills and concepts using special materials	Stacks different colored disks on dowels sorting by color to further develop hand control and color- matching skills.					•	7
Infant- Toddler	Integrated Eye- Hand and Cognitive Development	Building skills and concepts using special materials	Stacks different sized disks on dowels sorting by color to further develop hand control and color- matching skills.					•	8
Infant- Toddler	Integrated Eye- Hand and Cognitive Development	Building skills and concepts using special materials	Places disks on horizontal dowels to develop supinated wrist movement and further develop eye-hand coordination.					•	9
Infant- Toddler	Integrated Eye- Hand and Cognitive Development	Building skills and concepts using special materials	Places different sized balls and ellipsoids on small pegs to explore sizes and perception of part becoming whole.					٠	10
Infant- Toddler	Integrated Eye- Hand and Cognitive Development	Building skills and concepts using special materials	Works with box with bins to develop various wrist movements and object permanence.					•	11
Infant- Toddler	Integrated Eye- Hand and Cognitive Development	Building skills and concepts using special materials	Works with box with sliding lid to develop wrist movements and object permanence.					٠	12
Infant- Toddler	Cognitive Development	Exploration	Explores objects in a number of ways using all senses (e.g., Treasure Basket; Heuristic Play Collections.					•	13
Infant- Toddler	Cognitive Development	Concept formation	Begins to sort mixed collections of objects into categories.					٠	14
Infant- Toddler	Motor Development	Equilibrium	Walks carrying large and/or heavy objects; climbs stairs carrying objects in search of maximum effort.					•	15
Infant- Toddler	Motor Development	Equilibrium	Runs.					•	16
Infant- Toddler	Motor Development	Equilibrium	Kicks a ball.					•	17
Infant- Toddler	Social and Emotional	Self-Awareness & Emotions	Displays growing awareness of self as separate from others.					•	18

Area	Strand	Lesson/Material	Curriculum Element	Birth - 3 mo.	3-6 mo.	6-9 mo.	9-12 mo.	12-18 mo.	ID
Infant- Toddler	Social and Emotional	Self-Awareness & Emotions	Recognizes self in mirror.					•	19
Infant- Toddler	Social and Emotional	Self-Awareness & Emotions	Refers to self using own name.					•	20
Infant- Toddler	Social and Emotional	Social Interactions	Imitates behavior of others, including actions in songs and play activities.					•	21
Infant- Toddler	Social and Emotional	Social Interactions	Enjoys company of other children.					•	22
Infant- Toddler	Cognitive Development	Sorting and matching	Matches objects to pictures.					•	23
Infant- Toddler	Cognitive Development	Sorting and matching	Pairs identical pictures.					•	24
Infant- Toddler	Cognitive Development	Sorting and matching	Pairs related pictures.					•	25
Infant- Toddler	Cognitive Development	Sorting and matching	Sorts objects by shape.					•	26
Infant- Toddler	Cognitive Development	Sorting and matching	Sorts objects by color.					•	27
Infant- Toddler	Cognitive Development	Sorting and matching	Sorts objects by category (e.g., buttons, animals, beads, etc.).					•	28
Infant- Toddler	Practical Life	Collaboration with adult in activities of daily living	Collaborates with adult in dishwashing.					•	29
Infant- Toddler	Practical Life	Collaboration with adult in activities of daily living	Collaborates with adult in flower arranging.					•	30
Infant- Toddler	Practical Life	Collaboration with adult in activities of daily living	Collaborates with adult in folding activities.					•	31

Area	Strand	Lesson/Material	Curriculum Element	Birth - 3 mo.	3-6 mo.	6-9 mo.	9-12 mo.	12-18 mo.	ID
Infant- Toddle <del>r</del>	Practical Life	Collaboration with adult in activities of daily living	Collaborates with adult in food preparation.					•	32
Infant- Toddle <del>r</del>	Practical Life	Collaboration with adult in activities of daily living	Collaborates with adult in cleaning activities.					•	33
Infant- Toddle <del>r</del>	Practical Life	Collaboration with adult in activities of daily living	Collaborates with adult in setting table for snack or lunch.					•	34
Infant- Toddler	Practical Life	Collaboration with adult in activities of daily living	Collaborates with adult in clearing table after snack or lunch.					•	35
Infant- Toddler	Practical Life	Collaboration with adult in activities of daily living	Collaborates with adult in sorting and folding laundry.					•	36
Infant- Toddler	Practical Life	Collaboration with adult in activities of daily living	Collaborates with adult in pouring water and juice.					•	37
Infant- Toddler	Practical Life	Care of self - Eating	Feeds self with fingers.					•	38
Infant- Toddler	Practical Life	Care of self - Eating	Collaborates with adult in feeding self at weaning table and chair.					•	39
Infant- Toddler	Practical Life	Care of self - Eating	Uses a spoon.					•	40
Infant- Toddler	Practical Life	Care of self - Eating	Drinks from a teaspoon offered by adult.					•	41
Infant- Toddler	Practical Life	Care of self - Eating	Drinks from a cup.					٠	42
Infant- Toddler	Language	Hearing and understanding	Can identify (by pointing) various body parts.					•	43
Infant- Toddler	Language	Hearing and understanding	Can comply with simple requests containing action and object (Fetch the toy, hold my hand).					•	44

Area	Strand	Lesson/Material	Curriculum Element	Birth - 3 mo.	3-6 mo.	6-9 mo.	9-12 mo.	12-18 mo.	ID
Infant- Toddler	Language	Hearing and understanding	Listens with interest to stories and rhymes.					٠	45
Infant- Toddler	Language	Hearing and understanding	Can identify (by pointing) objects in pictures and books.					•	46
Infant- Toddler	Language	Speaking	Constantly increases vocabulary using new words every month.					•	47
Infant- Toddler	Language	Speaking	Uses one- or two-word questions.					•	48
Infant- Toddler	Language	Speaking	Strings words together to communicate more complex ideas (e.g., "More juice"; "Mommy go");					•	49
Infant- Toddler	Language	Speaking	Uses more consonant sounds at the beginning of words and enunciates them more clearly.	L				•	50
Infant- Toddler	Motor Development	Hand	Uses hands with increasing precision.					•	51
Infant- Toddler	Integrated Eye- Hand and Cognitive Development	Building Skills and Concepts Using Special Materials	Stacks different-colored disks on dowels sorting by color to further develop hand control and color-matching skills.	,			•	•	52
Infant- Toddler	Integrated Eye- Hand and Cognitive Development	Building Skills and Concepts Using Special Materials	Stacks different-sized disks on dowels, sorting by color to further develop hand control and color-matching skills.				•	•	53
Infant- Toddler	Integrated Eye- Hand and Cognitive Development	Building Skills and Concepts Using Special Materials	Places different-sized balls and ellipsoids on small pegs to explore sizes and perception of part becoming whole.					٠	54
Infant- Toddler	Language	Hearing and Understanding	Can identify various body parts (by pointing).					•	56
Infant- Toddler	Language	Hearing and Understanding	Can comply with simple requests containing action and object (e.g., "Fetch the toy; Hold my hand").					٠	57
Infant- Toddler	Language	Hearing and Understanding	Can identify objects in pictures and books (by pointing).					•	58

Montessori Foundation Curriculum Scope and Sequence - Infant Programs: Birth to 18 months											
The following developmental milestones and educational goals will normally be met over the course of a Montessori Infant program for children from birth to 18 months											
Area	Strand	Lesson/Material	Curriculum Element	Birth - 3-6 3 mo. mo.	6-9 mo.	9-12 mo.	12-18 mo.	ID			
Infant- Toddler	Language	Speaking	Strings words together to communicate more complex ideas (e.g., "More juice; Mommy go").				•	59			


# Curriculum

Scope & Sequence The Todaler Curriculum

Toddler Half-Day Programs normally run for two or three hours a day. Full-day programs extend the day to include time for an afternoon nap and more indoor and outdoor activities. They tend to serve families with two working parents.

Some programs accept toddlers from fifteen months and older, although this lower age range may vary due to local regulations and the school's decision about how it wishes to organize the program.

Generally, the low end of fifteen months is followed because by that age, most children are fairly mobile and have become very independent.

Most toddler programs will begin with a somewhat older child of eighteen months, or even as old as twenty-four months. These groups will commonly include children up to thirty to thirty-six months of age, at which time children are usually ready to move into a Montessori three-to-six class.

The typical schedule in a half-day toddler class might look something like this:

- 1. Arrival, greeting, storing coat and bag, changing shoes, choosing work.
- 2. A work period of  $1^{1/2}$  to 2 hours.
- 3. Preparation and serving of a snack.
- 4. Group singing, finger plays, and movement to music: this is an activity in which toddlers may or may not choose to participate.



6. Dismissal. It is important that children move out of the toddler program to the next level not according to a simple age criteria but when they are developmentally ready (when they are no longer challenged in the toddler program and are showing signs of being bored). This normally occurs at about two years eight months of age.

We strongly recommend four- or five-day programs rather than offering two- or three-day options. Why? Because children, in general, and toddlers, in particular, need consistency and routine. Staff Ratio: In a group of ten to twelve toddlers, you would normally have a certified Montessori Infant-Toddler teacher and an assistant. Some states allow a higher adult-to-child ratio. This small class size and low adult-to-child ratio tends to make toddler programs more expensive, but, once again, the quality is well worth the higher cost.

# Understanding the Scope and Sequence Code ...

The Montessori Foundation • 19600 E SR 64 • Bradenton, FL 34212 941-729-9565 • www.montessori.org

# Toddler Curriculum . 2

#### How to Read the Code of Dots and Letters Used in the Scope and Sequence:

Montessori does not organize curriculum by the grade level at which topics are to be taught. We assume that children learn at different paces and learn best in different ways. In most cases, students in Montessori programs will work on any given skill or concept over several years. We introduce students to new lessons as soon as they seem to be ready. Likewise, we have a plan of what Montessori students ought to learn and the age/grade levels at which which we expect mastery from most students.

Instead of arranging our curriculum by grade level, we organize it by the subsets of concepts and skills (Strands) and the sequence in which they will be taught. In our Curriculum Scope and Sequence, to the right of the list of curriculum elements, we use a series of vertical columns to represent a given span of ages or grades. We use large dots to indicate the age or grade levels at which we anticipate a given lesson will be presented. Since we do not follow a grade-by-grade curriculum, the age or grade when a child will actually be ready to begin work depends on his or her developmental readiness. Our Dot Code is simply a guideline for Montessori educators.

When viewed in color on a computer, the dots follow a pattern of green, blue, and red, which is repeated at each Montessori three-year program cycle. The color coding makes it somewhat easier to see at which age/grade levels we anticipate children will work on concepts or skills. Normally, students return to work many times over two years or longer before they truly understand what they have studied and retain it over time.

	Montess	so <del>r</del> i Foundat	ion Curriculum Scop	e a	nd S	eq	uet	ice	: Aş	ges	3 t	o 12	2
	Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:												
Area	Strand	Lesson/Material	Curriculum Element	Age	3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Golden Bead Materials	Demonstrates an understanding of the concept of change between hierarchies, using additive quantities with Golden Bead Materials.		•	•	R						25
Mathematics	Decimal System: Introduction to Place Value: 2	Constructing Quantities with the Golden Beads and Number Cards	Constructs, identifies, and names the quantity (naming correctly from left to right), up to 9,999, represented by an assembly of Golden Beads.		•	•	R						26

As you can see by the example above, we expect that the two Math skills shown (items number 25 and 26) will normally be introduced at age four, and we anticipate that children will continue to work on them over the following year. The "R" shown in the 1st-grade column indicates that we suggest that the teachers ought to review and re-test to see if the child still understands the concept or skill. In some case the symbol "I" is used to indicate that a child should be given a first introduction to a concept or skill at a given age/grade level. Students often work on some concepts and skills over the course of several years.

Area	Strand	Lesson/Material	Curriculum Element	12-18 mo.	18-24 mo.	24-36 mo.	ID
Infant- Toddler	Motor Development	Equilibrium	Walks holding onto bar or furniture.	•			1
Infant- Toddler	Motor Development	Equilibrium	Walks independently.	•			2
Infant- Toddler	Motor Development	Hands	Coordinates use of both hands working together.	•			3
Infant- Toddler	Motor Development	Hand	Uses hands for purposeful work.	•			4
Infant- Toddler	Social and Emotional	Social Interactions	Engages in solitary or parallel play.	•			5
Infant- Toddler	Integrated Eye- Hand and Cognitive Development	Building skills and concepts using special materials	Works with simple puzzles to further develop eye-hand coordination - three-shape puzzles.	٠			6
Infant- Toddler	Integrated Eye- Hand and Cognitive Development	Building skills and concepts using special materials	Stacks different colored disks on dowels sorting by color to further develop hand control and color- matching skills.	•			7
Infant- Toddler	Integrated Eye- Hand and Cognitive Development	Building skills and concepts using special materials	Stacks different sized disks on dowels sorting by color to further develop hand control and color- matching skills.	٠			8
Infant- Toddler	Integrated Eye- Hand and Cognitive Development	Building skills and concepts using special materials	Places disks on horizontal dowels to develop supinated wrist movement and further develop eye-hand coordination.	•			9
Infant- Toddler	Integrated Eye- Hand and Cognitive Development	Building skills and concepts using special materials	Places different sized balls and ellipsoids on small pegs to explore sizes and perception of part becoming whole.	٠			10
Infant- Toddler	Integrated Eye- Hand and Cognitive Development	Building skills and concepts using special materials	Works with box with bins to develop various wrist movements and object permanence.	•			11
Infant- Toddler	Integrated Eye- Hand and Cognitive Development	Building skills and concepts using special materials	Works with box with sliding lid to develop wrist movements and object permanence.	•			12
Infant- Toddler	Cognitive Development	Exploration	Explores objects in a number of ways using all senses (e.g., Treasure Basket; Heuristic Play Collections.	•			13

Area	Strand	Lesson/Material	Curriculum Element	12-18 mo.	18-24 mo.	24-36 mo.	ID
Infant- Toddler	Cognitive Development	Concept formation	Begins to sort mixed collections of objects into categories.	•			14
Infant- Toddler	Motor Development	Equilib <del>r</del> ium	Walks carrying large and/or heavy objects; climbs stairs carrying objects in search of maximum effort.	•	•		15
Infant- Toddler	Motor Development	Equilib <del>r</del> ium	Runs.	•	•	•	16
Infant- Toddler	Motor Development	Equilibrium	Kicks a ball.	•	•	•	17
Infant- Toddler	Social and Emotional	Self-Awareness & Emotions	Displays growing awareness of self as separate from others.	•	•	•	18
Infant- Toddler	Social and Emotional	Self-Awareness & Emotions	Recognizes self in mirror.	•	•		19
Infant- Toddler	Social and Emotional	Self-Awareness & Emotions	Refers to self using own name.	•	•		20
Infant- Toddler	Social and Emotional	Social Interactions	Imitates behavior of others, including actions in songs and play activities.	•	•	•	21
Infant- Toddler	Social and Emotional	Social Interactions	Enjoys company of other children.	•	•	•	22
Infant- Toddler	Cognitive Development	Sorting and matching	Matches objects to pictures.	•	•	•	23
Infant- Toddler	Cognitive Development	Sorting and matching	Pairs identical pictures.	•	•	•	24
Infant- Toddler	Cognitive Development	Sorting and matching	Pairs related pictures.	•	•	•	25
Infant- Toddle <del>r</del>	Cognitive Development	Sorting and matching	Sorts objects by shape.	•	٠	•	26

Area	Strand	Lesson/Material	Cu <del>rri</del> culum Element	12-18 mo.	18-24 mo.	24-36 mo.	ID
Infant- Toddler	Cognitive Development	Sorting and matching	Sorts objects by color.	•	•	•	27
Infant- Toddler	Cognitive Development	Sorting and matching	Sorts objects by category (e.g., buttons, animals, beads, etc.).	•	٠	•	28
Infant- Toddler	Practical Life	Collaboration with adult in activities of daily living	Collaborates with adult in dishwashing.	•	•	•	29
Infant- Toddler	Practical Life	Collaboration with adult in activities of daily living	Collaborates with adult in flower arranging.	•	٠	•	30
Infant- Toddler	Practical Life	Collaboration with adult in activities of daily living	Collaborates with adult in folding activities.	•	•	•	31
Infant- Toddler	Practical Life	Collaboration with adult in activities of daily living	Collaborates with adult in food preparation.	•	٠	•	32
Infant- Toddler	Practical Life	Collaboration with adult in activities of daily living	Collaborates with adult in cleaning activities.	•	•	•	33
Infant- Toddler	Practical Life	Collaboration with adult in activities of daily living	Collaborates with adult in setting table for snack or lunch.	•	•	•	34
Infant- Toddler	Practical Life	Collaboration with adult in activities of daily living	Collaborates with adult in clearing table after snack or lunch.	•	•	•	35
Infant- Toddler	Practical Life	Collaboration with adult in activities of daily living	Collaborates with adult in sorting and folding laundry.	•	٠	•	36
Infant- Toddler	Practical Life	Collaboration with adult in activities of daily living	Collaborates with adult in pouring water and juice.	•	•	•	37
Infant- Toddler	Practical Life	Care of self - Eating	Feeds self with fingers.	•	٠	•	38
Infant- Toddler	Practical Life	Care of self - Eating	Collaborates with adult in feeding self at weaning table and chair.	•	•	•	39

Area	Strand I	Lesson/Material	Curriculum Element	12-18 mo.	18-24 mo.	24-36 mo.	ID
Infant- Toddler	Practical Life	Care of self - Eating	Uses a spoon.	•	٠	•	40
Infant- Toddler	Practical Life	Care of self - Eating	Drinks from a teaspoon offered by adult.	•	•	•	41
Infant- Toddler	Practical Life	Care of self - Eating	Drinks from a cup.	•	٠	•	42
Infant- Toddler	Language	Hearing and understanding	Can identify (by pointing) various body parts.	•	•		43
Infant- Toddler	Language	Hearing and understanding	Can comply with simple requests containing action and object (Fetch the toy, hold my hand).	•	٠		44
Infant- Toddler	Language	Hearing and understanding	Listens with interest to stories and rhymes.	•	•		45
Infant- Toddler	Language	Hearing and understanding	Can identify (by pointing) objects in pictures and books.	•	٠		46
Infant- Toddler	Language	Speaking	Constantly increases vocabulary using new words every month.	•	•		47
Infant- Toddler	Language	Speaking	Uses one- or two-word questions.	•	٠		48
Infant- Toddler	Language	Speaking	Strings words together to communicate more complex ideas (e.g., "More juice"; "Mommy go");	•	•		49
Infant- Toddler	Language	Speaking	Uses more consonant sounds at the beginning of words and enunciates them more clearly.	•	٠		50
Infant- Toddler	Motor Development	Hand	Uses hands with increasing precision.	•			51
Infant- Toddler	Integrated Eye- Hand and Cognitive Development	Building Skills and Concepts Using Special Materials	Stacks different-colored disks on dowels, sorting by color to further develop hand control and color-matching skills.	•			52

Area	Strand	Lesson/Material	Curriculum Element	12-18 mo.	18-24 mo.	24-36 mo.	ID
Infant- Toddler	Integrated Eye- Hand and Cognitive Development	Building Skills and Concepts Using Special Materials	Stacks different-sized disks on dowels, sorting by color to further develop hand control and color-matching skills.	•			53
Infant- Toddle <del>r</del>	Integrated Eye- Hand and Cognitive Development	Building Skills and Concepts Using Special Materials	Places different-sized balls and ellipsoids on small pegs to explore sizes and perception of part becoming whole.	•			54
Infant- Toddler	Language	Hearing and Understanding	Can identify various body parts (by pointing).	•			56
Infant- Toddler	Language	Hearing and Understanding	Can comply with simple requests containing action and object (e.g., "Fetch the toy; Hold my hand").	•			57
Infant- Toddler	Language	Hearing and Understanding	Can identify objects in pictures and books (by pointing).	•			58
Infant- Toddler	Language	Speaking	Strings words together to communicate more complex ideas (e.g., "More juice; Mommy go").	•			59



# Curriculum Scope & Sequence The Practical Life Curriculum

Developing new skills that will enable us to live full and productive lives is something that all of us encounter throughout the years. It's not just a process for the very young.

Competence, independence, willingness to embrace the challenges of change are, quite possibly, the most important building blocks of the Montessori Method. These skills will enable children to thrive – and not just survive – in their lives. We can help our children learn to read, do math, and understand science, but how can we prepare them for the changes, life experiences, and new technology they will face throughout their lifetime, when we can't even begin to imagine what the future will hold? And so, in Montessori, we provide opportunities to help our children learn these skills at the most basic level: Practical Life.

Shoelaces learn to be tied; however, knots do happen. Liquids get spilled during pouring. Spooning exercises might run amok at the beginning with beans or marbles strewn on the floor. But that's OK in a Montessori classroom. It's not failure; it's an opportunity to practice and refine skills, while taking responsibility for restoring order and caring for the classroom environment.

Montessori provides a safe environment to experiment and learn without fear of embarrassment or reprimand. The 'oops factor' is an expected, and necessary, part of the process. As adults, we know how tempting it is to play it safe and only do what we know how to do well. It takes



courage and self-confidence to risk the awkwardness of trying something new: whether it's pouring water from a childsized pitcher or learning to play tennis as an adult.

One outcome of Montessori education for former students is their ongoing willingness to adapt to change, while pursuing new ideas and new ventures. They understand that it is not always possible to be the best at everything when they first begin, but, when they are able to measure their efforts against their own sense of self, instead of looking for validation from others, there is a greater internal satisfaction and joy in their progress and accomplishment.

> Understanding the Scope and Sequence Code ...

The Montessori Foundation • 19600 E SR 64 • Bradenton, FL 34212 941-729-9565 • www.montessori.org

Practical Life Curriculum . 2

#### How to Read the Code of Dots and Letters Used in the Scope and Sequence:

Montessori does not organize curriculum by the grade level at which topics are to be taught. We assume that children learn at different paces and learn best in different ways. In most cases, students in Montessori programs will work on any given skill or concept over several years. We introduce students to new lessons as soon as they seem to be ready. Likewise, we have a plan of what Montessori students ought to learn and the age/grade levels at which which we expect mastery from most students.

Instead of arranging our curriculum by grade level, we organize it by the subsets of concepts and skills (Strands) and the sequence in which they will be taught. In our Curriculum Scope and Sequence, to the right of the list of curriculum elements, we use a series of vertical columns to represent a given span of ages or grades. We use large dots to indicate the age or grade levels at which we anticipate a given lesson will be presented. Since we do not follow a grade-by-grade curriculum, the age or grade when a child will actually be ready to begin work depends on his or her developmental readiness. Our Dot Code is simply a guideline for Montessori educators.

When viewed in color on a computer, the dots follow a pattern of green, blue, and red, which is repeated at each Montessori three-year program cycle. The color coding makes it somewhat easier to see at which age/grade levels we anticipate children will work on concepts or skills. Normally, students return to work many times over two years or longer before they truly understand what they have studied and retain it over time.

	Montess C	sori Foundat commonly, by the e rill be able to demo	ion Curriculum Scop and of the span of age or grade 1 onstrate the following skills, kno	e a evel wled	nd S indica	eq ated d/or	uet belo	nce: w, sti ersta	Aq uden ndin	ges ts g:	3 t	o 12	2
Area	Strand	Lesson/Material	Curriculum Element	Age	3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Golden Bead Materials	Demonstrates an understanding of the concept of change between hierarchies, using additive quantities with Golden Bead Materials.		•	•	R					6	25
Mathematics	Decimal System: Introduction to Place Value: 2	Constructing Quantities with the Golden Beads and Number Cards	Constructs, identifies, and names the quantity (naming correctly from left to right), up to 9,999, represented by an assembly of Golden Beads.		•	•	R						26

As you can see by the example above, we expect that the two Math skills shown (items number 25 and 26) will normally be introduced at age four, and we anticipate that children will con- tinue to work on them over the following year. The "R" shown in the 1st-grade column indi- cates that we suggest that the teachers ought to review and re-test to see if the child still understands the concept or skill. In some case the symbol "I" is used to indicate that a child should be given a first introduction to a concept or skill at a given age/grade level. Students often work on some concepts and skills over the course of several years.

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age	4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Practical Life	Control of Movement	Carrying, fetching, and using essential classroom items	Carries, unrolls, and rolls a rug.	• •	•	•						1
Practical Life	Control of Movement	Carrying, fetching, and using essential classroom items	Works on a rug.	• •	•	•						2
Practical Life	Control of Movement	Carrying, fetching, and using essential classroom items	Handles delicate objects with care and precision.	•	•	•						4
Practical Life	Control of Movement	Carrying, fetching, and using essential classroom items	Returns materials to correct place in environment.	• •	•	•						5
Practical Life	Control of Movement	Carrying, fetching, and using essential classroom items	Walks slowly and calmly.	• •	•	•						6
Practical Life	Control of Movement	Carrying, fetching, and using essential classroom items	Walks avoiding people and objects.	• •	•	•						7
Practical Life	Control of Movement	Carrying, fetching, and using essential classroom items	Walks carrying a tray with an object on it without dropping or spilling contents.	• •	•	•						8
Practical Life	Control of Movement	Carrying, fetching, and using essential classroom items	Lifts and puts down a chair quietly and with control.	• •	•	•						9
Practical Life	Control of Movement	Carrying, fetching, and using essential classroom items	Carries a chair carefully without bumping into people or furniture.	• •	•	•						10
Practical Life	Control of Movement	Carrying, fetching, and using essential classroom items	Sits on a chair, upright, with feet on floor.	• •	•	•						11
Practical Life	Control of Movement	Carrying, fetching, and using essential classroom items	Lifts, carries and puts down a table together with another person.	• •	•	•						12
Practical Life	Control of Movement	Carrying, fetching, and using essential classroom items	Opens and closes a faucet/tap.	• •	•	•						13
Practical Life	Control of Movement	Carrying, fetching, and using essential classroom items	Fetches water in a pail.	• •	•	•						14

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st 2nd	3rd	4th 5th	6th	ID #
Practical Life	Control of Movement	Opening and closing	Opens and shuts various latches on frames.	• • •	•				15
Practical Life	Control of Movement	Opening and closing	Matches nuts and bolts.	• • •	•				16
Practical Life	Control of Movement	Opening and closing	Matches keys and locks.	• • •	•				17
Practical Life	Control of Movement	Opening and closing	Opens and closes boxes.	• • •	•				18
Practical Life	Control of Movement	Opening and closing	Opens and closes tins and jars.	• • •	•				19
Practical Life	Control of Movement	Opening and closing	Opens and closes bottles.	• • •	•				20
Practical Life	Control of Movement	Pouring, transferring, and other basic movements	Pours dry ingredients from one pitcher to another.	• • •					21
Practical Life	Control of Movement	Pouring, transferring, and other basic movements	Pours water between two identical pitchers.	• • •					22
Practical Life	Control of Movement	Pouring, transferring, and other basic movements	Pours water from one large pitcher into two smaller identical pitchers.	• • •					23
Practical Life	Control of Movement	Pouring, transferring, and other basic movements	Pours water from one large container into two different-sized containers.	• • •					24
Practical Life	Control of Movement	Pouring, transferring, and other basic movements	Pours water to a specified level in a graduated container.	• • •					25
Practical Life	Control of Movement	Pouring, transferring, and other basic movements	Pours water through a funnel into a narrow- necked container.	• • •					26
Practical Life	Control of Movement	Pouring, transferring, and other basic movements	Sieves dry ingredients to separate example, rice and flour.	• • •					27

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age	4 KG	1st	2nd	3rd 4	łth	5th	6th	ID #
Practical Life	Control of Movement	Pouring, transferring, and other basic movements	Uses a spoon to transfer dry ingredients from one container to another.	• •	•							28
Practical Life	Control of Movement	Pouring, transferring, and other basic movements	Uses a spoon to transfer liquid from one container to another.	• •	•							29
Practical Life	Control of Movement	Pouring, transferring, and other basic movements	Transfers water using a baster.	• •	•							30
Practical Life	Control of Movement	Pouring, transferring, and other basic movements	Transfers water one drop at a time using a dropper or pipette.	• •	•							31
Practical Life	Control of Movement	Pouring, transferring, and other basic movements	Uses tongs to transfer items from one container to another.	• •	•							32
Practical Life	Control of Movement	Pouring, transferring, and other basic movements	Uses hand whisk to create bubbles in water and soap mixture.	• •	•							33
Practical Life	Control of Movement	Pouring, transferring, and other basic movements	Hammers using Hammer Boards.	• •	•							34
Practical Life	Control of Movement	Pouring, transferring, and other basic movements	Assembles a flashlight.	• •	•							35
Practical Life	Control of Movement	Fine-motor skills/dexterity	Lifts small items with tweezers: (example: dry peas) /pincer grip.	• •	•	•						36
Practical Life	Control of Movement	Fine-motor skills/dexterity	Uses fingers and moves them individually in various combinations appropriate to object being manipulated.	• •	•	•						37
Practical Life	Control of Movement	Fine-motor skills/dexterity	Uses precise movements of fingers for various activities.	• •	•	•						38
Practical Life	Control of Movement	Fine-motor skills/dexterity	Uses precise movements of fingers to control a pencil for writing.	• •	•	•						39
Practical Life	Control of Movement	Fine-motor skills/dexterity	Uses correct pincer grip when grasping a pencil.	• •	•	•						40

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Practical Life	Control of Movement	Fine-motor skills/dexterity	Holds scissors correctly and uses small movements of thumb and middle fingers to control the opening and closing of the blades	•••	•						41
Practical Life	Control of Movement	Refine movement: Gross motor	Walks around a maze built from the Red Rods without touching.	• • •	•						42
Practical Life	Control of Movement	Refine movement: Gross motor	Walks around furniture without bumping.	• • •	•						43
Practical Life	Control of Movement	Refine movement: Gross motor	Ascends and descends stairs safely and gracefully.	• • •	•						44
Practical Life	Control of Movement	Refine movement: open and shut	Opens and shuts all doors and gates, showing awareness of safety implications, checking that all doors and gates are securely latched when necessary.	• •	•						45
Practical Life	Control of Movement	Refine movement: open and shut	Opens and shuts classroom door.	• • •	•						46
Practical Life	Control of Movement	Refine movement: Silence	Is silent for brief period during introduction to Silence Game.	• • •	•						47
Practical Life	Control of Movement	Refine movement: Silence	Is able to remain silent in relaxed position.	• • •	•						48
Practical Life	Control of Movement	Refine movement: Silence	Is able to be silent in response to a signal.	• • •	•						49
Practical Life	Control of Movement	Refine movement: Silence	Maintains silence, then responds to name when whispered.	• • •	•						50
Practical Life	Control of Movement	Refine movement: Silence	Maintains silence, then acts on commands given in whisper.	• • •	•						51
Practical Life	Control of Movement	Refine movement: Silence	Watches someone work, in silence, without touching.	• • •	•						52
Practical Life	Control of Movement	Refine movement: Silence	Voluntarily chooses to be silent alone or with a small group.	• • •	•						53

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd 4	th	5th	6th	ID #
Practical Life	Control of Movement	Refine movement: The line	Walks on the line.	• • •	•						54
Practical Life	Control of Movement	Refine movement: The line	Walks on the line - heel to toe.	• • •	•						55
Practical Life	Control of Movement	Refine movement: The line	Walks on the line with hands at sides.	• • •	•						56
Practical Life	Control of Movement	Refine movement: The line	Walks on the line, hands at sides, head erect.	• • •	•						57
Practical Life	Control of Movement	Refine movement: The line	Walks on the line carrying an object in one hand. (e.g., Pink Tower cubes).	• • •	•						58
Practical Life	Control of Movement	Refine movement: The line	Walks on the line carrying an object in two hands (e.g., a tray).	• • •	•						59
Practical Life	Control of Movement	Refine movement: The line	Walks on the line carrying a bell without ringing it.	• • •	•						60
Practical Life	Control of Movement	Refine movement: The line	Walks on the line carrying a pendulum without swinging it.	• • •	•						61
Practical Life	Control of Movement	Refine movement: The line	Walks on the line carrying a glass filled to the brim with water.	• • •	•						62
Practical Life	Control of Movement	Refine movement: The line	Walks on the line, adjusting tempo to that of group.	• • •	•						63
Practical Life	Control of Movement	Refine movement: The line	Walks on line in step with rhythms played on an instrument	• • •	•						64
Practical Life	Control of Movement	Refine movement: The line	Walks on a balance beam or low wall.	• • •	•						65
Practical Life	Control of Movement	Making choices	Makes choices showing an ability to suppress impulse and follow guidance.	• • •	•						66

	Montes	sori Foundat	ion Cu <del>rr</del> iculum Scop	e and S	eqı	ıen	ce:	Ag	es	<b>3 t</b>	o 12	2
	(	Commonly, by the ex will be able to demo	nd of the span of age or grade l nstrate the following skills, kno	levels indica wledge, and	ted b l/or	oelow unde	v, stu erstan	dent iding	s ;:			
Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Practical Life	Care of Person	Preliminary care of possessions	Carries bag to cubby.	• •	•	•						67
Practical Life	Care of Person	Preliminary care of possessions	Places own bag in correct cubby.	• •	•	•						68
Practical Life	Care of Person	Preliminary care of possessions	Keeps cubby tidy.	• •	•	•						69
Practical Life	Care of Person	Preliminary care of possessions	Hangs coat on hook or hanger.	• •	•	•						70
Practical Life	Care of Person	Preliminary care of possessions	Packs a lunch box.	• •	•	•						71
Practical Life	Care of Person	Preliminary care of possessions	Pairs and rolls socks.	• •	•	•						72
Practical Life	Care of Person	Preliminary hygiene	Uses bathroom under supervision.	• •	•							73
Practical Life	Care of Person	Preliminary hygiene	Uses bathroom unsupervised.	•	•	•						74
Practical Life	Care of Person	Preliminary hygiene	Lifts seat when using toilet (boys).	• •	•	•						75
Practical Life	Care of Person	Preliminary hygiene	Flushes toilet after use.	• •	•	•						76
Practical Life	Care of Person	Preliminary hygiene	Uses toilet paper (judges correct quantity) and flushes.	• •	•	•						77
Practical Life	Care of Person	Preliminary hygiene	Replaces toilet-paper roll when necessary.	• •	•	•						78
Practical Life	Care of Person	Preliminary hygiene	Covers mouth when coughing or sneezing.	• •	•	•						79

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Practical Life	Care of Person	Preliminary hygiene	Washes hands after using the toilet, handling classroom pet, gardening, playing outside, and before preparing food or eating.	• • •	•						80
Practical Life	Care of Person	Care of possessions: additional	Packs a suitcase.	• • •	•						81
Practical Life	Care of Person	Care of possessions: additional	Polishes shoes.	• • •	•						82
Practical Life	Care of Person	Dressing Frames	Opens and closes Velcro fastening on Dressing Frame.	• • •							83
Practical Life	Care of Person	Dressing Frames	Opens and closes snappers on Dressing Frame.	• • •							84
Practical Life	Care of Person	Dressing Frames	Opens and closes zippers on Dressing Frame.	• • •							85
Practical Life	Care of Person	Dressing Frames	Opens and closes buttons on Dressing Frame.	• • •							86
Practical Life	Care of Person	Dressing Frames	Opens and closes hooks & eyes on Dressing Frame.	• • •							87
Practical Life	Care of Person	Dressing Frames	Opens and closes buckles on Dressing Frame.	• • •							88
Practical Life	Care of Person	Dressing Frames	Unties and ties bows on Dressing Frame.	• • •							89
Practical Life	Care of Person	Dressing Frames	Unties and ties laces on Dressing Frame.	• • •							90
Practical Life	Care of Person	Dressing Frames	Opens and closes safety pins on Dressing Frame.	• • •							91
Practical Life	Care of Person	Everyday Dressing of Oneself	Puts on socks without assistance.	• • •							92

	Montes	sori Foundat	ion Curriculum Scop	e an	d S	eq	uen	ice:	Ag	es	<b>3</b> to	o 12	2
	(	Commonly, by the e will be able to demo	nd of the span of age or grade l nstrate the following skills, kno	evels ir wledge	ndica , anc	ited l l/or	oelov unde	w, stu erstai	ident nding	s ;:			
Area	Strand	Lesson/Material	Curriculum Element	Age 3 /	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Practical Life	Care of Person	Everyday Dressing of Oneself	Puts on jacket without assistance.	•	•	•							93
Practical Life	Care of Person	Everyday Dressing of Oneself	Puts on a sweater without assistance.	•	•	•							94
Practical Life	Care of Person	Everyday Dressing of Oneself	Puts on shoes (Velcro or no fastener) without assistance.	•	•	•							95
Practical Life	Care of Person	Everyday Dressing of Oneself	Puts on shoes (ties laces) without assistance.		•	•							96
Practical Life	Care of Person	Everyday Dressing of Oneself	Changes from outside to inside shoes without assistance.	•	•	•							97
Practical Life	Care of Person	Everyday Dressing of Oneself	Puts on trousers without assistance.	•	•	•							98
Practical Life	Care of Person	Everyday Dressing of Oneself	Puts on an apron without assistance.	•	•	•							99
Practical Life	Care of Person	Dressing	Puts on gloves and mittens without assistance.	•	•	•							100
Practical Life	Care of Person	Dressing	Manages all own dressing/changing needs without assistance.		•	•	•						101
Practical Life	Care of Person	Dressing	Helps other children with dressing/changing needs.		•	•	•						102
Practical Life	Care of Person	Grooming	Sensitizes fingers for Sensorial activities.	•	•	•	•						103
Practical Life	Care of Person	Grooming	Washes own hands and nails, and applies hand-cream (full activity).	•	•	•	•						104
Practical Life	Care of Person	Grooming	Cares for own nails.	•	•	•	•						105

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Practical Life	Care of Person	Grooming	Brushes and combs own hair.	• •	•	•						106
Practical Life	Care of Person	Grooming	Braids/plaits nylon cords using Braiding Activity.	• •	•							107
Practical Life	Care of Person	Grooming	Braids/plaits hair (own, other child, or hairdresser's dummy).	• •	•							108
Practical Life	Care of Person	Grooming	Uses a clothes brush to remove lint from coat.	• •	•							109
Practical Life	Care of Person	Grooming	Chooses appropriate clothing for various types of outings, as is age appropriate.	• •	•	•						110
Practical Life	Care of Person	Grooming	Performs manicure on another.	•	•	•						111
Practical Life	Care of Person	Grooming	Is aware of and takes pride in own appearance, appropriate to circumstance and occasion.	•	•	•						112
Practical Life	Care of Person	First aid	Cleans a wound (minor cut or graze) on self or another.	• •	•	•						113
Practical Life	Care of Person	First aid	Puts a Band-Aid <sup>™</sup> on a wound (minor cut or graze on self or another).	• •	•	•						114
Practical Life	Care of Person	First aid	Asks for help when caring for an injured person.	• •	•	•						115
Practical Life	Care of Person	First aid	Shows empathy and consideration for an injured person.	• •	•	•						116
Practical Life	Care of Person	First aid	Takes temperature using a safety thermometer.	• •	•	•						117
Practical Life	Care of person	First aid	Is aware of dangers of touching blood; uses latex gloves whenever helping an injured person.	••	•	•						118

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd ·	4th	5th	6th	ID #
Practical Life	Care of Person	First aid	Cares for a bug bite or sting.	• •	•						119
Practical Life	Care of Person	Hygiene other	Brushes own teeth after meals.	• • •	•						120
Practical Life	Care of Person	Hygiene other	Displays an understanding of necessity for hygiene in classroon and public contexts.	n • •	•						121
Practical Life	Care of Person	Safety: Crossing the road	Waits to be accompanied by an adult or much older child before crossing a street.	• • •							122
Practical Life	Care of Person	Safety: Crossing the road	Is able to safely cross a street unaccompanied.	• •	•						123
Practical Life	Care of Person	Safety: Crossing the road	Safely escorts younger child across street.	• •	•						124
Practical Life	Care of Person	Safety: General safety and security	Chooses appropriate clothing for varied weather conditions and safety considerations when going out.	• •	•						125
Practical Life	Care of Person	Safety: General safety and security	Understands and respects school security protocols.	• • •	•						126
Practical Life	Care of Person	Safety: General safety and security	Displays an awareness of the dangers inherent in speaking to strangers.	• • •	•						127
Practical Life	Care of Person	Safety: Sun sense	Applies sunscreen, when prompted, before going outside.	• • •							128
Practical Life	Care of Person	Safety: Sun sense	Applies sunscreen, when unprompted, before going outside.	• • •	•						129
Practical Life	Care of Person	Safety: Sun sense	Wears sun hat or cap when going outside.	• •	•						130
Practical Life	Care of Person	Safety: Sun sense	Displays an understanding of the dangers of going out in the sun without adequate protection.	• •	•						131

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd 4	th	5th	6th	ID #
Practical Life	Care of Person	Safety: Tools and utensils	Uses goggles & gloves, when appropriate, for safety reasons when engaging in woodwork and science projects.	• • •	•						132
Practical Life	Care of Person	Safety: Tools and utensils	Carries a knife, pair of scissors, pencil, or other sharp object safely.	• • •	•						133
Practical Life	Care of Person	Safety: Tools and utensils	Passes a knife, pair of scissors, pencil, or other sharp object safely.	• • •	•						134
Practical Life	Care of Person	Safety: Tools and utensils	Handles potentially dangerous objects safely, under age- appropriate supervision.	• • •	•						135
Practical Life	Care of Environment	Preliminary care of environment	Sweeps dry beans on tray using small brush and pan.	• • •							136
Practical Life	Care of Environment	Preliminary care of environment	Dusts an object.	• • •							137
Practical Life	Care of Environment	Preliminary care of environment	Clamps clothespins, using Clothespin Activity.	• • •							138
Practical Life	Care of Environment	Preliminary care of environment	Folds napkins along lines, using Folding Activity.	• • •							139
Practical Life	Care of Environment	Preliminary care of environment	Wipes a water spill with a cloth.	• • •							140
Practical Life	Care of Environment	Preliminary care of environment	Squeezes a sponge, using Sponging Activity.	• • •							141
Practical Life	Care of Environment	Preliminary care of environment	Transfers water, using a Sponging Activity.	• • •							142
Practical Life	Care of Environment	Preliminary care of environment	Rolls napkins and places in napkin rings, using Napkin- Rolling Activity.	• • •							143
Practical Life	Care of Environment	Preliminary care of environment	Sweeps sawdust or beans as demonstrated.	• • •							144

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd 4	łth	5th	6th	ID #
Practical Life	Care of Environment	Tidying	Folds napkins from laundry and tidies away.	• • •	•						145
Practical Life	Care of Environment	Tidying	Uses classroom recycling bins correctly.	• • •	•						146
Practical Life	Care of Environment	Tidying	Hangs a towel on a hook.	• • •	•						147
Practical Life	Care of Environment	Tidying	Folds classroom clothes.	• • •	•						148
Practical Life	Care of Environment	Tidying	Tidies shelves.	• • •	•						149
Practical Life	Care of Environment	Tidying	Opens and closes classroom curtains and blinds.	• • •	•						150
Practical Life	Care of Environment	Tidying	Empties classroom waste bin.	• • •	•						151
Practical Life	Care of Environment	Polishing & dusting	Dusts a shelf.	• • •	•						152
Practical Life	Care of Environment	Polishing & dusting	Polishes wood.	• • •							153
Practical Life	Care of Environment	Polishing & dusting	Polishes metals.	• • •	•						154
Practical Life	Care of Environment	Polishing & dusting	Polishes mirror or glass.	• • •	•						155
Practical Life	Care of Environment	Polishing & dusting	Determines appropriate cleaning materials and methods for different objects.	• •	•						156
Practical Life	Care of Environment	Care of dishes and cooking utensils	Washes crockery (plates, cups, etc.).	• • •	•						157

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd 4	th	5th	6th	ID #
Practical Life	Care of Environment	Care of dishes and cooking utensils	Washes silverware/cutlery.	• • •	•						158
Practical Life	Care of Environment	Care of dishes and cooking utensils	Washes glasses.	• • •	•						159
Practical Life	Care of Environment	Care of dishes and cooking utensils	Washes china.	• • •	•						160
Practical Life	Care of Environment	Care of dishes and cooking utensils	Washes pots and pans.	• • •	•						161
Practical Life	Care of Environment	Care of dishes and cooking utensils	Washes mixed dishes.	• • •	•						162
Practical Life	Care of Environment	Care of dishes and cooking utensils	Sorts silverware/cutlery.	• • •	•						163
Practical Life	Care of Environment	Care of dishes and cooking utensils	Stacks dishes.	• • •	•						164
Practical Life	Care of Environment	Care of dishes and cooking utensils	Washes a mixed collection of dishes.	• • •	•						165
Practical Life	Care of Environment	Care of dishes and cooking utensils	Washes and dries stainless steel sink.	• • •	•						166
Practical Life	Care of Environment	Care of dishes and cooking utensils	Loads, sets, and unloads dishwasher.	• • •	•	•					167
Practical Life	Care of Environment	Care of indoor plants	Waters indoor plants.	• • •	•						168
Practical Life	Care of Environment	Care of indoor plants	Polishes plant leaves.	• • •	•						169
Practical Life	Care of Environment	Care of indoor plants	Repots indoor plants.	• • •	•						170

	Monte	<b>essori Founda</b> Commonly, by the	tion Curriculum Scop	e and Sequence: Ages 3 to levels indicated below, students	o 12
		will be able to dem	onstrate the following skills, kno	owledge, and/or understanding:	
Area	Strand	Lesson/Mate <del>ri</del> al	Curriculum Element	Age 3 Age 4 KG 1st 2nd 3rd 4th 5th	6th ID #
Practical Life	Care of Environment	Care of surfaces	Washes a waterproof surface.	• • • •	171
Practical Life	Care of Environment	Care of surfaces	Mops (dusts) a dry floor.	• • • •	172
Practical Life	Care of Environment	Care of surfaces	Washes an unpainted surface/scrubs a table.	• • • •	173
Practical Life	Care of Environment	Care of surfaces	Washes marks and scuffs from walls.	• • • •	174
Practical Life	Care of Environment	Care of surfaces	Erases a chalkboard/white board	L.	175
Practical Life	Care of Environment	Care of surfaces	Empties carpet sweeper.	• • • •	176
Practical Life	Care of Environment	Care of surfaces	Wipes a large water spill, wringing cloth into pail.	g • • • •	177
Practical Life	Care of Environment	Care of surfaces	Sweeps classroom floor when necessary.	• • • •	178
Practical Life	Care of Environment	Care of surfaces	Washes a vinyl floor.	• • • •	179
Practical Life	Care of Environment	Care of surfaces	Mops a wet floor.	• • • •	180
Practical Life	Care of Environment	Care of surfaces	Sweeps carpet with carpet sweeper.	• • • •	181
Practical Life	Care of Environment	Care of surfaces	Vacuums carpet.	• • • •	182
Practical Life	Care of Environment	Care of surfaces	Washes a glass surface.	• • • •	183

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Practical Life	Care of Environment	Care of surfaces	Wipes feet on doormat when entering a building.	• • •	•						184
Practical Life	Care of Environment	Care of surfaces	Uses a shoe scraper.	• • •	•						185
Practical Life	Care of Environment	Decorating	Arranges flowers for classroom.	• • •	•						186
Practical Life	Care of Environment	Decorating	Cuts flowers for arranging.	• • •	•						187
Practical Life	Care of Environment	Decorating	Hangs wall decorations (pictures, clock, etc.).	• • •	•						188
Practical Life	Care of Environment	Laundry	Sorts and folds mixed, dry laundry, and returns to correct places in classroom.	• • •	•						189
Practical Life	Care of Environment	Laundry	Hangs wet towels and cloths out to dry.	• • •	•						190
Practical Life	Care of Environment	Laundry	Hand-washes classroom cloths.	• • •	•						191
Practical Life	Care of Environment	Laundry	Sorts classroom cloths for washing.	• • •	•						192
Practical Life	Care of Environment	Laundry	Washes classroom cloths in machine.	• •	•						193
Practical Life	Care of Environment	Laundry	Rinses clothes that have been washed.	• • •	•						194
Practical Life	Care of Environment	Laundry	Hangs washed items out to dry.	• • •	•						195
Practical Life	Care of Environment	Laundry	Irons cloths.	• •	•						196

	Monte	ssori Foundat	ion Curriculum Scop	e and S	Seq	uen	ice:	Ag	es 3	3 to	o 12	}
		Commonly, by the e will be able to demo	nd of the span of age or grade l nstrate the following skills, kno	evels indic wledge, an	ated l d/or	belov unde	v, stu erstan	dents .ding:				
Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	4 KG	1st	2nd	3rd 4	tth 5	ōth	6th	ID #
Practical Life	Care of Environment	Care of animal	Helps to care for classroom pets.	• •	•	•						197
Practical Life	Care of Environment	Care of animal	Holds classroom pet appropriately.	• •	•	•						198
Practical Life	Care of Environment	Care of animal	Provides fresh water for classroom pet.	• •	•	•						199
Practical Life	Care of Environment	Care of animal	Feeds classroom pets.	• •	•	•						200
Practical Life	Care of Environment	Care of playground toys	Picks up playground toys and stores correctly.	• •	•	•						201
Practical Life	Care of Environment	Care of playground toys	Cleans playground toys and other equipment.	• •	•	•						202
Practical Life	Care of Environment	Care of playground toys	Notices and alerts staff when playground equipment needs repair.	•	•	•						203
Practical Life	Care of Environment	Care of wildlife	Fills bird feeder.	• •	•	•						204
Practical Life	Care of Environment	Care of wildlife	Fills birdbath.	• •	•	•						205
Practical Life	Care of Environment	Care of wildlife	Cleans birdbath.	• •	•	•						206
Practical Life	Care of Environment	Gardening	Digs garden beds.	• •	•	•						207
Practical Life	Care of Environment	Gardening	Waters the garden using a watering can - demarcated area.	• •	•	•						208
Practical Life	Care of Environment	Gardening	Spreads mulch in garden.	• •	•	•						209

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Practical Life	Care of Environment	Gardening	Harvests fruit or vegetable crops as indicated by adult or older child.	• • •	•						210
Practical Life	Care of Environment	Gardening	Hoes garden beds.	• • •	•						211
Practical Life	Care of Environment	Gardening	Prepares soil for planting.	• • •	•						212
Practical Life	Care of Environment	Gardening	Plants seedlings in small garden beds.	• • •	•						213
Practical Life	Care of Environment	Gardening	Plants seeds in small garden beds.	• • •	•						214
Practical Life	Care of Environment	Gardening	Rakes lawn or beds.	• • •	•						215
Practical Life	Care of Environment	Gardening	Removes weeds identified by adult or older child.	• • •	•						216
Practical Life	Care of Environment	Gardening	Picks up litter, discerning what is litter, and appropriate disposal.	• • •	•						217
Practical Life	Care of Environment	Gardening	Sweeps outside spaces (e.g., pathways or deck).	• • •	•						218
Practical Life	Care of Environment	Gardening	Pushes a wheel barrow containing garden waste.	• • •	•						219
Practical Life	Care of Environment	Gardening	Waters the garden using a watering can - unlimited area.	• •	•						220
Practical Life	Care of Environment	Gardening	Harvests fruit or vegetable crops from garden, displaying understanding of when fruits/vegetables are ripe.	• •	•						221
Practical Life	Care of Environment	Gardening	Waters the garden using a hose pipe - demarcated area.	• •	•						222

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 K	G 1st	2nd 3	ord 4th	5th	6th	ID #
Practical Life	Care of Environment	Gardening	Waters the garden as required, displaying judgment as to water needs of various plants.	• •	•					223
Practical Life	Care of Environment	Gardening	Identifies weeds and alien plants in school garden and understands why they are a problem.	• •	•					224
Practical Life	Care of Environment	Names and use of plants & animals in garden	Verbalizes (and follows) fundamental safety rules regarding eating of plants: "Don't eat any plant material unless you know exactly what it is and have been told by an adult that it is safe to eat."	•••	•					225
Practical Life	Care of Environment	Names and use of plants & animals in garden	Identifies herbs in school garden and understands their use.	• • •	•					226
Practical Life	Care of Environment	Names and use of plants & animals in garden	Identifies other plants in school garden and understands their use.	• • •	•					227
Practical Life	Care of Environment	Names and use of plants & animals in garden	Identifies fruits and vegetables in school garden and understands their use.	• • •	•					228
Practical Life	Care of Environment	Names and use of plants & animals in garden	Identifies various insects found in school garden and understands their role.	• • •	•					229
Practical Life	Care of Environment	Names and use of plants & animals in garden	Identifies indigenous plants in the school garden and understands how to preserve them.	•	•					230
Practical Life	Classroom Skills	Library and media	Handles books carefully, turning pages in a way that will not cause damage.	• • •	•					231
Practical Life	Classroom Skills	Library and media	Arranges books neatly on shelf.	• • •	•					232
Practical Life	Classroom Skills	Library and media	Returns book to shelf, moving other books in order to replace it.	• • •	•					233
Practical Life	Classroom Skills	Library and media	Handles CDs and DVDs carefully, not touching surface.	• • •	•					234
Practical Life	Classroom Skills	Library and media	Plays CDs and DVDs.	• • •	•					235

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG 1	st 2nd	l 3rd	4th	5th	6th	ID #
Practical Life	Classroom Skills	Library and media	Arranges books on the shelf: according to Dewey, alphabetical, or some other classification.	•	• •						236
Practical Life	Classroom Skills	Materials and stationery	Sharpens pencils when necessary.	• •	•						237
Practical Life	Classroom Skills	Materials and stationery	Handles scissors effectively and safely.	• •	• (						238
Practical Life	Classroom Skills	Materials and stationery	Uses paper clips or bulldog clips effectively and appropriately.	• •	•						239
Practical Life	Classroom Skills	Materials and stationery	Uses a stapler effectively and appropriately.	• •	•						240
Practical Life	Classroom Skills	Materials and stationery	Uses tape effectively and appropriately.	• •	•						241
Practical Life	Classroom Skills	Materials and stationery	Uses glue or paste effectively and appropriately.	• •	• •						242
Practical Life	Classroom Skills	Materials and stationery	Puts a rubber band around a stack of cards.	• •	•						243
Practical Life	Classroom Skills	Materials and stationery	Refills stapler.	• •	• •						244
Practical Life	Meals and Food Preparation	Classroom snack or lunch	Sets table for informal meal/snack.	• •	•						245
Practical Life	Meals and Food Preparation	Classroom snack or lunch	Follows procedures for individual snack.	• •	•						246
Practical Life	Meals and Food Preparation	Classroom snack or lunch	Washes hands before preparing food.	• •	•						247
Practical Life	Meals and Food Preparation	Classroom snack or lunch	Follows procedures for group snack.	• •	•	Þ					248

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd 3	rd 4tł	n 5th	6th	ID #
Practical Life	Grace and Courtesy	Courtesy: General	Uses a quiet voice when appropriate.	• • •	•					249
Practical Life	Grace and Courtesy	Courtesy: General	Makes eye contact when speaking to someone.	• • •	•					250
Practical Life	Grace and Courtesy	Courtesy: General	Uses appropriate language when passing another in a doorway.	• • •	•					251
Practical Life	Grace and Courtesy	Courtesy: General	Uses appropriate language when asking for a turn.	• • •	•					252
Practical Life	Grace and Courtesy	Courtesy: General	Uses appropriate language when asking for something to be passed.	• • •	•					253
Practical Life	Grace and Courtesy	Courtesy: General	Waits for turn in various circumstances.	• • •	•					254
Practical Life	Grace and Courtesy	Courtesy: General	Makes a request using "please."	• • •	•					255
Practical Life	Grace and Courtesy	Courtesy: General	Politely refuses an offer.	• • •	•					256
Practical Life	Grace and Courtesy	Courtesy: General	Accepts "no" graciously when appropriate.	• • •	•					257
Practical Life	Grace and Courtesy	Courtesy: General	Picks something up for someone.	• • •	•					258
Practical Life	Grace and Courtesy	Courtesy: General	Asks for an item.	• • •	•					259
Practical Life	Grace and Courtesy	Courtesy: General	Asks to borrow something.	• • •	•					260
Practical Life	Grace and Courtesy	Courtesy: General	Gives way to another in a doorway.	• • •	•					261

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd 4	h	5th	6th	ID #
Practical Life	Grace and Courtesy	Courtesy: General	Holds a door to let someone pass.	• • •	•						262
Practical Life	Grace and Courtesy	Courtesy: General	Knocks on a door before entering.	• • •	•						263
Practical Life	Grace and Courtesy	Courtesy: General	Walks around a group.	• • •	•						264
Practical Life	Grace and Courtesy	Courtesy: General	Covers mouth when yawning.	• • •	•						265
Practical Life	Grace and Courtesy	Courtesy: General	Apologizes or expresses regret when appropriate.	• • •	•						266
Practical Life	Grace and Courtesy	Courtesy: General	Asks someone to pass something	• • •	•						267
Practical Life	Grace and Courtesy	Courtesy: General	Displays respect for others' workspace.	• • •	•						268
Practical Life	Grace and Courtesy	Courtesy: General	Asks for assistance when appropriate.	• • •	•						269
Practical Life	Grace and Courtesy	Courtesy: General	Writes informal notes in appropriate contexts.	• •	•						270
Practical Life	Grace and Courtesy	Courtesy: General	Displays polite assertiveness when disagreeing with another person.	• •	•						271
Practical Life	Grace and Courtesy	Courtesy: General	Expresses gratitude beyond ritual "thank you."	• •	•						272
Practical Life	Grace and Courtesy	Courtesy: General	Expresses needs clearly and assertively.	• •	•						273
Practical Life	Grace and Courtesy	Courtesy: General	Owns responsibility and expresses regret.	• •	•						274

	Monte	ssori Foundat	ion Curriculum Scop	e and Sequence: Ages 3 to 1	12
		Commonly, by the e will be able to demo	nd of the span of age or grade onstrate the following skills, kno	levels indicated below, students pwledge, and/or understanding:	
Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG 1st 2nd 3rd 4th 5th 6th	h ID#
Practical Life	Grace and Courtesy	Courtesy: General	Expresses own feelings.	• • •	275
Practical Life	Grace and Courtesy	Greeting and introductions	Shakes hands in greeting.	• • • •	276
Practical Life	Grace and Courtesy	Greeting and introductions	Judges when to use formal or informal greeting.	• • • •	277
Practical Life	Grace and Courtesy	Greeting and introductions	Welcomes a guest.	• • • •	278
Practical Life	Grace and Courtesy	Greeting and introductions	Introduces self to visitor or new child.	• • • •	279
Practical Life	Grace and Courtesy	Greeting and introductions	Introduces others.	• • • •	280
Practical Life	Grace and Courtesy	Greeting and introductions	Remembers name of newly introduced person.	• • • •	281
Practical Life	Grace and Courtesy	Greeting and introductions	Knows names of children in class.	• • • •	282
Practical Life	Grace and Courtesy	Altruism, kindness, consideration	Displays spontaneous sharing.	• • • •	283
Practical Life	Grace and Courtesy	Altruism, kindness, consideration	Encourages another child or adult.	• • • •	284
Practical Life	Grace and Courtesy	Altruism, kindness, consideration	Compliments another child or adult.	• • • •	285
Practical Life	Grace and Courtesy	Altruism, kindness, consideration	Deals with meanness or conflict assertively and politely.	• • • •	286
Practical Life	Grace and Courtesy	Altruism, kindness, consideration	Avoids hurting feelings.	• • •	287

	Montes	Commonly, by the e will be able to demo	nd of the span of age or grade instrate the following skills, kno	levels indicated	below, stud r understan	lents ding:	.0 12	•
Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st 2nd 3	Brd 4th 5th	6th	ID #
Practical Life	Grace and Courtesy	Etiquette in a group	Responds appropriately to invitation to join a group.	• • •	•			288
Practical Life	Grace and Courtesy	Etiquette in a group	Joins a group quietly without interrupting.	• • •	•			289
Practical Life	Grace and Courtesy	Etiquette in a group	Interrupts politely and when necessary.	• • •	•			290
Practical Life	Grace and Courtesy	Etiquette in a group	Asks permission to join a group.	• • •	•			291
Practical Life	Grace and Courtesy	Etiquette in a group	Sits in group.	• • •	•			292
Practical Life	Grace and Courtesy	Etiquette in a group	Asks to be excused.	• • •	•			293
Practical Life	Grace and Courtesy	Etiquette in a group	Asks to speak, or waits for turn to speak, as appropriate to context.	)	•			294
Practical Life	Grace and Courtesy	Etiquette in a group	Listens with respect while others speak.	• • •	•			295
Practical Life	Grace and Courtesy	Etiquette in a group	Replies appropriately to others in a group.	• • •	•			296
Practical Life	Grace and Courtesy	Etiquette in a group	Shares ideas and feelings as appropriate.	• • •	•			297
Practical Life	Grace and Courtesy	Etiquette in a group	Demonstrates a sensibility to individual and cultural differences.	• • •	•			298
Practical Life	Grace and Courtesy	Etiquette in a group	Stands in a queue.	• • •	•			299
Practical Life	Grace and Courtesy	Etiquette in a group	Stops to listen when bell rings/announcement made.	• • •	•			300

	Monte	essori Foundat	ion Cu <del>rr</del> iculum Scop	e and S	equ	ienc	e: A	ges	3 te	o 12	
		Commonly, by the e will be able to demo	nd of the span of age or grade l nstrate the following skills, kno	levels indication wledge, and	ated b d/or 1	elow, 1nders	studen tandin	ts g:			
Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st 2r	nd 3rd	4th	5th	6th	ID #
Practical Life	Grace and Courtesy	Etiquette in a group	Participates in conflict resolution processes.	•	•	•					301
Practical Life	Grace and Courtesy	Etiquette in a group	Makes requests.	• •	•	•					302
Practical Life	Grace and Courtesy	Etiquette in a group	Participates in discussion.	• •	•	•					303
Practical Life	Grace and Courtesy	Etiquette in a group	Questions new suggestions.	• •	•	•					304
Practical Life	Grace and Courtesy	Etiquette: Meals	Waits for everyone to be seated a mealtime.	t • •	•	•					305
Practical Life	Grace and Courtesy	Etiquette: Meals	Folds crumbs into a napkin.	• •	•	•					306
Practical Life	Grace and Courtesy	Etiquette: Meals	Cleans own place before leaving the table.	• •	•	•					307
Practical Life	Grace and Courtesy	Etiquette: Meals	Conducts pleasant conversation at table.	• •	•	•					308
Practical Life	Grace and Courtesy	Etiquette: Meals	Cleans a spill at table.	• •	•	•					309
Practical Life	Grace and Courtesy	Etiquette: Meals	Offers food to another.	• •	•	•					310
Practical Life	Grace and Courtesy	Etiquette: Meals	Politely asks for food to be passed.	• •	•	•					311
Practical Life	Grace and Courtesy	Etiquette: Meals	Politely refuses an offer of food.	• •	•	•					312
Practical Life	Grace and Courtesy	Etiquette: Meals	Asks to be excused from table.	• •	•	•					313

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Practical Life	Grace and Courtesy	Etiquette: Meals	Chews with mouth closed while eating.	• •	•	•						314
Practical Life	Grace and Courtesy	Etiquette: Meals	Serves others at mealtime.	• •	•	•						315
Practical Life	Grace and Courtesy	Etiquette: Meals	Waits for turn and helps self in buffet queue.	• •	•	•						316
Practical Life	Care of Environment	Care of playground and sports equipment	Actively participates in maintenance of outdoor play and sports areas and equipment.					•	•	•		317
Practical Life	Care of Environment	Care of playground and sports equipment	Collaborates with staff in planning and implementing protocols for playground safety.					•	•	•		318
Practical Life	Care of Environment	Care of classroom	Utilizes a variety of tools and skills to actively participate in maintenance of furnishings in classroom.	•	•	•	•	•	•	•		319
Practical Life	Care of Environment	Care of classroom	Utilizes a variety of tools and skills to finish new furniture by sanding and applying appropriate finishes.				•	•	•	•		320
Practical Life	Care of Environment	Care of classroom	Actively participates in maintaining floor surfaces by using appropriate methods.	•	•	•	•	•	•	•		321
Practical Life	Care of Environment	Care of classroom	Actively participates in using a washing machine and tumble dryer to maintain classroom items.	•	•	•	•	•	•	•		322
Practical Life	Care of Environment	Care of classroom	Actively participates in sanitizing dishes or loading and operating a dishwasher.	•	•	•	•	•	•	•		323
Practical Life	Care of Environment	Care of classroom	Utilizes a variety of tools and skills to actively participate in maintenance of the classroom materials on the shelves.	•	•	•	•	•	•	•		324
Practical Life	Care of Environment	Care of classroom	Actively participates in monitoring personal property and classroom property for neatness.	d •	•	•	•	•	•	•		325
Practical Life	Care of Environment	Care of classroom	Actively participates in maintaining community supplies.	•	•	•	•	•	•	•		326

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG 1	st 2nd	3rd	4th	5th	6th	ID #	
Practical Life	Care of Environment	Care of classroom	Actively participates in conserving the classroom materials, such as paper, water, and so on.	•	•	• •	•	•	•		327	
Practical Life	Care of Environment	Care of classroom	Uses a variety of skills to maintain classroom computers.	1	(	• •	•	•	•		328	
Practical Life	Care of Environment	Care of classroom	Actively participates in caring for domestic or non-domestic animals if appropriate.	•	•	•	•	•	•		329	
Practical Life	Care of Environment	Care of classroom	Actively participates in caring for indoor plants.	•	•	• •	•	•	•		330	
Practical Life	Care of Environment	Care of classroom	Actively participates in arranging flowers for the classroom.	•	•	•	•	•	•		331	
Practical Life	Care of Environment	Care of outdoor environment	Uses a variety of tools and skills to actively participate in caring for the outside areas of the classroom.	r	•	•	•	•	•		332	
Practical Life	Care of Environment	Care of outdoor environment	Uses a variety of tools and skills to actively participate in caring for the school campus.	r	•	•	•	•	•		333	
Practical Life	Care of Environment	Care of outdoor environment	Actively participates in the planting of a vegetable garden.	•	•	• •	•	•	•		334	
Practical Life	Care of Environment	Care of outdoor environment	Actively participates in the planting of a wildlife-friendly garden.	•	•	•	•	•	•		335	
Practical Life	Care of Environment	Care of outdoor environment	Actively participates in the maintenance of classroom gardens.	•	•	• •	•	•	•		336	
Practical Life	Care of Environment	Care of outdoor environment	Actively participates in harvesting of vegetables from classroom garden.	•	•	• •	•	•	•		337	
Practical Life	Care of Environment	Care of outdoor environment	Uses a knowledge of organic and sustainable agriculture practices to maintain gardens.			•	•	•	•		338	
Practical Life	Personal Responsibility	Safety: General safety and security	Understands the dangers of using electrical implements and handles electrical tools and implements safely - while under adult supervision.	•	•	• •	•	•	•		339	
Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age	4 KG	1st	2nd	3rd	4th	5th	6th	ID #
----------------	---	---	---	-----------	------	-----	-----	-----	-----	-----	-----	------
Practical Life	Personal Responsibility	Safety: General safety and security	Is aware of, and applies, safety protocols when using the internet as per school policy.	:			•	•	•	•		340
Practical Life	Personal Responsibility	Personal Grooming	Participates in activities that pertain to personal grooming and hygiene.	C	•	•	•	•	•	•		341
Practical Life	Personal Responsibility	Care of possessions	Actively participates in maintaining clothing through proper hanging, brushing, mending, hemming, button sewing, shoe cleaning, and polishing.	•	•	•	•	•	•	•		342
Practical Life	Personal Responsibility	Care of possessions	Uses a pattern and cloth to make items by hand or by sewing machine.	•	•	•	•	•	•	•		343
Practical Life	Personal Responsibility	Care of possessions	Is able to take care of different fabrics and understands how to remove stains.	•	•	•	•	•	•	٠		344
Practical Life	Personal Responsibility	Care of possessions	Understands that different social events have different dress expectations and is able to chose appropriate clothing for these occasions.	•	•	•	•	•	•	•		345
Practical Life	Personal Responsibility	Care of possessions	Is able to pack appropriately for a trip.		•	•	•	•	•	•		346
Practical Life	Personal Responsibility	Care of possessions	Is able to perform advanced first- aid techniques.				•	•	•	•		347
Practical Life	Personal Responsibility	Care of possessions	Manages an allowance through a budget.				•	•	•	•		348
Practical Life	Classroom Skills: Library & Media	Practical application Library skills	Catalogues new books and assigns appropriate reference number /classification.					•	•	•		349
Practical Life	Going Out	Going Out: Formal meal at Restaurant	Dines at restaurant, displaying appropriate manners and protocols: orders meal respectfully, maintains decorum in the setting.				•	•	•	•		350
Practical Life	Going Out	Going Out: Formal meal	Researches and practices culturally appropriate etiquette for formal meal setting.				•	•	•	•		351

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Practical Life	Going Out	Going Out	Plans a trip for a small group.			•	•	•	•		352
Practical Life	Going Out	Going Out	Uses a street map to find destination.			•	•	•	•		353
Practical Life	Going Out	Going Out	Uses GPS coordinates to find destination.			•	•	•	•		354
Practical Life	Going Out	Going Out	Uses GPS to find destination from address.			•	•	•	•		355
Practical Life	Going Out	Going Out	Phones to book an appointment in relation to the trip.			•	•	•	•		356
Practical Life	Going Out	Going Out	Leaves a message for person to return call.		•	•	•	•	•		357
Practical Life	Going Out	Going Out	Arranges an appropriate time and date.	l		•	•	•	•		358
Practical Life	Going Out	Going Out	Arranges transport in accordance with school's protocols.			•	•	•	•		359
Practical Life	Going Out	Going Out	Arranges for necessary indemnities from parents.			•	•	•	•		360
Practical Life	Going Out	Going Out	Makes a list of all requirements.			•	•	•	•		361
Practical Life	Going Out	Going Out	Calculates costs and arranges funds in accordance with school protocols.		•	•	•	•	•		362
Practical Life	Going Out	Going Out	Arranges a small gift for host if appropriate.		•	•	•	•	•		363
Practical Life	Going Out	Going Out	Thanks host after trip.	• •	•	•	•	•	•		364

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Practical Life	Going Out	Going Out	Advises all participants of pertinent facts, protocols, safety issues, and expected behavior during trip.				•	•	•		365
Practical Life	Going Out	Going Out	Arranges for chaperone where appropriate.				•	•	•		366
Practical Life	Going Out	Going Out	Takes part in trip planned by another person.	• •	•	•	•	•	•		367
Practical Life	Going Out	Going Out	Draws up an emergency plan in respect of trip.				•	•	•		368
Practical Life	Meals and Food Prep	Practical application: Kitchen appliances	Is able to use and maintain a variety of kitchen appliances.		•	•	•	•	•		369
Practical Life	Meals and Food Prep	Practical application: Cooking skills	Plans meals with an understanding of a balanced diet.		•	•	•	•	•		370
Practical Life	Meals and Food Prep	Practical application: Cooking skills	Plans different menus for breakfast, lunch, dinner, and special occasions and holidays.			•	•	•	•		371
Practical Life	Meals and Food Prep	Practical application: Cooking skills	Follows recipes for food preparation.		•	•	•	•	•		372
Practical Life	Meals and Food Prep	Practical application: Cooking skills	Develops a knowledge of different ingredients, such as the different varieties of flour, herbs, and seasonings.			•	•	•	•		373
Practical Life	Meals and Food Prep	Practical application: Cooking skills	Reads food labels and understands the significance of the different line items.			•	•	•	•		374
Practical Life	Meals and Food Prep	Practical application: Cooking skills	Prepares a grocery shopping list.		•	•	•	•	•		375
Practical Life	Meals and Food Prep	Practical application: Cooking skills	Measures accurately in both liquid and dry ingredients, using appropriate measuring tools.	1	•	•	•	•	•		376
Practical Life	Meals and Food Prep	Practical application: Cooking skills	Sets up appropriately for a casual snack or lunch.		•	•	•	•	•		377

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Practical Life	Meals and Food Prep	Practical application: Cooking skills	Sets up appropriately for a formatimeal.	1		•	•	•	•		378
Practical Life	Meals and Food Prep	Practical application: Cooking skills	Serves people appropriately in either a formal or informal manner.		•	•	•	•	•		379
Practical Life	Meals and Food Prep	Practical application: Cooking skills	Cleans up appropriately after food preparation and meals.		•	•	•	•	•		380
Practical Life	Meals and Food Prep	Practical application: Cooking skills	Prepares a picnic basket for self and one or two others.	• •	٠	R	R	R	R		381
Practical Life	Meals and Food Prep	Practical application: Cooking skills	Plans, budgets, and prepares picnic for groups.			•	•	•	•		382
Practical Life	Meals and Food Prep	Practical application: Cooking skills	Plans, budgets, and prepares tea party for groups.			•	•	•	•		383
Practical Life	Meals and Food Prep	Practical application: Measuring	Adapts quantities in recipes to increase or decrease number of servings in a recipe.			•	•	•	•		384
Practical Life	Social Skills	Etiquette in a group: Meetings	Demonstrates belief in democratic process.	• •	•	•	•	•	•		385
Practical Life	Social Skills	Etiquette in a group: Meetings	Initiates group discussions.	• •	•	•	•	•	•		386
Practical Life	Social Skills	Etiquette in a group: Meetings	Chairs a meeting according to method being used.		•	•	•	•	•		387
Practical Life	Social Skills	Etiquette in a group: Meetings	Follows rules of order depending on method being used.	• •	•	•	•	•	•		388
Practical Life	Social Skills	Etiquette in a group: Meetings	Records minutes of meeting/acts as scribe - informal notes.		•	•	•	•	•		389
Practical Life	Social Skills	Etiquette in a group: Meetings	Records minutes of meeting/acts as scribe - formal minutes.				•	•	•		390

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Practical Life	Social Skills	Etiquette in a group: Meetings	Acts as time-keeper for meeting.		•	•	•	•	•		391
Practical Life	Social Skills	Etiquette in a group: Meetings	Draws up a meeting agenda.			•	•	•	•		392
Practical Life	Social Skills	Etiquette in a group: Meetings	Suggests agenda items.	• •	٠	•	•	•	•		393
Practical Life	Social Skills	Etiquette in a group: Meetings	Votes on matters in meeting.	• •	•	•	•	•	•		394
Practical Life	Social Skills	Etiquette in a group: Meetings	Represents class in whole-school meetings.		٠	•	•	•	•		395
Practical Life	Social Skills	Etiquette in a group: Meetings	Raises points of order.	• •	•	•	•	•	•		396
Practical Life	Social Skills	Etiquette in a group: Meetings	Considers and suggests amendments to procedures.	• •	•	•	•	•	•		397
Practical Life	Social Skills	Etiquette in a group: Meetings	Participates in formulating classroom and school rules / guidelines and protocols.	• •	•	•	•	•	•		398
Practical Life	Social Skills	Etiquette in a group: Meetings	Addresses chair in formal meeting.	• •	•	•	•	•	•		399
Practical Life	Social Skills	Intrapersonal development	Makes responsible choices in varied contexts.	• •	•	•	•	•	•		400
Practical Life	Social Skills	Intrapersonal development	Accepts responsibility for own behavior.	• •	٠	•	•	•	•		401
Practical Life	Social Skills	Intrapersonal development	Explains role of planning in solving problems.	• •	•	•	•	•	•		402
Practical Life	Social Skills	Intrapersonal development	Facilitates conflict-resolution processes.		•	•	•	•	•		403

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Practical Life	Social Skills	Intrapersonal development	Participates as an audience member with respect and courtesy.	•	•	•	•	•	•	•		404
Practical Life	Social Skills	Intrapersonal development	Actively participates in upholding the classroom contract and encouraging others to do so.	•	•	•	•	•	•	•		405
Practical Life	Social Skills	Intrapersonal development	Actively participates in own work plan and develops according to teacher guidance and own self- interests.	•	•	•	•	•	•	•		406
Practical Life	Social Skills	Intrapersonal development	Prioritizes time wisely to meet own and others' needs.	•	•	•	•	•	•	•		407
Practical Life	Social Skills	Intrapersonal development	Displays self-reliance when working independently.	•	•	•	•	•	•	•		408
Practical Life	Social Skills	Intrapersonal development	Follows through on commitments towards both work and others.	•	•	•	•	•	•	•		409
Practical Life	Social Skills	Intrapersonal development	Shows satisfaction in meaningful work.	•	•	•	•	•	•	•		410
Practical Life	Social Skills	Intrapersonal development	Respectfully justifies choices made in various contexts.	•	•	•	•	•	•	•		411
Practical Life	Social Skills	Intrapersonal development	Uses an objective approach towards problem solving.	•	•	•	•	•	•	•		412
Practical Life	Social Skills	Intrapersonal development	Actively participates as a positive team player in small- or large- group settings.	•	•	•	•	•	•	•		413
Practical Life	Social Skills	Intrapersonal development	Displays a commitment to ethical behavior.	•	•	•	•	•	•	•		414
Practical Life	Social Skills	Intrapersonal development	Positively influences others behavior.			•	•	•	•	•		415
Practical Life	Social Skills	Intrapersonal development	Is able to reserve judgment about others no matter the circumstance.			•	•	•	•	•		416

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 H	KG 1	st 2n	l 3rd	4th	5th	6th	ID #
Practical Life	Social Skills	Intrapersonal development	Is able to change mind in light of new information.		•		•	•	•		417
Practical Life	Time Management	Development of organizational skills	Is able to work within expected guidelines and does so appropriately.	•	• •		•	•	•		418
Practical Life	Time Management	Development of organizational skills	Is able to follow through on directions given one on one.	•	•		•	•	•		419
Practical Life	Time Management	Development of organizational skills	Is able to follow through on directions given in a group.		•		•	•	•		420
Practical Life	Time Management	Development of organizational skills	Is able to work on a short-term project and successfully complete the task, either individually or in a group.	•	• •	•	•	•	•		421
Practical Life	Time Management	Development of organizational skills	Is able to work on a long-term project and successful complete the task, either individually or in a group.				•	•	•		422
Practical Life	Time Management	Development of organizational skills	Is able to design a project, develop outcomes, and follow through appropriately.				•	•	•		423
Practical Life	Time Management	Development of organizational skills	Is able to work independently and plan entire week without any teacher direction.	l			•	•	•		424
Practical Life	Time Management	Development of organizational skills	Is able to work successfully and independently after meeting with teacher and having been given the exit outcomes for all subjects for the semester.	;			•	•	•		425
Practical Life	How to Run a Business	Development of business acumen	Participates in the development of a business strategy to establish a small business.			•	•	•	•		426
Practical Life	How to Run a Business	Development of business acumen	Participates in the decision- making process regarding how profits might be used.			•	•	•	•		427
Practical Life	How to Run a Business	Development of business acumen	Participates in the development of a budget for a small business.			•	•	•	•		428
Practical Life	How to Run a Business	Development of business acumen	Participates in purchasing or developing products for a small business.			•	•	•	•		429

	Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12													
Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:														
Area	Strand	Lesson/Material	Curriculum Element	Age 3	3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #	
Practical Life	How to Run a Business	Development of business acumen	Participates in the day-to-day operations of the business.					•	•	•	•		430	
Practical Life	How to Run a Business	Development of business acumen	Participates in the reconciliation of account for the business.					•	•	•	•		431	



# Curriculum Scope & Sequence The Sensorial Curriculum

A child interacts with the physical world through her senses. From birth, she will look, listen, touch, taste, pick up, manipulate, and smell almost anything that comes into her grasp. At first, everything goes into the mouth. Gradually, she begins to explore each object's weight, texture, and temperature. She may watch something that catches her attention, such as a butterfly, with infinite patience.

The Sensorial curriculum is designed to help children focus their attention more carefully on the physical world, exploring with each of their senses the subtle variations in the properties of objects. At first, children may simply be asked to sort among a prepared series of objects that vary by only one aspect, such as height, length, or width. Other exercises challenge them to find identical pairs or focus on very different physical properties, such as aroma, taste, weight, shades of color, temperature, or sound. These exercises are essentially puzzles, and they tend to fascinate children, because they are just difficult enough to represent a meaningful challenge. Each has a built-in control of error that allows children who are observant to check their own work. The Sensorial exercises include lessons in vocabulary, as the children master the names of everything from sophisticated plane and solid geometric figures to the parts of familiar plants and animals. As the Inuit people of the Arctic demonstrate to us with their many different words for snow, we observe that, as the children learn the correct names for things, the objects themselves take on meaning and reality as the children learn to recognize and name them.



Why is it so important to educate the young child's senses? We certainly don't believe that we can improve a child's hearing or sight through training. However, we can help children to pay attention, to focus their awareness, and to learn how to observe and consider what comes into their experience. In a way, the Sensorial curriculum accomplishes something like a course in wine tasting or music appreciation; one learns to taste, smell, or hear what is experienced with a much deeper awareness and appreciation. These exercises can help children understand and appreciate their world more fully.

> Understanding the Scope and Sequence Code ...

The Montessori Foundation • 19600 E SR 64 • Bradenton, FL 34212 941-729-9565 • www.montessori.org

#### How to Read the Code of Dots and Letters Used in the Scope and Sequence:

Sensorial Curriculum . 2

Montessori does not organize curriculum by the grade level at which topics are to be taught. We assume that children learn at different paces and learn best in different ways. In most cases, students in Montessori programs will work on any given skill or concept over several years. We introduce students to new lessons as soon as they seem to be ready. Likewise, we have a plan of what Montessori students ought to learn and the age/grade levels at which which we expect mastery from most students.

Instead of arranging our curriculum by grade level, we organize it by the subsets of concepts and skills (Strands) and the sequence in which they will be taught. In our Curriculum Scope and Sequence, to the right of the list of curriculum elements, we use a series of vertical columns to represent a given span of ages or grades. We use large dots to indicate the age or grade levels at which we anticipate a given lesson will be presented. Since we do not follow a grade-by-grade curriculum, the age or grade when a child will actually be ready to begin work depends on his or her developmental readiness. Our Dot Code is simply a guideline for Montessori educators.

When viewed in color on a computer, the dots follow a pattern of green, blue, and red, which is repeated at each Montessori three-year program cycle. The color coding makes it somewhat easier to see at which age/grade levels we anticipate children will work on concepts or skills. Normally, students return to work many times over two years or longer before they truly understand what they have studied and retain it over time.

	Montes	sori Foundat	ion Curriculum Scop	e a	nd S	eq	uet	ice	A	ges	3 t	o 12	2
	C	commonly, by the e vill be able to demo	nd of the span of age or grade lonstrate the following skills, know	evels wled	indica ge, and	ted   d/or	belo und	w, st ersta	uden ndin	its g:			
Area	Strand	Lesson/Material	Curriculum Element	Age	3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Golden Bead Materials	Demonstrates an understanding of the concept of change between hierarchies, using additive quantities with Golden Bead Materials.		•	•	R						25
Mathematics	Decimal System: Introduction to Place Value: 2	Constructing Quantities with the Golden Beads and Number Cards	Constructs, identifies, and names the quantity (naming correctly from left to right), up to 9,999, represented by an assembly of Golden Beads.		•	•	R						26

As you can see by the example above, we expect that the two Math skills shown (items number 25 and 26) will normally be introduced at age four, and we anticipate that children will continue to work on them over the following year. The "R" shown in the 1st-grade column indicates that we suggest that the teachers ought to review and re-test to see if the child still understands the concept or skill. In some case the symbol "I" is used to indicate that a child should be given a first introduction to a concept or skill at a given age/grade level. Students often work on some concepts and skills over the course of several years.

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Sensorial	Discrimination of Size 1	Cylinder Blocks	Works with materials as presented, placing cylinders in correct sockets using visual and stereognostic sense: Block 1.	• • •							1
Sensorial	Discrimination of Size 1	Cylinder Blocks	Places cylinders in correct sockets using visual and stereognostic sense: Block 2.	• • •							2
Sensorial	Discrimination of Size 1	Cylinder Blocks	Works with materials as presented, placing cylinders in correct sockets using visual and stereognostic sense: Block 3.	• • •							3
Sensorial	Discrimination of Size 1	Cylinder Blocks	Works with materials as presented, placing cylinders in correct sockets using visual and stereognostic sense: Block 4.	• • •							4
Sensorial	Discrimination of Size 1	Cylinder Blocks	Works with any two blocks together, placing cylinders in correct sockets using visual and stereognostic sense.	• • •							5
Sensorial	Discrimination of Size 1	Cylinder Blocks	Works with any three blocks together, placing cylinders in correct sockets using visual and stereognostic sense.	• • •							6
Sensorial	Discrimination of Size 1	Cylinder Blocks	Works with all four blocks together, placing cylinders in correct sockets using visual and stereognostic sense.	• • •							7
Sensorial	Discrimination of Size 1	Cylinder Blocks	Combines and uses material in novel ways.	• •							8
Sensorial	Discrimination of Size 2	Pink Tower	Works with materials as presented, placing cubes in relation to one another to demonstrate visual discrimination of size in three dimensions.	• • •							9
Sensorial	Discrimination of Size 2	Pink Tower	Uses smallest cube to indicate unit of difference.	• • •							10
Sensorial	Discrimination of Size 2	Pink Tower	Combines and uses material in novel ways.	• • •							11
Sensorial	Discrimination of Size 2	Pink Tower: Language	Identifies and describes cubes according to size.	• • •							12
Sensorial	Discrimination of Size 2	Pink Tower: Language	Uses language to describe size in context.	• • •							13

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st 2nd	3rd	4th	5th	6th	ID #
Sensorial	Discrimination of Size 3	Brown Stair	Works with materials as presented, placing prisms in relation to one another to demonstrate visual discrimination of width.	•••						14
Sensorial	Discrimination of Size 3	Brown Stair	Uses narrowest prism to indicate unit of difference.	• • •						15
Sensorial	Discrimination of Size 3	Brown Stair	Combines and uses material in novel ways.	• • •						16
Sensorial	Discrimination of Size 3	Brown Stair: Language	Identifies and describes prisms according to width.	• • •						17
Sensorial	Discrimination of Size 3	Brown Stair: Language	Uses language to describe width context.	• • •						18
Sensorial	Discrimination of Size 4	Pink Tower and Brown Stair	Combines and uses material in novel ways.	• • •						19
Sensorial	Discrimination of Size 5	Red Rods	Works with materials as presented, placing prisms in relation to one another to demonstrate visual discrimination of length.	• • •						20
Sensorial	Discrimination of Size 5	Red Rods	Uses shortest rod to indicate unit of difference.	• • •						21
Sensorial	Discrimination of Size 5	Red Rods	Combines and uses material in novel ways.	• • •						22
Sensorial	Discrimination of Size 5	Red Rods: Language	Identifies and describes rods according to length.	• • •						23
Sensorial	Discrimination of Size 5	Red Rods: Language	Uses language to describe length in context.	• • •						24
Sensorial	Discrimination of Size 6	Knobless Cylinders	Works with materials as presented, one set at a time, ordering sets of cylinders based on ability to discriminate size in three dimensions: yellow set.	• • •	•					25

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Sensorial	Discrimination of Size 6	Knobless Cylinders	Works with materials as presented, one set at a time, ordering sets of cylinders based on ability to discriminate size in three dimensions: red set.	•••	•						26
Sensorial	Discrimination of Size 6	Knobless Cylinders	Works with materials as presented, one set at a time, ordering sets of cylinders based on ability to discriminate size in three dimensions: blue set.	• • •	•						27
Sensorial	Discrimination of Size 6	Knobless Cylinders	Works with materials as presented, one set at a time, ordering sets of cylinders based on ability to discriminate size in three dimensions: green set.	• • •	•						28
Sensorial	Discrimination of Size 6	Knobless Cylinders	Combines any two sets of cylinders demonstrating an ability to relate the sets to one another.	7 • • •	•						29
Sensorial	Discrimination of Size 6	Knobless Cylinders	Combines any three sets of cylinders demonstrating an ability to relate the sets to one another.	7 <b>• •</b> •	•						30
Sensorial	Discrimination of Size 6	Knobless Cylinders	Combines four sets of cylinders demonstrating an ability to relate the sets to one another.	• • •	•						31
Sensorial	Discrimination of Size 6	Knobless Cylinders	Combines and uses material in novel ways.	• •	•						32
Sensorial	Discrimination of Size 6	Language of size consolidation	Uses language of size, length, and width correctly in a variety of contexts.	• •	•						33
Sensorial	Color 1	Color Box 1	Works with materials as presented, to pair red, yellow, and blue tablets.	1 • •							34
Sensorial	Color 1	Color Box 1: Language	Identifies and describes colors in Color Box 1.	• • •							35
Sensorial	Color 2	Color Box 2	Works with materials as presented, to match primary, secondary, black, white, gray, pink, and brown color tablets to one another.	•••							36
Sensorial	Color 2	Color Box 2: Language	Identifies and describes colors in Color Box 2.	• • •	•						37

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st 2	2nd 3	3rd 4	th 5	ōth	6th	ID #
Sensorial	Color 2	Color Box of 32 Pairs	Works with materials as presented, to match various shades of eight colors.	• •	•						38
Sensorial	Color 3	Color Box 3	Grades tints and tones of various shades, as presented, one color at a time.	• •	•						39
Sensorial	Color 3	Color Box 3	Grades tints and tones of various shades, as presented, multiple or all colors together.	• •	•						40
Sensorial	Color 3	Color Box 3	Uses art materials (pencils, paints) to recreate grades of color (e.g., with design insets).	• •	•						41
Sensorial	Color 3	Color Box 3	Uses materials to mix tints, tones, and secondary colors.	• •	•						42
Sensorial	Color 3	Color Box 3	Combines and uses material in novel ways.	• •	•						43
Sensorial	Color 3	Color Box 3: Language	Identifies and describes grades of light or dark.	• •	•						44
Sensorial	Color 3	Color Box 3: Language	Uses extended language of color in relation to tablets in Color Box 3.	• •	•						45
Sensorial	Color 3	Color Box 3: Language	Uses language to describe color in context.	• •	•						46
Sensorial	Weight 1	Baric Tablets	Works with materials as presented, to match tablets of the same weight.	• •	•						47
Sensorial	Weight 1	Baric Tablets	Works with materials, as presented, to grade tablets of the same weight.	• •	•						48
Sensorial	Weight 1	Baric Tablets	Combines and uses material in novel ways.	• •	•						49
Sensorial	Weight 1	Baric Tablets	Identifies and describes grades of weight.	• •	•						50

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Sensorial	Weight 1	Baric Tablets	Uses language to describe weight in context.	•	•	•						51
Sensorial	Temperature 1	Thermic Tablets	Works with materials as presented to pair tablets made of different materials according to thermic qualities.	• •	•							52
Sensorial	Temperature 1	Thermic Tablets	Identifies and describes thermic qualities of the different materials	•	•	•						53
Sensorial	Temperature 2	Thermic Bottles	Refines thermic sense by pairing bottles of the same temperature.	•	•	•						54
Sensorial	Temperature 2	Thermic Bottles	Grades bottles according to temperature.	•	•	•						55
Sensorial	Temperature 2	Thermic Bottles	Combines and uses material in novel ways.	•	•	•						56
Sensorial	Temperature 2	Thermic Bottles	Identifies and describes grades of temperature.	•	•	•						57
Sensorial	Temperature 2	Thermic Bottles	Uses language to describe temperature in context.	•	•	•						58
Sensorial	Taste	Taste Bottles	Works with materials as presented to pair bottles of liquid according to taste.	•	•	•						59
Sensorial	Taste	Taste Bottles	Combines and uses material in novel ways.	•	•	•						60
Sensorial	Taste	Taste Bottles	Identifies and describes tastes.	• •	•							61
Sensorial	Taste	Taste Bottles	Uses language to describe tastes in context.	•	•	•						62
Sensorial	Shape 1	Images	Pairs identical images.	• •	•							63

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG 1st 2nd 3rd 4	th 5th 6th	ID #
Sensorial	Shape 2	Geometric Solids	Explores features of Geometric Solid forms using visual and stereognostic senses.	• • •		64
Sensorial	Shape 2	Geometric Solids	Categorizes Geometric Solids into various sets according to common shapes of their faces.	• • •		65
Sensorial	Shape 2	Geometric Solids & Bases	Matches Geometric Solid forms to plane bases.	• • •		66
Sensorial	Shape 2	Geometric Solids & Bases	Combines and uses material in novel ways.	• • •		67
Sensorial	Shape 2	Geometric Solids: Language	Identifies and names Geometric Solid forms.	• • •		68
Sensorial	Shape 2	Geometric Solids: Language	Uses correct vocabulary to name and describe geometric forms in context.	• • •		69
Sensorial	Shape 3	Geometric Cabinet: Presentation Tray	Explores triangle, circle, and square through visual and stereognostic senses.	• • •		70
Sensorial	Shape 3	Geometric Cabinet: Presentation Tray & Cards	Matches geometric figures to solid plane figures.	• • •		71
Sensorial	Shape 3	Geometric Cabinet: Presentation Tray & Cards	Matches geometric figures to thick-line figures.	• • •		72
Sensorial	Shape 3	Geometric Cabinet: Presentation Tray & Cards	Matches geometric figures to thin-line figures on cards.	• • •		73
Sensorial	Shape 4	Geometric Cabinet: Individual Drawers	Explores circles through through visual and stereognostic senses.	• • •		74
Sensorial	Shape 4	Geometric Cabinet: Individual Drawers	Explores triangles through visual and stereognostic senses.	• • •		75
Sensorial	Shape 4	Geometric Cabinet: Individual Drawers	Explores quadrilaterals through visual and stereognostic senses.	• • •		76

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Sensorial	Shape 4	Geometric Cabinet: Individual Drawers	Explores rectangles through visual and stereognostic senses.	• •	•							77
Sensorial	Shape 4	Geometric Cabinet: Individual Drawers	Explores regular polygons through visual and stereognostic senses.	• •	•							78
Sensorial	Shape 4	Geometric Cabinet: Individual Drawers	Explores curvilinear figures through visual and stereognostic senses.	• •	•							79
Sensorial	Shape 4	Geometric Cabinet: Individual Drawerss & Card Sets	Works independently with individual drawers and card sets to demonstrate ability to match plane figures to each level of card	••	•							80
Sensorial	Shape 5	Geometric Cabinet: All Drawers	Works with multiple drawers to refine visual and stereognositc discrimination of plane figures.	•	•	•						81
Sensorial	Shape 5	Geometric Cabinet: All Drawers	Works independently with multiple drawers and card sets to demonstrate ability to match plane figures to each level of card	•	•	•						82
Sensorial	Shape 5	Geometric Cabinet: All Drawers	Matches and sorts geometric figures and cards to form large matrixes classified by shape and type (solid, thick, or thin lines).	•	•	•						83
Sensorial	Shape 5	Geometric Cabinet: All Drawers	Combines and uses material in novel ways.	•	•	•						84
Sensorial	Shape 5	Geometric Cabinet: All Drawers	Classifies shapes according to various categories as represented on Geometric Control Sheet.	•	•	•						85
Sensorial	Shape 6	Geometric Cabinet: Language	Identifies and names geometric plane figures: Presentation Tray.	• •	•							86
Sensorial	Shape 6	Geometric Cabinet: Language	Identifies and names geometric plane figures: Regular Polygons.	• •	•							87
Sensorial	Shape 6	Geometric Cabinet: Language	Identifies and names geometric plane figures: Quadrilaterals.	• •	•							88
Sensorial	Shape 6	Geometric Cabinet: Language	Identifies and names geometric plane figures: Rectangles (including square).	• •	•							89

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Sensorial	Shape 6	Geometric Cabinet: Language	Identifies and names geometric plane figures: Types of Triangles.	• • •							90
Sensorial	Shape 6	Geometric Cabinet: Language	Identifies and names geometric plane figures: Curvilinear Forms.	• • •							91
Sensorial	Shape 6	Geometric Cabinet: Language	Uses correct vocabulary to name and describe geometric plane figures in context.	• • •	•						92
Sensorial	Shape 7	Pattern	Copies repeating patterns - linear.	• •							93
Sensorial	Shape 7	Pattern	Constructs own repeating patterns - linear.	• •	•						94
Sensorial	Shape 7	Pattern	Copies repeating patterns - two- dimensional array.	• •	•						95
Sensorial	Shape 7	Pattern	Constructs own repeating patterns - two- dimensional array.	• •	•						96
Sensorial	Shape 7	Pattern	Copies tessellating patterns.	• •	•						97
Sensorial	Shape 7	Pattern	Constructs own tessellating patterns.	• •	•						98
Sensorial	Shape 7	Pattern	Combines and uses material in novel ways.	• •	•						99
Sensorial	Shape 8	Constructive Triangles: Triangular Box	Explores how equilateral triangles can be constructed from other triangles.	S • •	•						100
Sensorial	Shape 8	Constructive Triangles: Small Hexagonal Box	Explores how various triangles that form a hexagon can be combined to form other plane figures.	• •	•						101
Sensorial	Shape 8	Constructive Triangles: Large Hexagonal Box	Explores how a hexagon is made up from a combination of obtuse triangles and how these are combined to make different plane figures.	••	•						102

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd 4	th	5th	6th	ID #
Sensorial	Shape 8	Constructive Triangles: Rectangular box	Explores how various triangles combine to make other plane figures.	• •	•						103
Sensorial	Shape 8	Constructive Triangles: Blue Triangles	Freely explores how various triangles combine to make other plane figures.	• •	•						104
Sensorial	Shape 8	Constructive Triangles: All Sets	Combines and uses material in novel ways.	• •	•						105
Sensorial	Shape 8	Constructive Triangles	Explores congruency, equivalency, and similarity.	• •	•						106
Sensorial	Shape 8	Constructive Triangles	Constructs various stars and polygrams.	• •	•						107
Sensorial	Shape 9	Circles, Squares, and Triangles	Explores various permutations of superimposed plane figures.	• •	•						108
Sensorial	Shape 9	Inscribed and Concentric Figures	Combines and uses material in novel ways.	• •	•						109
Sensorial	Form & color	Binomial Cube	Constructs Binomial Cube as presented.	• • •	•						110
Sensorial	Form & color	Binomial Cube	Classifies prisms of Binomial Cube, laying prisms to represent the binomial equation.	• •	•						111
Sensorial	Form & color	Trinomial Cube	Classifies prisms of Trinomial Cube, laying prisms to represent the trinomial equation.	• •	•						112
Sensorial	Form & color	Trinomial Cube	Retells the story of <i>The Kings</i> to another child using the Binomial or Trinomial Cube.	• •	•						113
Sensorial	Smell	Smelling Bottles	Works with materials as presented to pair bottles according to aroma.	• •	•						114
Sensorial	Smell	Smelling Bottles	Combines and uses material in novel ways.	• •	•						115

	Monte	ssori Foundat	ion Curriculum Scop	e and s	Seqı	ieno	ce: A	ges	3 t	o 12	;
		Commonly, by the e will be able to demo	end of the span of age or grade l onstrate the following skills, kno	levels indic wledge, ar	cated b nd/or	oelow, under	stude standi	nts ng:			
Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age	4 KG	1st 2	nd 3rd	d 4th	5th	6th	ID #
Sensorial	Smell	Smelling Bottles	Identifies aromas.	• •	•						116
Sensorial	Smell	Smelling Bottles	Names aromas.	• •	•	•					117
Sensorial	Smell	Smelling Bottles	Uses language to describe aroma in context.	• •	•	•					118
Sensorial	Stereognostic	Mystery Bag: Familiar Objects	Works with materials as presented, matching objects using stereognostic sense.	g • •	•	•					119
Sensorial	Stereognostic	Stereognostic Exercises: Large Objects	Sorts objects, such as large buttons or beans, according to size using stereognostic sense.	• •	•	•					120
Sensorial	Stereognostic	Stereognostic Exercises: Small Objects	Sorts objects, such as small buttons or other Sensorial material according to size using with eyes shut or blindfolded (stereognostic sense).	• •	•	•					121
Sensorial	Stereognostic	Stereognostic Exercise : All	Combines and uses material in novel ways.	• •	٠	•					122
Sensorial	Tactile 1	Touch Boards: Board A	Works with materials as presented, to experience rough and smooth textures.	• •	•	•					123
Sensorial	Tactile 1	Touch Boards: Boards A & B	Works with materials as presented, to distinguish rough and smooth textures.	• •	•	•					124
Sensorial	Tactile 1	Touch Boards: Board C	Works with materials as presented, to distinguish gradations of rough textures.	• •	•	•					125
Sensorial	Tactile 1	Smooth Gradation Board	Works with materials as presented, to distinguish gradations of smooth textures.	• •	•	•					126
Sensorial	Tactile 1	Rough Gradation Tablets	Works with materials as presented to match various rough textures.	n 🌒 🌒	•	•					127
Sensorial	Tactile 1	Smooth Gradation Tablets	Works with materials as presented to match various smooth textures.	• •	•	•					128

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Sensorial	Tactile 1	Rough Tablets	Works with materials as presented to grade rough textures.	• •	•						129
Sensorial	Tactile 1	Smooth Tablets	Works with materials as presented to grade smooth textures.	• •	•						130
Sensorial	Tactile 1	Texture Materials: All	Combines and uses material in novel ways.	• •	•						131
Sensorial	Tactile 1	Texture: Language	Identifies and names grades of roughness.	• • •	•						132
Sensorial	Tactile 1	Texture: Language	Identifies and names grades of smoothness.	• • •	•						133
Sensorial	Tactile 1	Texture: Language	Uses language to describe texture in context.	• • •	•						134
Sensorial	Tactile 2	Fabric Box	Works with materials as presented, to pair different types of fabric according to textures.	• • •	•						135
Sensorial	Tactile 2	Fabric Box: Language	Names types of fabric.	• • •	•						136
Sensorial	Tactile 2	Fabric Box: Language	Uses language to name various fabrics.	• • •	•						137
Sensorial	Tactile 2	Fabric Box: Language	Uses language to name and describe fabrics in context.	• •	•						138
Sensorial	Sound 1	Sound Cylinders: Volume	Pairs cylinders according to sound.	• • •	•						139
Sensorial	Sound 1	Sound Cylinders: Volume	Grades one set of cylinders according to sound.	• •	•						140
Sensorial	Sound 1	Sound Cylinders: Volume	Combines and uses material in novel ways.	• •	•						141

Area	Strand	Lesson/Material	Cu <del>rr</del> iculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Sensorial	Sound 1	Sound Cylinders: Language	Identifies and describes grades of volume of sound.	• •	•						142
Sensorial	Sound 1	Sound Cylinders: Language	Uses correct vocabulary to describe the volume of sounds in context.	• •	•						143
Sensorial	Sound 2	Bells: Pitch	Handles bells carefully and appropriately.	• •	•						144
Sensorial	Sound 2	Bells: Pitch	Pairs corresponding bells.	• •	•						145
Sensorial	Sound 2	Bells: Pitch	Grades bells according to C- Major Scale.	• •	•						146
Sensorial	Sound 2	Bells: Pitch	Pairs corresponding bells.	• •	•						147
Sensorial	Sound 2	Bells: Pitch	Grades full set of bells.	• •	•						148
Sensorial	Sound 2	Bells: Pitch	Sings notes played on the Montessori Bells - either in a single-syllable, tonic sol-fa or naming notes.	• •	•						149
Sensorial	Sound 2	Bells: Pitch	Composes own melody on bells.	• •	•						150
Sensorial	Sound 2	Bells: Pitch	Copies a random series of notes played by another.	• •	•						151
Sensorial	Sound 2	Bells: Pitch	Combines and uses material in novel ways.	• •	•						152
Sensorial	Sound 2	Bells: Pitch	Identifies and names grades of pitch.	• •	•						153
Sensorial	Sound 2	Bells: Pitch	Identifies and names notes on C- Major Scale.	• •	•						154

	Mon	tesso <del>r</del> i Founda	tion Cu <del>rr</del> iculum Scop	be and	l Seq	ue	nce	: Aş	ges	3 t	o 12	2
		Commonly, by the will be able to dem	end of the span of age or grade onstrate the following skills, kno	levels in owledge,	licated and/or	belo und	w, st lersta	uden ndin	ts g:			
Area	Strand	Lesson/Material	Curriculum Element	Age 3 A	ge 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Sensorial	Sound 2	Montessori Bells: Pitch	Identifies and names the notes sounded by the Montessori Bells (tonic sol-fa scale).		• •	•						155



## Curriculum Scope & Sequence The Language Arts Curriculum

The process of learning how to read should be as painless and simple as learning how to speak. Montessori begins by placing the youngest students in classes where the older students are already reading. All children want is to "do what the big kids can do," and as the intriguing work that absorbs the older students involves reading, there is a natural lure for the young child.

Beginning at age two or three, Montessori children are introduced to a few letters at a time until they have mastered the entire alphabet. They trace each letter as it would be written, using two fingers of their dominant hand. As they trace the letter's shape, they receive three distinct impressions: they see the shape of the letter, they feel its shape and how it is written, and they hear the teacher pronounce its sound.

Children move from the Sandpaper Letters to tracing them in fine sand. The teacher and child will begin to identify words that begin with the kuh sound: cat, candle, can, and cap. Seeing the tablets for the letters c, a, and t laid out before her, a child will pronounce each in turn — *kub*, *aab*, *tub*: *cat*!

To help children develop the eye-hand coordination needed to correctly grasp and write with a pencil, Montessori introduced them to a set of metal frames and insets made in the form of geometric shapes. When the geometric inset is removed, the children trace the figure left within the frame onto a sheet of paper. Then they use colored pencils to shade in the outlines that they've traced, using careful horizontal strokes. Gradually, children become more



skilled at keeping the strokes even and staying within the lines.

During the Elementary years, Montessori focuses on the development of strong writing skills and library research. The curriculum does not depend on textbooks, as much as on primary and secondary resource materials found in classroom library collections, media centers, public libraries, and on the Internet. They begin a systematic study of the English language: vocabulary, spelling rules, and linguistics. Montessori schools commonly teach Elementary and Middle School students how to use the computer to write, illustrate, and lay out their work.

> Understanding the Scope and Sequence Code ...

The Montessori Foundation • 19600 E SR 64 • Bradenton, FL 34212 941-729-9565 • www.montessori.org



#### How to Read the Code of Dots and Letters Used in the Scope and Sequence:

Montessori does not organize curriculum by the grade level at which topics are to be taught. We assume that children learn at different paces and learn best in different ways. In most cases, students in Montessori programs will work on any given skill or concept over several years. We introduce students to new lessons as soon as they seem to be ready. Likewise, we have a plan of what Montessori students ought to learn and the age/grade levels at which which we expect mastery from most students.

Instead of arranging our curriculum by grade level, we organize it by the subsets of concepts and skills (Strands) and the sequence in which they will be taught. In our Curriculum Scope and Sequence, to the right of the list of curriculum elements, we use a series of vertical columns to represent a given span of ages or grades. We use large dots to indicate the age or grade levels at which we anticipate a given lesson will be presented. Since we do not follow a grade-by-grade curriculum, the age or grade when a child will actually be ready to begin work depends on his or her developmental readiness. Our Dot Code is simply a guideline for Montessori educators.

When viewed in color on a computer, the dots follow a pattern of green, blue, and red, which is repeated at each Montessori three-year program cycle. The color coding makes it somewhat easier to see at which age/grade levels we anticipate children will work on concepts or skills. Normally, students return to work many times over two years or longer before they truly understand what they have studied and retain it over time.

	Montes	so <del>r</del> i Foundat	ion Curriculum Scop	e a	nd S	eq	uet	ice	: A	ges	3 t	o 12	2
	C V	Commonly, by the e vill be able to demo	end of the span of age or grade lonstrate the following skills, kno	evel wlec	s indica lge, and	ited l/or	belo und	w, sti lersta	uden ndin	ts g:			
Area	Strand	Lesson/Material	Curriculum Element	Age	3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Golden Bead Materials	Demonstrates an understanding of the concept of change between hierarchies, using additive quantities with Golden Bead Materials.		•	•	R						25
Mathematics	Decimal System: Introduction to Place Value: 2	Constructing Quantities with the Golden Beads and Number Cards	Constructs, identifies, and names the quantity (naming correctly from left to right), up to 9,999, represented by an assembly of Golden Beads.		•	•	R						26

As you can see by the example above, we expect that the two Math skills shown (items number 25 and 26) will normally be introduced at age four, and we anticipate that children will continue to work on them over the following year. The "R" shown in the 1st-grade column indicates that we suggest that the teachers ought to review and re-test to see if the child still understands the concept or skill. In some case the symbol "I" is used to indicate that a child should be given a first introduction to a concept or skill at a given age/grade level. Students often work on some concepts and skills over the course of several years.

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 I	KG 1st	2nd	3rd 4	4th 5th	6th	ID #
Language Arts	Language Enrichment: Vocabulary Development	Objects or images	Expands vocabulary through three-period lessons given by adult or through conversation with other children.	• •	• •					1
Language Arts	Language Enrichment: Vocabulary Development	Classified pictures	Views and discusses cards with adult or another child.	• •	••					2
Language Arts	Language Enrichment: Vocabulary Development	Classified pictures	Learns the names of the items depicted by the images by means of a three-period lesson.	• •	••					3
Language Arts	Language Enrichment: Vocabulary Development	Classified pictures	Sorts image cards underneath corresponding scene images.	• •	••					4
Language Arts	Language Enrichment: Speech	Questioning	Engages in verbal question-and- answer games of increasing complexity.	••	••					5
Language Arts	Language Enrichment: Speech	News	Shares observations, news, and ideas with the group or individually.	• •	••					6
Language Arts	Language Enrichment: Speech	Rhymes and songs	Participates in singing rhymes and song.	d • •	••					7
Language Arts	Language Enrichment: Speech	Storytelling	Tells short stories in group time.	•	••					8
Language Arts	Language Enrichment: Speech	Word and sound games	Participates in word and sound games (rhymes, word play, riddles, etc.).	•	••					9
Language Arts	Phonemic Awareness	I Spy Game: Objects in environment	Isolates sounds in words, demonstrating an ability to isolate the initial sound (40/44 key sounds): one object in hand.	e • •	• R					10
Language Arts	Phonemic Awareness	I Spy Game: Objects in environment	Isolates sounds in words, demonstrating an ability to isolate the initial sound (40/44 key sounds): more than one sound, limited space.	e 🌒 🌒	• R					11
Language Arts	Phonemic Awareness	I Spy Game: Objects in environment	Isolates sounds in words, demonstrating an ability to isolate the initial sound (40/44 key sounds): larger unlimited area.	e 🌒	• R					12
Language Arts	Phonemic Awareness	I Spy Game: Objects in environment	Isolates sounds in words, demonstrating an ability to isolate the initial sound (40/44 key sounds): entire visible area.	e •	• R					13

Area	Strand	Lesson/Material	Cu <del>rr</del> iculum Element	Age 3	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Language Arts	Phonemic Awareness	I Spy Game: Objects in environment	Isolates sounds in words, demonstrating an ability to isolate the initial and ending sounds (40/44 key sounds): limited area.	2	•	•	R						14
Language Arts	Phonemic Awareness	I Spy Game: Objects in environment	Isolates sounds in words, demonstrating an ability to isolate the internal sounds in words (40/44 key sounds): in entire visible area.		•	•	R						15
Language Arts	Phonemic Awareness	I Spy Game: Objects in environment	Isolates sounds in words, demonstrating an ability to isolate any sound (40/44 key sounds): entire visible area.	;	•	•	•	R					16
Language Arts	Handwriting: Preparation 1	Sensorial Materials	Has developed fine-motor control in preparation for handwriting through the various Sensorial preliminary exercises.	•	•	•	R						17
Language Arts	Handwriting: Preparation 1	Sandpaper Letters: Key Sounds	Feels Sandpaper Letters using a light, continuous movement of the index and middle fingers of the dominant hand.	•	•	•							18
Language Arts	Handwriting: Preparation 1	Sandpaper Letters: Key Sounds	Associates the letter sound with the symbol, which represents it through playing an "I Spy Game" or participating in three-period lessons.	•	•	•							19
Language Arts	Handwriting: Preparation 2	Metal Insets	Works with Metal Insets as presented, drawing an outline with the metal frame, then placing the inset over the outline and drawing another identical outline in a different color.	•	•	•							20
Language Arts	Handwriting: Preparation 2	Metal Insets	Fills in outline drawn with either frame or inset, using a zigzag pattern or colors.	•	•	•							21
Language Arts	Handwriting: Preparation 2	Metal Insets	Draws a design by rotating the inset or frame and shades.	•	•	•							22
Language Arts	Handwriting: Preparation 2	Metal Insets	Draws more advanced designs using two or more frames or insets.	•	•	•							23
Language Arts	Handwriting: Preparation 2	Metal Insets	Designs a longer pattern with repeating shapes and shades.		•	•	•	R					24
Language Arts	Handwriting: Preparation 2	Metal Insets	Draws a design by rotating the inset or frame on the diagonal.		•	•	•	R					25

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG 1s	t 2nd	3rd	4th	5th	6th	ID #
Language Arts	Handwriting: Preparation 2	Metal Insets	Creates various shades of colors when shading designs.	٠	• •	R					26
Language Arts	Handwriting: Preparation 2	Metal Insets	Demonstrates control of the pencil when tracing an object and creating designs.	•	• •	•	R				27
Language Arts	Handwriting: Preparation 3	Large Moveable Alphabet: Choosing Letters	Returns letters to correct space in the box (this is a preparatory exercise that is simply an exercise in visual discrimination).	• •	•						28
Language Arts	Handwriting: Preparation 3	Large Moveable Alphabet: Choosing Letters	Uses Large Moveable Alphabet: to build (encode) words he thinks of himself.	•	•						29
Language Arts	Handwriting: Preparation 3	Large Moveable Alphabet: Choosing Letters	Uses Large Moveable Alphabet: to build (encode) phrases or sentences he thinks of himself.	•	•						30
Language Arts	Handwriting: Preparation 3	Medium Moveable Alphabet: Building Words	Encodes words, phrases, and sentences.	•	• •						31
Language Arts	Handwriting: Preparation 3	Small Moveable Alphabet: Building Paragraphs	Encodes words, phrases, sentences, paragraphs, and short stories.	•	• •						32
Language Arts	Handwriting: Preparation 4	Blank green board: First writing - letters	Practices writing individual numbers and letters, first tracing the sandpaper symbols.	• •	•						33
Language Arts	Handwriting: Preparation 4	Pencil and paper - letters	Writes individual letters with pencil and paper, first tracing the sandpaper symbol.	•	•						34
Language Arts	Handwriting: Preparation 4	Blank green board: First writing - letter families	Writes families of letters with similar shapes, first tracing the sandpaper symbols.	•	•						35
Language Arts	Handwriting: Preparation 5	Green board with double lines: Positioning letters of the Small Moveable Alphabet	Places letters of the Small Moveable Alphabet between double lines, correctly positioning ascenders and descenders.	5	•						36
Language Arts	Handwriting: Preparation 5	Green board with double lines: Positioning letters of the Small Moveable Alphabet	Practices writing individual numbers and letters with correct placement of ascenders and descenders.	•	• •						37

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Language Arts	Handwriting: Preparation 6	Consolidation	Sorts letters of the Small Moveable Alphabet into three groups according to ascenders and descenders; checks own work by placing the letters in rows on the lined board.	• •	•	R					38
Language Arts	Handwriting: Preparation 6	Consolidation	Sorts the single-letter Sandpaper Letters into three groups according to ascenders and descenders, then writes the letters on lined paper after tracing each letter.	••	•	R					39
Language Arts	Handwriting: Preparation 6	Consolidation	Writes, on lined paper, all twenty- six single letters after tracing the corresponding Sandpaper Letters	••	•	R					40
Language Arts	Handwriting: Preparation 7	Sandpaper Capitals	Traces each of the twenty-six capital letters, associating the letter with the sound it represents	••	•	R					41
Language Arts	Handwriting: Preparation 7	Sandpaper Capitals	Traces each of the twenty-six capital letters, associating the letter with its name.	• •	•	R					42
Language Arts	Handwriting: Preparation 7	Sandpaper Capitals and Lower-Case Letters	Pairs the Sandpaper Capitals with the corresponding lower-case letters.	• •	•	R					43
Language Arts	Reading: Words 1	Beginning to decode words	Begins to decipher words that have been built with the Large Moveable Alphabet or in a book, etc.	• • •							44
Language Arts	Reading: Words 1	Object box 1: First reading	Silently reads word as they are written by directress and places them next to the correct object.	• •							45
Language Arts	Reading: Words 1	Object box 1: Prepared Word Cards	Works independently with Object Box 1, reading simple words, which are phonetically spelled with sounds represented by only one letter.	t • •	•						46
Language Arts	Reading: Words 1	Activity Words: Written	Silently reads words as they are written by directress and performs the correct action.	• •							47
Language Arts	Reading: Words 1	Activity Words: Set 1	Works independently with Activity Words Set 1, reading the words and performing the actions.	• •	•						48
Language Arts	Reading: Words 1	Object box 2: Reading written words	Silently reads words containing twelve key sounds, as they are written by the directress, and places them next to the correct object or picture.	• •	•	R					49

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Language Arts	Reading: Words 1	Object Box 2: Double-Letter Phonograms - Prepared Word Cards	Works independently with Object Box 2; silently reads words containing twelve key sounds and places them next to the correct object or picture.	•	•	•	R					50
Language Arts	Reading: Words 1	Activity Words: Double-Letter Phonograms - Prepared Word Cards	Silently reads words containing twelve key sounds, as they are written by the directress, and performs the appropriate action.	•	•	•	R					51
Language Arts	Reading: Words 1	Activity words: Double-Letter Phonograms - Prepared Word Cards	Silently reads words containing double- letter phonograms and performs the appropriate actions.	•	•	•	R					52
Language Arts	Reading: Words 1	Puzzle Words: 1	Silently reads Puzzle Words after receiving three-period lesson.	•	•	•	R					53
Language Arts	Reading: Books	Handmade Books	Silently reads little handmade books.	•	•	•	R					54
Language Arts	Reading: Alphabet	Sandpaper Letters, Moveable Alphabet, or Alphabet Strip	Displays a knowledge of the names of the letters of the alphabet.	•	•	•	R					55
Language Arts	Reading: Alphabet	Sandpaper Letters, Moveable Alphabet, or Alphabet Strip	Can say the names of the letters of the alphabet in order.	•	•	•	R					56
Language Arts	Reading: Alphabet	Sandpaper Letters, Moveable Alphabet, or Alphabet Strip	Names a letter of the alphabet when shown the corresponding symbol.	•	•	•	R					57
Language Arts	Reading: Key Sounds	Key Sound Folders	Recognizes symbols on outside of Key Sound Folders as being represented by Sandpaper Letters and double letters; can say corresponding sounds.	•	•	•	R					58
Language Arts	Reading: Key Sounds	Key Sound Folders	Reads booklets in Key Sound Folders.	•	•	•	R					59
Language Arts	Reading: Key Sounds	Key Sound Folders	Sorts card from any two folders to show that he has memorized the various families of phonograms.	•	•	•	R					60
Language Arts	Reading: Key Sounds	Key Sound Folders	Sorts cards from all fourteen folders to show that he has memorized the various families of phonograms.	•	•	•	R					61

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st 2	2nd	3rd	4th	5th	6th	ID #
Language Arts	Reading: Key Sounds	Key Sound Folders: The test	Writes all fourteen key sounds and corresponding phonograms.	• •	•	R					62
Language Arts	Reading: Key Sounds	Phonogram Dictionary	Uses Dictionary of Phonograms when he encounters unknown words in parallel reading activities.	• •	•	R					63
Language Arts	Reading: Words 1	Puzzle Words: 2	Silently reads Puzzle Words after receiving three-period lesson and being made aware of especially interesting aspects; demonstrates interest in and awareness of these points of interest.	••	•	R					64
Language Arts	Reading	Classified Nomenclature	Reads words using multiple sets of cards, sorted into different categories.	• •	•	R					65
Language Arts	Reading	Classified Nomenclature	Reads definitions using multiple sets of cards, sorted into differen categories.	t • •	•	R					66
Language Arts	Reading	Command Cards	Reads simple sentences (Command Cards).	• •	•						67
Language Arts	Reading	Command Cards	Reads compound sentences with understanding (Command Cards)		•	•	•				68
Language Arts	Reading	Command Cards	Reads complex sentences with understanding (Command Cards)		•	•	•				69
Language Arts	Reading	Various materials/books	Reads to others with enjoyment, style, and assurance.		•	•	•				70
Language Arts	Reading	Magazines	Reads magazines.		•	•	•	•	•	•	71
Language Arts	Reading	Novels	Reads more complex children's books.			•	•	•	•	•	72
Language Arts	Reading	Poetry books	Reads poetry with enjoyment, style, assurance, and understanding.		•	•	•	•	•	•	73
Language Arts	Function of Words: 1	The Function Games	Participates in Function Games a a verbal (non-written) level.	t • • •							74

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG 1	st 2nd	l 3rd	4th	5th	6th	ID #
Language Arts	Function of Words: 1	Noun Game: Farm	Displays an awareness of words which name things through game involving fetching objects.	• •	•						75
Language Arts	Function of Words: 1	Noun-Article Game: Farm	Displays an awareness of words that name things through game involving fetching objects: "Pick up a pig; give me the dog."	• •	•						76
Language Arts	Function of Words: 1	Noun-Adjective Game: Farm	Displays an awareness of words that describe things through game involving objects: "Give me the pink pig; move the brown cow."	€ ● ●	•						77
Language Arts	Function of Words: 1	Conjunction Game: Farm	Displays an awareness of the use of conjunctions as a means of joining phrases.	• •	•						78
Language Arts	Function of Words: 1	Preposition Game: Farm	Displays an awareness of the use of prepositions: "Move the cow behind the horse."	• •	•						79
Language Arts	Function of Words: 1	Verb Game: Farm	Displays an awareness of the use of verbs through games with the Farm: "Show me how the dog runs."	• •	•						80
Language Arts	Function of Words: 1	Pronoun Game: Farm	Displays an awareness of the use of pronouns through games with the Farm: "There is a pink pig. Please pass it to me."	• •	•						81
Language Arts	Dictation	Phonogram Booklets	Reads words from booklets while another child takes dictation.	•	•	R					82
Language Arts	Dictation	Phonogram Booklets	Takes dictation from another child reading from the Phonogram Booklets.	•	•	R					83
Language Arts	Reading of Words: 4	Nouns Game: Moveable Objects	Reads words in Noun Box and brings related objects to the work mat.	•	•	R					84
Language Arts	Reading of Words: 4	Nouns Game: Immoveable Objects	Reads words and places the labels next to objects in the environment.	•	•	R					85
Language Arts	Reading of Words: 4	Verbs	Reads words and performs the actions.	•	•	R					86
Language Arts	Reading of Words: 4	Prepositions	Reads words and moves to place own body in relation to an object (e.g., card reads "over" - child stands on mat; card reads "under" - child goes under a table, etc.).	,	• (	R					87

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Language Arts	Function of Words: 2	Noun Game	Is able to recognize words that are nouns and how they function in a sentence.	• •	•	R					88
Language Arts	Function of Words: 2	Noun-Article Game	Is able to recognize the three articles found in the English language and how they function in a sentence.	• •	•	R					89
Language Arts	Function of Words: 2	Noun-Adjective Game	Is able to recognize words that are adjectives and how they function in a sentence.	• •	•	R					90
Language Arts	Function of Words: 2	Conjunction Game	Is able to recognize words that are conjunctions and how they function in a sentence.	• •	•	R					91
Language Arts	Function of Words: 2	Preposition Game	Is able to recognize words that are prepositions and how they function in a sentence.	• •	•	•	R				92
Language Arts	Function of Words: 2	Verb Game	Is able to recognize words that are verbs and how they function in a sentence.	• •	•	•	•	R			93
Language Arts	Function of Words: 2	Pronoun Game	Is able to recognize words that are pronouns and how they function in a sentence.	• •	•	•	R				94
Language Arts	Word Study: 1	Animals and their homes	Reads and matches the names of animals with their homes.	• •	•						95
Language Arts	Word Study: 1	Animals and their sounds	Reads and matches the names of animals with their sounds.	• •	•						96
Language Arts	Word Study: 1	Animals and their young	Reads and matches the names of animals with their young.	• •	•						97
Language Arts	Word Study: 1	Compound Words	Reads and matches words to create compound words.	• •	•						98
Language Arts	Word Study: 1	Positive, Comparative, and Superlative	Reads and sorts words into corresponding sets of positive, comparative, and superlative.	• •	•						99
Language Arts	Word Study: 1	Collective Nouns: General	Reads and pairs collective nouns with the corresponding noun.	• •	•						100

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Language Arts	Word Study: 1	Singular and Plural	Demonstrates an understanding of concept of singular and plural.	• •	•						101
Language Arts	Word Study: 1	Singular and Plural	Reads and categorizes words according to singular and plural.	• •	•						102
Language Arts	Word Study: 1	Masculine and Feminine	Reads and categorizes words according to masculine and feminine.	• •	•						103
Language Arts	Function of Words: 3	Detective Adjective Game	Plays the Detective Adjective Game with adult or other children to demonstrate an understanding of the rule of adjectives in describing objects.		•	•	R				104
Language Arts	Composition: 1	Large or Medium Moveable Alphabet	Child composes one-word answers with a Moveable Alphabet in response to a question asked by the teacher.	I •	R						105
Language Arts	Composition: 1	Small Moveable Alphabet	Composes phrases with spaces separating individual words.		•	•	R				106
Language Arts	Composition: 1	Moveable Alphabets: Correcting Spelling	Child composes stories with Moveable Alphabet and asks directress to correct spelling before writing the story on paper	•	•	R					107
Language Arts	Composition: 1	Printed Alphabet	Composes sentences with punctuation.	Ι	•	•	•	R			108
Language Arts	Composition: 1	Written Composition	Transcribes own sentences and stories (pencil and paper).		•	•	•	R			109
Language Arts	Composition: 1	Written Composition	Reads own stories to group during story time.		•	•	•	r			110
Language Arts	Speaking and Listening Skills	Individual Expression	Is able to express ideas logically, succinctly, and politely.	• •	•	•	•	R	R	R	111
Language Arts	Speaking and Listening Skills	Individual Expression	Delivers well-organized oral reports.		•	•	•	•	•	•	112
Language Arts	Speaking and Listening Skills	Individual Expression	Recites short poems, songs, and rhymes from memory.	• • •	•	•	•	•	•	R	113

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG 1	t 2nd	3rd	4th	5th	6th	ID #
Language Arts	Speaking and Listening Skills	Individual Expression	Tells stories in logical sequence.	•	• •	R	R	R	R	R	114
Language Arts	Speaking and Listening Skills	Group Expression	Participates with others in choric reading.		•	•	•	•	R	R	115
Language Arts	Speaking and Listening Skills	Individual Expression	Presents formal speeches to demonstrate, inform, or entertain	L.			•	•	•	•	116
Language Arts	Speaking and Listening Skills	Individual Expression	Participates in informal dialogue.	•	• •	•	•	٠	•	•	117
Language Arts	Speaking and Listening Skills	Individual Expression	Reads a dramatic part in a play.	•	• •	•	•	•	•	•	118
Language Arts	Speaking and Listening Skills	Individual Expression	Conducts an interview.				•	•	•	•	119
Language Arts	Speaking and Listening Skills	Individual Understanding	Follows oral instructions.	• •	• •	•	•	R	R	R	120
Language Arts	Speaking and Listening Skills	Individual Understanding	Follows simple one- to two-step commands.	• •	• 1	Ł					121
Language Arts	Speaking and Listening Skills	Individual Understanding	Follows complex three- to five- step commands.	•	• •	•	R	R	R	R	122
Language Arts	Speaking and Listening Skills	Individual Understanding and Response	Listens purposefully and responds appropriately in conversation.	• •	• •	•	R	R	R	R	123
Language Arts	Speaking and Listening Skills	Individual Understanding and Response	Listens for details and answers questions about information presented orally or in a story.	• •	• •	•	•	•	•	•	124
Language Arts	Speaking and Listening Skills	Individual Understanding and Response	Names the characters in a story.	• •	• •	•	•	R	R	R	125
Language A <del>r</del> ts	Speaking and Listening Skills	Individual Understanding and Response	Identifies a character's traits or behaviors.	•	•	•	•	R	R	R	126
Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
------------------	----------------------------------	---	---	----------------	-----	-----	-----	-----	-----	-----	------
Language Arts	Speaking and Listening Skills	Individual Understanding and Response	Identifies a character's feelings.	• • •	•	•	•	•	R	R	127
Language Arts	Speaking and Listening Skills	Individual Understanding and Response	Retells a story or restates directions.	• • •	•	•	•	R	R	R	128
Language Arts	Speaking and Listening Skills	Individual Understanding and Response	Summarizes the plot of a story.		•	•	•	•	•	R	129
Language Arts	Speaking and Listening Skills	Individual Understanding and Response	Indicates the chronological order of events.	• • •	•	•	R	R	R	R	130
Language Arts	Speaking and Listening Skills	Individual Understanding and Response	Identifies the cause of an event.	• • •	•	•	•	•	•	•	131
Language Arts	Speaking and Listening Skills	Individual Understanding and Response	Explains the problem that a character faces and how he/she resolves it.	• • •	•	•	•	•	•	R	132
Language Arts	Speaking and Listening Skills	Individual Understanding and Response	Makes reasonable predictions about what will happen next in a story.	• •	•	•	•	R	R	R	133
Language Arts	Speaking and Listening Skills	Individual Understanding and Response	Identifies the speakers in a dialogue.	• •	•	•	•	R	R	R	134
Language Arts	Speaking and Listening Skills	Individual Understanding and Response	Identifies to whom a pronoun is referring.	• •	•	•	•	R	R	R	135
Language Arts	Handwriting: 1	Pencil and Paper	Has mastered the ability to write in the school's chosen font: lower-case letters.	• •	•	R	R				136
Language Arts	Handwriting: 1	Pencil and Paper	Has mastered the ability to write in the school's chosen font: upper-case letters.	• •	•	R	R				137
Language Arts	Handwriting: 1	Pencil and Paper	Has mastered the ability to space letters appropriately within a word when writing in the school' chosen font.	s •	•	R	R				138
Language Arts	Handwriting: 1	Pencil and Paper	Has mastered the ability to leave appropriate space between words when writing in the school's chosen font.	• •	•	R	R				139

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Language Arts	Handwriting: 2	Pencil and Paper	Has mastered the ability to write in cursive form: lower-case letters.	• •	•	•					140
Language Arts	Handwriting: 2	Pencil and Paper	Has mastered the ability to write in cursive form: upper-case letters.	• •	•	•					141
Language Arts	Handwriting: 2	Pencil and Paper	Has mastered the ability to space letters appropriately within a word when writing in cursive form.	• •	•	•	•				142
Language Arts	Handwriting: 2	Pencil and Paper	Has mastered the ability to leave appropriate space between words when writing in cursive form.	• •	•	•	•				143
Language Arts	Handwriting: 2	Pencil and Paper	Writes cursive smoothly and easily.		•	•	•	•	R	R	144
Language Arts	Handwriting: 3	Calligraphy Pens and Paper	Chooses to use decorative writing in preparing attractive papers, notes, letters, and reports.	5			•	•	•	•	145
Language Arts	Sentence Elements	Grammar Box: 1	Uses the Montessori Grammar Boxes to understand the function of the article in a sentence.		•	•	•				146
Language Arts	Sentence Elements	Grammar Box: 1	Uses the Montessori Grammar Boxes to understand the function of the noun in a sentence.		•	•	•				147
Language Arts	Sentence Elements	Grammar Box: 2	Uses the Montessori Grammar Boxes to understand the function of the adjective in a sentence.		•	•	•				148
Language Arts	Sentence Elements	Grammar Box: 3	Uses the Montessori Grammar Boxes to understand the function of the verb in a sentence.		•	•	•				149
Language Arts	Sentence Elements	Grammar Box: 4	Uses the Montessori Grammar Boxes to understand the function of the preposition in a sentence.			•	•				150
Language Arts	Sentence Elements	Grammar Box: 5	Uses the Montessori Grammar Boxes to understand the function of the adverb in a sentence.			•	•				151
Language A <del>r</del> ts	Sentence Elements	Grammar Box: 6	Uses the Montessori Grammar Boxes to understand the function of the pronoun in a sentence.			•	•				152

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Language Arts	Sentence Elements	Grammar Box: 7	Uses the Montessori Grammar Boxes to understand the function of the conjunction in a sentence.	L		•	•				153
Language Arts	Sentence Elements	Grammar Box: 8	Uses the Montessori Grammar Boxes to understand the function of the interjection in a sentence.	I		•	•				154
Language Arts	Function of Words: 2	Verb-Adverb Game	Recognizes words that are adverbs and how they function in a sentence.	L	•	•	R				155
Language Arts	Sentence Analysis	Sentence Analysis Charts 1 & 2	Understand what makes up a simple sentence by using Charts 1 & 2.	l	•	R	R				156
Language Arts	Sentence Analysis	Sentence Analysis Charts 1 & 2	Analyzes simple sentences by using Charts 1 & 2.		•	R	R	R			157
Language Arts	Sentence Analysis	Sentence Analysis Boxes	Constructs a simple sentence by using the Sentence Analysis Guides		•	•	R	R			158
Language Arts	Sentence Analysis	Sentence Analysis Charts 3-5	Understands what makes up complex sentences and the variety of adverbial extensions by using Charts 3-5.	y			•	•	•	R	159
Language Arts	Sentence Analysis	Sentence Analysis Charts 3-5	Analyzes complex sentences and sentences that contain a variety of adverbial extensions by using Charts 3-5.	f			•	•	•	R	160
Language Arts	Sentence Analysis	Sentence Analysis Boxes	Constructs complex sentences and sentences that contain adverbial extensions by using the sentence analysis materials.				•	•	•	R	161
Language Arts	Grammar Study	Teacher-made or purchased task cards with varying levels for in-depth study of the noun and noun research	Identifies the different types of nouns.				•	•	•	•	162
Language Arts	Grammar Study	Teacher-made or purchased task cards s with varying levels for in-depth study of the adjective and adjective research	Identifies the different types of adjectives.				•	•	•	•	163

Area	Strand	Lesson/Material	Curriculum Element	Age	3 Age -	4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Language Arts	Grammar Study	Teacher-made or purchased task cards with varying levels for in-depth study of the verb and verb research	Identifies the different types of verbs.						•	•	•	•	164
Language Arts	Grammar Study	Teacher-made or purchased task cards with varying levels for in-depth study of the pronoun and pronoun research	Identifies the different types of pronouns.						•	•	•	•	165
Language Arts	Grammar Study	Teacher-made or purchased task cards with varying levels for in-depth study of the adverb and adverb research	Identifies the different types of adverbs.						•	•	•	•	166
Language Arts	Grammar Study	Teacher-made or purchased task cards , or student- driven materials	Conjugates common regular verbs.						•	•	•	•	167
Language Arts	Grammar Study	Teacher-made or purchased task cards and student- driven materials	Conjugates common irregular verbs.						•	•	•	•	168
Language Arts	Grammar Study	Teacher-made or purchased task cards and student- driven materials	Declines personal pronouns.					•	•	•	•	•	169
Language Arts	Sentence Diagrams	Teacher-made material or bought task cards that direct students in these activities	Diagrams simple sentences.								•	•	170
Language Arts	Sentence Diagrams	Teacher-made material or bought task cards that direct students in these activities	Diagrams compound sentences.								•	•	171
Language Arts	Sentence Diagrams	Teacher-made material or bought task cards that direct students in these activities	Diagrams complex sentences.								•	•	172
Language Arts	Sentence Diagrams	Teacher-made material or bought task cards that direct students in these activities	Diagrams the main clause and subordinate clauses in a sentence	<u>.</u>							•	•	173

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Language Arts	Sentence Diagrams	Teacher-made material or bought task cards that direct students in these activities	Diagrams the various complements in a sentence.						•	•	174
Language Arts	Reading Comprehension	Appropriate-Level Books	Summarizes the plot of a story.	• •	•	•	•	•	R	R	175
Language Arts	Reading Comprehension	Appropriate-Level Books	Names the characters in a story.	• •	•	•	•	R	R	R	176
Language Arts	Reading Comprehension	Appropriate-Level Books	Identifies a character's traits or behaviors.	• •	•	•	•	•	•	•	177
Language Arts	Reading Comprehension	Appropriate-Level Books	Identifies the cause of an event.	• •	•	•	•	•	•	R	178
Language Arts	Reading Comprehension	Appropriate-Level Books	Identifies a character's feelings.		•	•	•	•	•	R	179
Language Arts	Reading Comprehension	Appropriate-Level Books	Indicates the chronological order of events.		•	•	•	•	R	R	180
Language Arts	Reading Comprehension	Appropriate-Level Books	Explains the problem that a character faces and how he/she resolves it.		•	•	•	•	•	•	181
Language Arts	Reading Comprehension	Appropriate-Level Books	Makes reasonable predictions about what will happen next in a story.		•	•	•	•	•	•	182
Language Arts	Reading Comprehension	Appropriate-Level Books	Identifies the main idea in a short essay.	;	•	•	•	•	•	R	183
Language Arts	Reading Comprehension	Appropriate-Level Books	Identifies the speakers in a dialogue.	• •	•	•	•	•	R	R	184
Language Arts	Word Study: 2	Teacher-made or purchased task cards and student- driven materials	Identifies and uses compound words.	• •	•	R	R	R	R	R	185
Language Arts	Word Study: 2	Teacher-made or purchased task cards and student- driven materials	Identifies and uses contractions.		•	•	•	•	R	R	186

Area	Strand	Lesson/Material	Curriculum Element	Age 3 A	.ge 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Language Arts	Word Study: 2	Teacher-made or purchased task cards and student- driven materials	Identifies and uses prefixes.			•	•	•	•	R	R	187
Language Arts	Word Study: 2	Teacher-made or purchased task cards and student- driven materials	Identifies and uses suffixes.		• •	•	•	•	•	R	R	188
Language Arts	Word Study: 2	Teacher-made or purchased task cards and student- driven materials	Identifies and uses antonyms.		• •	•	•	•	•	R	R	189
Language Arts	Word Study: 2	Teacher-made or purchased task cards and student- driven materials	Identifies and uses synonyms.		• •	•	•	•	•	R	R	190
Language Arts	Word Study: 2	Teacher-made or purchased task cards and student- driven materials	Identifies and uses homophones.			•	•	•	•	R	R	191
Language Arts	Word Study: 2	Teacher-made or purchased task cards and student- driven materials	Identifies and uses hyphenated words.					•	•	•	•	192
Language Arts	Word Study: 2	Teacher-made or purchased task cards and student- driven materials	Identities common acronyms.					•	•	•	•	193
Language Arts	Word Study: 2	Teacher-made or purchased task cards and student- driven materials	Identifies common contractions.				•	•	•	•	•	194
Language Arts	Word Study: 2	Teacher-made or purchased task cards and student- driven materials	Identifies common abbreviations.				•	•	•	•	•	195
Language Arts	Word Study: 2	Teacher-made or purchased task cards and student- driven materials	Solves simple crossword puzzles.				•	•	•	•	•	196
Language Arts	Word Study: 2	Teacher-made or purchased task cards and student- driven materials	Solves advanced elementary crossword puzzles .					•	•	•	•	197
Language Arts	Spelling: 1	Teacher-made materials, purchased task cards, spelling books, and/or student-driven materials	Spells words appropriate to level.			•	•	•	•	•	•	198

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Language Arts	Spelling: 2	Student-driven material	Spells correctly when writing simple sentences.			•	•	•	R	R	199
Language Arts	Spelling: 2	Student-driven material	Spells correctly when writing complex sentences.				•	•	•	•	200
Language Arts	Spelling: 3	Student-driven material and dictionary	Uses a dictionary to check and correct spelling.			•	•	•	•	•	201
Language Arts	Spelling: 3	Student-driven material and word processing software	Uses the spell-check feature of word-processing software to check and correct spelling.				•	•	•	•	202
Language Arts	Mechanics	Teacher-made or purchased task cards and student- driven materials	Follows correct rules of capitalization: initial words in sentences.		•	•	R	R			203
Language Arts	Mechanics	Teacher-made or purchased task cards and student- driven materials	Follows correct rules of capitalization: proper nouns / pronoun T.		•	•	•	R			204
Language Arts	Mechanics	Teacher-made or purchased task cards and student- driven materials	Follows correct punctuation rules: sentence endings.		•	•	R	R			205
Language Arts	Mechanics	Teacher-made or purchased task cards and student- driven materials	Follows correct punctuation rules: use of the comma.			•	•	•	•	•	206
Language Arts	Mechanics	Teacher-made or purchased task cards and student- driven materials	Follows correct punctuation rules: use of quotation marks.				•	•	•	•	207
Language Arts	Mechanics	Teacher-made or purchased task cards and student- driven materials	Follows correct punctuation rules: abbreviations.				•	•	R	R	208
Language Arts	Mechanics	Teacher-made or purchased task cards and student- driven materials	Follows correct punctuation rules: punctuating letters and envelopes.			•	•	•	R	R	209
Language Arts	Mechanics	Teacher-made or purchased task cards and student- driven materials	Follows correct punctuation rules: use of the colon.				•	•	٠	•	210
Language Arts	Mechanics	Teacher-made or purchased task cards and student- driven materials	Follows correct punctuation rules: use of the semicolon.				•	•	•	•	211

	Montes	sori Foundati	ion Curriculum Scop	e and S	equ	ıen	ce:	Ag	ges	3 to	o 12	2
	C v	Commonly, by the envil be able to demo-	nd of the span of age or grade le nstrate the following skills, kno	evels indica wledge, and	ited b d/or	oelov unde	v, sti ersta	iden ndinş	ts g:			
Ārea	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Language Arts	Mechanics	Teacher-made materials, purchased task cards, spelling books, and/or student-driven materials	Follows correct punctuation rules: punctuating "formal" letters and envelopes.					•	•	•	•	212
Language Arts	Creative Writing	Student-driven material	Writes logical noun phrases.	•	•	•	R					213
Language Arts	Creative Writing	Student-driven material	Writes logical simple sentences.			•	R					214
Language Arts	Creative Writing	Student-driven material	Writes captions for pictures.	•	•	•	R					215
Language Arts	Creative Writing	Student-driven material	Writes logical paragraphs.				•	•	•	R	R	216
Language Arts	Creative Writing	Student-driven material	Writes creative short stories.	٠	•	•	•	•	•	R	R	217
Language Arts	Creative Writing	Student-driven material	Writes creative longer stories that follow an organized plot.					•	•	•	•	218
Language Arts	Creative Writing	Student-driven material	Writes logical compound sentences.					•	•	•	•	219
Language Arts	Creative Writing	Student-driven material	Writes logical complex sentences.					•	•	•	•	220
Language Arts	Creative Writing	Student-driven material and thesaurus	Uses a thesaurus to identify alternative words.					•	•	•	R	221
Language Arts	Creative Writing	Student-driven material	Writes 'informal' letters to friends and relatives.	•	•	•	•	•	•	R	R	222
Language Arts	Creative Writing	Student driven material	Writes creative poems.	•	•	•	•	•	•	•	•	223
Language Arts	Creative Writing	Student-driven material	Writes 'formal' letters to industries, agencies, or government officials.					•	•	•	•	224

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Language Arts	Creative Writing	Student-driven material	Writes logical three-paragraph essays within the different essay genres.				•	•	•		225
Language Arts	Creative Writing	Student-driven material	Writes simple creative plays.			•	•	•	•	•	226
Language Arts	Creative Writing	Student-driven material	Writes logical five-paragraph essays within the different essay genres.						•	•	227
Language Arts	Research Skills	Teacher-made or purchased task cards and student- driven materials	Correctly applies rules of alphabetization: by first letter only.	• •	•	•					228
Language Arts	Research Skills	Teacher-made or purchased task cards and student- driven materials	Correctly apples rules of alphabetization: by first two letters.		•	•	•				229
Language Arts	Research Skills	Teacher-made or purchased task cards and student- driven materials	Correctly applies rules of alphabetization: by entire word.			•	•				230
Language Arts	Research Skills	Teacher-made or purchased task cards and student- driven materials	Has developed basic dictionary skills in locating words.		•	•	•				231
Language Arts	Research Skills	Teacher-made or purchased task cards and student- driven materials	Has developed basic dictionary skills using guide words.			•	•				232
Language Arts	Research Skills	Teacher-made or purchased task cards and student- driven materials	Has developed basic dictionary skills in understanding the simple definition of a word.	e	•	•	•				233
Language Arts	Research Skills	Teacher-made or purchased task cards and student- driven materials	Has developed basic dictionary skills in understanding the multiple definitions of a word.				•	•	•	•	234
Language Arts	Research Skills	Teacher-made or purchased task cards and student- driven materials	Has developed basic dictionary skills in the understanding of entry/base words.				•	•	R		235
Language Arts	Research Skills	Teacher-made or purchased task cards and student- driven materials	Has developed basic dictionary skills in understanding how to determine the parts of speech of word.	a			•	•	•	R	236
Language Arts	Research Skills	Teacher-made or purchased task cards and student- driven materials	Determines the number of syllables in a word.			•	•	•	R		237

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Language Arts	Research Skills	Teacher-made or purchased task cards and student- driven materials	Uses the encyclopedia to locate an article under a given heading.			•	•				238
Language Arts	Research Skills	Teacher-made or purchased task cards and student- driven materials	Uses the encyclopedia to locate specific answers to given questions in an encyclopedia article.				•	•	R	R	239
Language Arts	Research Skills	Teacher-made or purchased task cards and student- driven materials	Identifies the key information in an encyclopedia article.				•	•	R	R	240
Language Arts	Research Skills	Student-driven material and various reference materials	Uses cross-references to seek out additional information.				•	•	•	•	241
Language Arts	Research Skills	Student-driven material and various reference materials	Locates books that offer additional information when researching a subject.			•	•	•	•	•	242
Language Arts	Research Skills	Reference materials	Identifies the information on the title page.			•	•	R			243
Language Arts	Research Skills	Reference materials	Uses the table of contents.			•	•	R			244
Language Arts	Research Skills	Reference materials	Uses the index.			•	•	•	•		245
Language Arts	Research Skills	Reference materials	Copies information from a book.		•	•	R				246
Language Arts	Research Skills	Reference materials	Paraphrases information taken from a resource book into a simple written report.				•	•	•		247
Language Arts	Research Skills	Reference materials	Summarizes information taken from a resource book into a written report.				•	•	•		248
Language Arts	Research Skills	Reference materials	Takes subject notes from reference books, by bullet points onto note cards.				•	•	•	•	249
Language Arts	Research Skills	Student-driven material	Paraphrases information taken from bullet-point notes and note cards.				•	•	•	•	250

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Language Arts	Research Skills	Student-driven material	Outlines information.					•	•	•	•	251
Language Arts	Research Skills	Student-driven material	Proofreads material to identify spelling and grammatical errors.					•	•	•	•	252
Language Arts	Research Skills	Student-driven material	Knows how to cite references in a report.					•	•	•	•	253
Language Arts	Research Skills	Student-driven material	Knows how to use footnotes in a report.								•	254
Language Arts	Research Skills	Student-driven material	Prepares a bibliography for a report.					•	•	•	•	255
Language Arts	Research Skills, Writing Skills, Grammar Skills, Mechanic Skills	Student-driven material	Uses the research and composition skills listed above to consider a given topic in a formal report, using skills of analysis, synthesis, and evaluation.					•	•	•	•	256
Language Arts	Literature Appreciation	Reading materials/ student driven	Reads independently with enjoyment and appreciation, selecting titles of personal interest.	•	•	•	•	•	•	•	•	257
Language Arts	Literature Appreciation	Reading materials/ student driven	Identifies different genre found in literature.	ı				•	•	•	•	258
Language Arts	Literature Appreciation	Reading materials/ student driven	Is able to think and report analytically about literature.			•	•	•	•	•	•	259
Language Arts	Literature Appreciation	Reading materials/ student driven	Identifies and describes the sections of a newspaper.					•	•	•	•	260
Language Arts	Film Appreciation	Documentary and other Film Media	Identifies different genre found ir films.	ı				•	•	•	•	261
Language Arts	Film Appreciation	Documentary and other Film Media	Is able to think and report analytically about films.					•	•	•	•	262
Language Arts	Art Appreciation	Interpretation of Art	Identifies various art styles and artists.					•	•	•	•	263

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 K0	G 1st	2nd	3rd	4th	5th	6th	ID #
Language Arts	Art Appreciation	Interpretation of Art	Is able to think and report analytically about art.				•	•	•	•	264
Language Arts	Music Appreciation	Interpretation of Music	Identifies various music styles and musicians.	d			•	٠	•	•	265
Language Arts	Music Appreciation	Interpretation of Music	Is able to think and report analytically about music.				•	•	•	٠	266
Language Arts	Visual Media Comprehension	Visual Media/student driven	Identifies the claims being made about a product in an advertisement.					Ι	•	•	267
Language Arts	Visual Media Comprehension	Visual Media/student driven	Identifies the factual information that is offered to support these claims.					Ι	•	•	268
Language Arts	Visual Media Comprehension	Visual Media/student driven	Identifies the overt or implied message(s) used in the ad's attempt to persuade you to buy.					Ι	•	•	269
Language Arts	Visual Media Comprehension	Visual Media/student driven	Identifies any illogical propositions that an advert is asking the reader to accept.					Ι	•	•	270
Language Arts	Debate/ Persuasion	Debate/student driven	Summarizes the main thrust of a writer or speaker's proposition in either written or oral argument and debate.	L				Ι	•	•	271
Language Arts	Debate/ Persuasion	Debate/student driven	Identifies the writer or speaker's apparent point of view in either written or oral argument and debate.					Ι	•	•	272
Language Arts	Debate/ Persuasion	Debate/student driven	Identifies the factual information that the writer or speaker offers to support his/her proposition in either written or oral argument and debate.	1				Ι	•	•	273
Language Arts	Debate/ Persuasion	Debate/student driven	Identifies any illogical arguments used by the writer or speaker to promote his/her proposition in either written or oral argument and debate.						Ι	•	274



# Curriculum Scope & Sequence The Math Curriculum

Students who learn math by rote often have no real understanding or ability to put their skills to use in everyday life. Learning comes much more easily when they work with concrete educational materials that graphically show what is taking place in a given mathematical process.

Montessori students use hands-on learning materials that make abstract concepts clear and concrete. They can literally see and explore what is going on. The Montessori approach to teaching mathematics offers a clear and logical strategy for helping students understand and develop a sound foundation in mathematics and geometry.

The Montessori Math curriculum is based on the European tradition of Unified Math, which has only recently begun to be incorporated into the American math curriculum.

Unified Math introduces Elementary students to the study of the fundamentals of algebra, geometry, logic, and statistics along with the principles of arithmetic. This study continues over the years, weaving together subjects that traditional schools normally ignore until the secondary grades.

The concrete Montessori Math materials are perhaps the best known and most imitated elements of Dr. Montessori's work. These elegant and simply lovely materials hold a fascination for most children and adults alike.



They proceed through several levels of abstraction, beginning with concepts and skills that are the most basic foundations of mathematics, presented in the most concrete representation, up through the advanced concepts of secondary mathematics, which are represented in increasing levels of abstraction, until the student grasps them conceptually.



The Montessori Foundation • 19600 E SR 64 • Bradenton, FL 34212 941-729-9565 • www.montessori.org

#### . . . . . . . . . . . . . . . .

Math Curriculum . 2

#### How to Read the Code of Dots and Letters Used in the Scope and Sequence:

Montessori does not organize curriculum by the grade level at which topics are to be taught. We assume that children learn at different paces and learn best in different ways. In most cases, students in Montessori programs will work on any given skill or concept over several years. We introduce students to new lessons as soon as they seem to be ready. Likewise, we have a plan of what Montessori students ought to learn and the age/grade levels at which which we expect mastery from most students.

Instead of arranging our curriculum by grade level, we organize it by the subsets of concepts and skills (Strands) and the sequence in which they will be taught. In our Curriculum Scope and Sequence, to the right of the list of curriculum elements, we use a series of vertical columns to represent a given span of ages or grades. We use large dots to indicate the age or grade levels at which we anticipate a given lesson will be presented. Since we do not follow a grade-by-grade curriculum, the age or grade when a child will actually be ready to begin work depends on his or her developmental readiness. Our Dot Code is simply a guideline for Montessori educators.

When viewed in color on a computer, the dots follow a pattern of green, blue, and red, which is repeated at each Montessori three-year program cycle. The color coding makes it somewhat easier to see at which age/grade levels we anticipate children will work on concepts or skills. Normally, students return to work many times over two years or longer before they truly understand what they have studied and retain it over time.

	Montes	so <del>r</del> i Foundat	ion Curriculum Scop	e a	nd S	eq	uet	ıce	: A	ges	3 t	o 12	2
	C V	Commonly, by the e vill be able to demo	nd of the span of age or grade lonstrate the following skills, know	evel wlec	s indica lge, and	ited   l/or	belo und	w, st ersta	uden ndin	ts g:			
Area	Strand	Lesson/Material	Curriculum Element	Age	3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Golden Bead Materials	Demonstrates an understanding of the concept of change between hierarchies, using additive quantities with Golden Bead Materials.		•	•	R						25
Mathematics	Decimal System: Introduction to Place Value: 2	Constructing Quantities with the Golden Beads and Number Cards	Constructs, identifies, and names the quantity (naming correctly from left to right), up to 9,999, represented by an assembly of Golden Beads.		•	•	R						26

As you can see by the example above, we expect that the two Math skills shown (items number 25 and 26) will normally be introduced at age four, and we anticipate that children will continue to work on them over the following year. The "R" shown in the 1st-grade column indicates that we suggest that the teachers ought to review and re-test to see if the child still understands the concept or skill. In some case the symbol "I" is used to indicate that a child should be given a first introduction to a concept or skill at a given age/grade level. Students often work on some concepts and skills over the course of several years.

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Decimal System: Number Concepts	Red and Blue Number Rods	Counts to 10 by units using the Red and Blue Number Rods.	• • •							1
Mathematics	Decimal System: Number Concepts	Sandpaper Numerals	Recognizes numerals from 0 - 9 using the Sandpaper Numerals.	• • •							2
Mathematics	Decimal System: Number Concepts	Red and Blue Number Rods and Sandpaper Numerals	Associates the numeral to the quantity using the Red and Blue Number Rods and Numeral Cards.	• • •							3
Mathematics	Fundamentals of the Decimal System: Number Concepts: 1	Spindle Boxes	Counts to 9 units using separate units with the Spindle Boxes.	• • •							4
Mathematics	Fundamentals of the Decimal System: Number Concepts: 1	Spindle Boxes	Demonstrates an understanding of Zero as an empty set using the Spindle Boxes.	• • •							5
Mathematics	Fundamentals of the Decimal System: Number Concepts: 1	Spindle Boxes	Represents individual spindles as sets by binding each quantity together with green ribbon, tied in a bow, to form a set of 2, 3, 4, 5 9 spindles.	• •							6
Mathematics	Fundamentals of the Decimal System: Number Concepts: 1	Cards and Counters	Counts to 10 by units using the Cards and Counters.	• • •							7
Mathematics	Fundamentals of the Decimal System: Number Concepts: 1	Sequencing Numeral Cards	Lays out loose numeral cards 1-9 in correct sequence without the use of a control.	• • •							8
Mathematics	Fundamentals of the Decimal System: Number Concepts: 1	Cards and Counters	Lays out counters to indicate the concept of odd and even.	• • •							9
Mathematics	Fundamentals of the Decimal System: Number Concepts: 1	Cards and Counters	Identifies and names odd and even quantities.	• • •							10
Mathematics	Fundamentals of the Decimal System: Introduction to Place: Value	Introduction to the Golden Beads Set	Identifies and names quantities 1, 10, 100 and 1,000 using the Golden Beads.	•••							11
Mathematics	Decimal System: Introduction to Place Value: 1	Color-Coded Number Cards	Identifies and names numerals fo 1, 10, 100, 1,000 using the Color- Coded Number Cards.	r • •							12

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Decimal System: Introduction to Place Value: 1	Golden Beads and Number Cards	Associates numeral to quantity 1, 10, 100, 1,000.	•	•							13
Mathematics	Decimal System: Introduction to Place Value: 1	Golden Beads	Identifies and names quantities from 1 to 9,999 using the Golden Beads.		•							14
Mathematics	Decimal System: Introduction to Place Value: 1	Color-Coded Number Cards	Identifies and names numerals from one to 9 999 using the Color-Coded Number Cards according to place value.	•	•							15
Mathematics	Decimal System: Introduction to Place Value: 1	Golden Beads and Number Cards	Associates numeral and quantity one to 9,999 using the Golden Beads and Color -Coded Number Cards.	•	•							16
Mathematics	Decimal System: Introduction to Place Value: 1	Golden Beads and Number Cards	Demonstrates awareness and understanding of Zero as a place holder.	•	•							17
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Colored Bead Stair	Associates quantities 1 - 9 with the bars of the Colored Bead Stair.	• •	•							18
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Ten Bead Bars and Colored Bead Stair	Constructs, identifies, and names the quantities from 11 to 19 (using correct names eleven, twelve, etc.) by using the Golden Bead Ten Bars, and the Colored Bead Stair.	•	•	R						19
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Teen Board	Constructs, identifies and names the numerals from 11 to 19 by units using the Teen Board.	•	•	R						20
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Teen Board, Ten Bead Bars and Colored Bead Stair	Associates quantities and numerals 11 - 19 using the Teen Boards, Golden Bead Ten Bars, and Colored Bead Stair.	•	•	R						21
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Golden Bead Materials	Constructs, identifies, and names the quantities from 11 to 99 (using correct names eleven, twelve, etc.) by using the Golden Bead Ten Bars and the Golden Unit Beads.	•	•	R						22
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Ten Board and Golden Beads	Identifies that one more than nine takes the number to the next ten.	t •	•	R						23
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Ten Board, Ten Bead Bars, and Unit Beads	Associates quantity with numerals, using correct names, 11 to 99 by using the Ten Boards, Golden Bead Ten Bars, and the Golden Unit Beads.	•	•	R						24

Area	Strand	Lesson/Material	Curriculum Element	Age 3	3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Golden Bead Materials	Demonstrates an understanding of the concept of change between hierarchies, using additive quantities with Golden Bead Materials.	l	•	•	R						25
Mathematics	Decimal System: Introduction to Place Value: 2	Constructing Quantities with the Golden Beads and Number Cards	Constructs, identifies, and names the quantity (naming correctly from left to right), up to 9,999, represented by an assembly of Golden Beads.		•	•	R						26
Mathematics	Decimal System: Introduction to Place Value: 2	Reading Quantities Constructed with the Golden Beads and Number Cards	Constructs, identifies, and names the numerals (naming correctly from left to right), up to 9,999, represented by the Colored Numeral Cards.		•	•	R						27
Mathematics	Fundamentals of the Decimal System: Number Concepts: 3	The Hundred Chain and Arrows	Counts from 1 to 100 by units, recognizing the printed numerals on the Number Srrows, using the 100 Chain.		•	•	R						28
Mathematics	Fundamentals of the Decimal System: Number Concepts: 3	The Hundred Chain and Arrows	Recognizes that 100 is the square of 10.		•	•	R						29
Mathematics	Fundamentals of the Decimal System: Number Concepts: 3	The Hundred Board	Counts from 1 to 100 by units, recognizing the printed numerals, using the Hundred Board.		•	•	R						30
Mathematics	Fundamentals of the Decimal System: Number Concepts: 3	The Hundred Board	Recognizes patterns in numbers that are not in linear formation.		•	•	•						31
Mathematics	Fundamentals of the Decimal System: Number Concepts: 3	The Thousand Chain and Arrows	Counts from 1 to 1,000 by units, recognizing the printed numerals on the Number Arrows, using the 1,000 Chain.	ž	•	•	R						32
Mathematics	Fundamentals of the Decimal System: Number Concepts: 3	Counting the Bead Chains by Units	Counts linearly by units, using the Bead Chains of the squares of the numbers 2, 3, 4, 5, 6, 7, 8, 9, and 10.		•	•	•						33
Mathematics	Fundamentals of the Decimal System: Number Concepts: 3	Skip Counting by 2's, 5's, and 10's using the Bead Chains and Number Rolls	Skip counts by 2's, 5's, and 10's using the Bead Chains.		•	•	R						34
Mathematics	Fundamentals of the Decimal System: Number Concepts: 3	Skip Counting by 3's, 4's, and 6's using the Bead Chains and Number Rolls	Skip counts by 3's, 4's, and 6's using the Bead Chains.		•	•	•	R					35

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Fundamentals of the Decimal System: Number Concepts: 3	Skip Counting by 7's, 8's, and 9's using the Bead Chains and Number Rolls	Skip counts by 7's, 8's, and 9's using the Bead Chains.	•	•	•	R					36
Mathematics	Decimal System: Introduction to Place Value: 3	Numeral Cards	Recognizes and identify written numbers up to 999,999,999.				Ι	•				37
Mathematics	Decimal System: Introduction to Place Value: 3	Numeral Cards	Recognizes and identify written numbers up to 999,999,999,999.					•	•			38
Mathematics	Decimal System: Introduction to Place Value: 3	Numeral Cards	Recognizes and identify quantities up to 999,999,999,999,999.	5					Ι	•		39
Mathematics	Math Operations: Static Addition: 1	Red and Blue Number Rods	Adds two single-digit numbers, where the sum is less than 11, using the Red and Blue Number Rods.	• •	•							40
Mathematics	Math Operations: Static Addition: 1	Golden Bead Materials	Adds quantities of up to four- digit addends, without exchanging, using the Golden Beads.	•	•							41
Mathematics	Math Operations: Static Addition: 1	Golden Bead Materials	Adds quantities of up to four- digit addends, with exchanging, using the Golden Beads.	•	•	•	R					42
Mathematics	Math Operations: Static Addition: 2	Stamp Game	Adds quantities of up to four- digit addends, without exchanging, using the Stamp Game.	•	•	•	R					43
Mathematics	Math Operations: Dynamic Addition: 2	Stamp Game	Adds quantities of up to four- digit addends, with exchanging, using the Stamp Game.			•	R					44
Mathematics	Math Operations: Static Addition: 3	Small Bead Frame	Adds quantities of up to four- digit addends, without exchanging, using the Small Bead Frame.	•	•	•	•					45
Mathematics	Math Operations: Static Addition: 3	Large Bead Frame	Adds quantities of up to four- digit addends, without exchanging, using the Large Bead Frame.	•	•	•	•					46
Mathematics	Math Operations: Dynamic Addition: 3	Dot Board	Adds quantities of up to four- digit addends, with exchanging, using the Dot Board,where the sum is less than 9,999.	•	•	•						47

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Math Operations: Static Addition of Seven-Digit Addends: 1	Large Bead Frame	Adds two seven-digit addends, without exchanging, using the Large Bead Frame.		•	•					48
Mathematics	Math Operations: Dynamic Addition of Seven-Digit Addends: 1	Large Bead Frame	Adds two seven-digit addends, with exchanging, using the Large Bead Frame.		•	•					49
Mathematics	Exercises Leading to the Memorization of Math Facts: Addition: 1	Snake Game	Demonstrates knowledge of addition facts for two addends between 1-10, using the Snake Game.	• •	•	R					50
Mathematics	Exercises Leading to the Memorization of Math Facts: Addition: 2	Colored Bead Bars	Demonstrates knowledge of addition facts for two addends between 1-10, using the Colored Bead Bars.	• •	•	R					51
Mathematics	Exercises Leading to the Memorization of Math Facts: Addition: 3	Addition Strip Board	Demonstrates knowledge of addition facts for two addends, the sum of which is no larger than 10, using the Addition Strip Board.	• •	•						52
Mathematics	Exercises Leading to the Memorization of Math Facts: Addition: 4	Addition Charts	Demonstrates knowledge of addition facts for two addends between 1-10, using the Addition Charts.	• •	•						53
Mathematics	Exercises Leading to the Memorization of Math Facts: Addition: 5	Abstraction - could be demonstrated by using Stamp Game, Golden Beads and the like, or pencil and paper	Demonstrates knowledge of addition facts for two addends between 1-10, without manipulatives.		•	•	R				54
Mathematics	Associative and Commutative Properties of Addition	Bead Bars	Using the Bead Bars, demonstrates that, when adding any two numbers, the order of the addends can be changed and the total remains the same $(2 + 4)$ = 6 or 4 + 2 = 6).	••	•	•	R	R	R		55
Mathematics	Missing Addends: 1	Bead Bars	Solves missing addends in addition problems involving two addends between 1 and 10, using the Bead Bars.		•	•	R				56
Mathematics	Missing Addends: 2	Abstraction: Flash Cards or similar	Demonstrates ability to solve missing addends in addition problems involving two addends between 1 and 10, without manipulatives, using only Flash Cards.		•	•	R				57

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	The Passage to Abstraction: Addition: 1	Golden Beads, Stamp Game, Bead Frames	Demonstrates ability to solve addition problems with two addends totaling up to 9,999, without the use of concrete manipulative materials.			•	•				58
Mathematics	The Passage to Abstraction: Addition: 2	Abstraction: Pencil and paper	Demonstrates ability to solve addition problems with multiple addends up to 9,999,999, without the use of concrete manipulative materials.			•	•				59
Mathematics	Math Operations: Static Subtraction: 1	Golden Bead Materials	Subtracts two four-digit numbers without exchanging, using the Golden Beads .	••							60
Mathematics	Math Operations: Static Subtraction: 2	Stamp Game	Subtracts two four-digit numbers without exchanging, using the Stamp Game.	, • •	•						61
Mathematics	Math Operations: Static Subtraction: 3	Small Bead Frame	Subtracts two four-digit numbers without exchanging, using the Small Bead Frame.	,	•	•					62
Mathematics	Math Operations: Dynamic Subtraction: 1	Golden Bead Materials	Subtracts two four-digit numbers with exchanging, using the Golden Beads.	, • •	•	R					63
Mathematics	Math Operations: Dynamic Subtraction: 2	Stamp Game	Subtracts two four-digit numbers with exchanging, using the Stamp Game.	,	•	•					64
Mathematics	Math Operations: Dynamic Subtraction: 3	Small Bead Frame	Subtracts two four-digit numbers with exchanging, using the Small Bead Frame.	,	•	•					65
Mathematics	Math Operations: Static Subtraction of One Seven-Digit Quantity from Another: 1	Golden Bead Materials	Subtracts one seven-digit number from another, without exchanging, using the Golden Beads.		•	•					66
Mathematics	Math Operations: Static Subtraction of One Seven-Digit Quantity from Another: 2	Large Bead Frame	Subtracts one seven-digit number from another, without exchanging, using the Large Bead Frame.		•	•					67

Area	Strand	Lesson/Material	Curriculum Element	Age	3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Math Operations: Dynamic Subtraction of One Seven-Digit Quantity from Another: 1	Large Bead Frame	Subtracts one seven-digit number from another, with exchanging, using the Large Bead Frame.				•	•					68
Mathematics	Exercises Leading to the Memorization of Math Facts: Subtraction: 1	Subtraction Strip Board	Demonstrates knowledge of subtraction facts for two quantities between 1-18, using the Subtraction Strip Board.	e	•	•	•	R					69
Mathematics	Exercises Leading to the Memorization of Math Facts: Subtraction: 2	Subtraction Charts	Demonstrates knowledge of subtraction facts for two quantities between 1-18, using the Subtraction Charts.	е	•	•	•	R					70
Mathematics	Exercises Leading to the Memorization of Math Facts: Subtraction: 3	Negative Snake Game	Demonstrates knowledge of subtraction facts for two quantities between 1-18, using the Negative Snake Game.	e			•	•					71
Mathematics	Exercises Leading to the Memorization of Math Facts: Subtraction: 4	Bead Bars	Determines the missing factor in a simple subtraction equation that is written, using the Bead Bars: 15 = 8.	t			•	•					72
Mathematics	Exercises Leading to the Memorization of Math Facts: Subtraction: 5	Abstraction - could be demonstrated by using Stamp Game, Golden Beads and the like, or pencil and paper	Identifies the missing factor in a simple subtraction equation abstractly.				•	•					73
Mathematics	The Passage To Abstraction: Subtraction: 1	Abstraction - could be demonstrated by using Stamp Game, Golden Beads and the like, or pencil and paper	Solves a written subtraction problem without the use of any concrete manipulative learning materials - numbers up to four digits.					•	•				74
Mathematics	The Passage To Abstraction: Subtraction: 2	Abstraction: Pencil and Paper	Solves a written subtraction problem without the use of any concrete manipulative learning materials - numbers up to seven digits.					•	•				75
Mathematics	Math Operations: Multiplication: 1	Golden Bead Materials	Multiplies a quantity using a single-digit multiplier, using the Golden Beads.		•	•	R						76
Mathematics	Math Operations: Multiplication: 2	Stamp Game	Multiplies a quantity using a single-digit multiplier, using the Stamp Game.		•	•	•	•					77

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st 2	2nd	3rd	4th	5th	6th	ID #
Mathematics	Math Operations: Multiplication: 3	Small Bead Frame	Multiplies a quantity using a single-digit multiplier, using the Small Bead Frame.		•	•					78
Mathematics	Math Operations: Multiplication: 4	Large Bead Frame	Multiplies a quantity using a single-digit multiplier using the Large Bead Frame.		•	•					79
Mathematics	Math Operations: Multiplication: 5	Golden Bead Materials	Multiplies a seven-digit number by a single-digit multiplier, using the Golden Beads.		•	R					80
Mathematics	Math Operations: Multiplication: 6	Peg Board	Multiplies a seven-digit number by a single-digit multiplier, using the Peg Board.			•	•				81
Mathematics	Math Operations: Multiplication: 7	Multiplication Checkerboard	Multiplies a seven-digit number by a single-digit multiplier, using the Multiplication Checkerboard.			•	•	R			82
Mathematics	Math Operations: Multiplication: 8	Flat Bead Frame	Multiplies a seven-digit number by a single-digit multiplier using the Flat Bead Frame.			•	•	R			83
Mathematics	Math Operations: Multiplication: 9	Golden Bead Materials	Multiplies a seven-digit number by a two-digit multiplier, using the Golden Beads.			•	R				84
Mathematics	Math Operations: Multiplication: 10	Stamp Game	Multiplies a seven-digit number by a two-digit multiplier, using the Stamp Game.				•	R			85
Mathematics	Math Operations: Multiplication: 11	Peg Board	Multiplies a seven-digit number by a two-digit multiplier, using the Peg Board.				•	R			86
Mathematics	Math Operations: Multiplication: 12	Large Bead Frame	Multiplies a seven-digit number by a two-digit multiplier, using the Large Bead Frame.				•	R			87
Mathematics	Math Operations: Multiplication: 13	Multiplication Checkerboard	Multiplies a seven-digit number by a two-digit multiplier, using the Multiplication Checkerboard.				•	R			88
Mathematics	Math Operations: Multiplication: 14	Flat Bead Frame	Multiplies a seven-digit number by a two-digit multiplier, using the Flat Bead Frame.				•	R			89
Mathematics	Math Operations: Multiplication: 15	Junior Bank Game	Demonstrates a knowledge of multiplication using the Junior Bank Game.				•	•	R		90

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Math Operations: Multiplication: 16	Abstraction - could be demonstrated by using Stamp Game, Bead Frames, Peg Board, Checkerboard, and the like	Solves a written multiplication problem using multi-digit multipliers, with the use of concrete materials.				•	R			91
Mathematics	Exercises Leading to the Memorization of Math Facts: Multiplication: 1	Bead Chains	Demonstrates a knowledge of multiplication facts using the Bead Chains.		•	•	•	R			92
Mathematics	Exercises Leading to the Memorization of Math Facts: Multiplication: 2	Bead Bars	Demonstrates a knowledge of multiplication facts using the Bead Bars.		•	•	•	R			93
Mathematics	Exercises Leading to the Memorization of Math Facts: Multiplication: 3	Multiplication Charts	Demonstrates a knowledge of multiplication facts using the Multiplication Charts.			•	•	R			94
Mathematics	Exercises Leading to the Memorization of Math Facts: Multiplication: 4	Decanomial	Demonstrates a knowledge of multiplication facts by working with the Decanomial.			•	•	R			95
Mathematics	Exercises Leading to the Memorization of Math Facts: Multiplication: 1	Bead Bars	Identifies the missing factor in a simple equation using the Bead Bars.				•	R			96
Mathematics	Exercises Leading to the Memorization of Math Facts: Multiplication: 2	Card Sets	Identifies the missing factor in a simple equation using Card Sets.				•	R			97
Mathematics	The Passage to Abstraction: Multiplication: 1	Abstraction: Pencil and Paper	Solves a written multiplication problem by multiplying numbers up to four digits by a single-digit multiplier.				•	•			98
Mathematics	The Passage to Abstraction: Multiplication: 2	Abstraction: Pencil and Paper	Solves a written multiplication problem by multiplying numbers up to seven digits by a single-digit multiplier.	t			•	•			99
Mathematics	The Passage to Abstraction: Multiplication: 3	Abstraction: Pencil and Paper	Solves a written multiplication problem by multiplying numbers up to seven digits by a two-digit multiplier.				•	•	•		100
Mathematics	The Passage to Abstraction: Multiplication: 4	Abstraction: Pencil and Paper	Solves a written multiplication problem by multiplying large quantities by multi-digit multipliers.				•	•	•	R	101

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Math Operations: Division	Golden Bead Materials	Divides a four-digit number by a single- digit divisor, with no remainder, using the Golden Beads.		•	R					102
Mathematics	Math Operations: Division	Stamp Game	Divides a four-digit number by a single digit-divisor, with no remainder, using the Stamp Game.		•	•					103
Mathematics	Math Operations: Division	Golden Bead Materials	Divides a four-digit number by a single- digit divisor, with a remainder, using the Golden Beads.		•	•					104
Mathematics	Math Operations: Division	Stamp Game	Divides a four-digit number by a single- digit divisor, with a remainder, using the Stamp Game.		•	•	R				105
Mathematics	Math Operations: Division	Peg Board	Divides a four-digit number by a single- digit divisor, with a remainder, using the Peg Board.			•	•	R			106
Mathematics	Math Operations: Division	Test Tubes/ Rack & Tubes	Divides a four-digit number by a single- digit divisor, with a remainder, using the Long Division Test Tube material.			•	•	R			107
Mathematics	Math Operations: Division	Stamp Game	Divides a seven-digit number by single- digit divisor, with or without a remainder, using the Stamp Game.	a		•	•	R			108
Mathematics	Math Operations: Division	Peg Board	Divides a seven-digit number by single- digit divisor, with a remainder, using the Peg Board.	a		•	•	R			109
Mathematics	Math Operations: Division	Test Tubes/ Rack & Tubes	Divides a seven-digit number by single- digit divisor, with a remainder, using the Long Division Test Tube material.	a		•	•	R			110
Mathematics	Math Operations: Division	Stamp Game	Divides a seven-digit number by a two-digit divisor, with or without a remainder, using the Stamp Game.	a		•	•	R			111
Mathematics	Math Operations: Division	Peg Board	Divides a seven-digit number by two-digit divisor, with or without a remainder, using the Peg Board	a		•	•	R			112
Mathematics	Math Operations: Division	Test Tubes/ Rack & Tubes	Divides a seven-digit number by a two-digit divisor, with a remainder, using the Long Division Test Tube material.	a			•	•	R		113
Mathematics	Math Operations: Division	Stamp Game	Divides a seven-digit number by a three- or four-digit divisor, with or without a remainder, using the Stamp Game.	a			•	•	R		114

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG 1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Math Operations: Division	Peg Board	Divides a seven-digit number by a three- or four-digit divisor, with or without a remainder, using the Peg Board.	L			•	•	R		115
Mathematics	Math Operations: Division	Test Tubes/ Rack & Tubes	Divides a seven-digit number by a three- or four-digit divisor, with a remainder, using the Long Division Test Tube materials.	ι			•	•	•	R	116
Mathematics	Exercises Leading to the Memorization of Math Facts: Division: 1	Bead Bars	Demonstrates a knowledge of division facts with divisors of 1 -10 using the Bead Bars.			٠	•	•	R	R	117
Mathematics	Exercises Leading to the Memorization of Math Facts: Division: 2	Division Board Charts	Demonstrates a knowledge of division facts with divisors of 1-9 using the Division Board Charts.				•	•	R	R	118
Mathematics	Exercises Leading to the Memorization of Math Facts: Division: 3	Unit Division Board	Demonstrates a knowledge of division facts with divisors of 1-9 using the Unit Division Board.				•	•	R	R	119
Mathematics	Exercises Leading to the Memorization of Math Facts: Division: 4	Card Sets	Identifies the missing factor in a simple equation using Card Sets.				•	•	•	R	120
Mathematics	The Passage to Abstraction: Division: 1	Abstraction: Pencil and Paper	Solves a written division problem with numbers up to four digits, divided by a single-digit divisor, with no remainder.				•	•	R		121
Mathematics	The Passage to Abstraction: Division: 2	Abstraction: Pencil and Paper	Solves a written division problem with numbers up to four digits divided by a single-digit divisor, with a remainder.				•	•	R		122
Mathematics	The Passage to Abstraction: Division: 3	Abstraction: Pencil and Paper	Solves a written division problem with numbers up to seven digits, divided by a single-digit divisor, with or without a remainder.				•	•	R		123
Mathematics	The Passage to Abstraction: Division: 4	Abstraction: Pencil and Paper	Solves a written division problem with numbers up to seven digits divided by a two-digit divisor, with or without a remainder.				•	•	•	R	124
Mathematics	The Passage to Abstraction: Division: 5	Abstraction: Pencil and Paper	Solves a written division problem with numbers up to seven digits divided by a three- or four-digit divisor, with or without a remainder.				•	•	•	R	125
Mathematics	Exercises Leading to the Understanding of Multiples: 1	Bead Chains	Recognizes common numerals between two different bead chains and is able to develop a definition for multiples.				•	•	R		126

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st 2	2nd 3r	d 4th	5th	6th	ID #
Mathematics	Exercises Leading to the Understanding of Multiples: 2	Peg Board	Recognizes common numerals after constructing multiples on the Peg Board.			•	•	R		127
Mathematics	Exercises Leading to the Understanding of Multiples: 3	Peg Board	Constructs multiples on the Peg Board and identifies at which number they meet.			•	•	R		128
Mathematics	Exercises Leading to the Understanding of Multiples: 4	Multiples Chart Bead Stair	Identifies common multiples on the Multiples Chart, using the colored pencils, which coordinate with the colors of the Bead Stair.				•	R		129
Mathematics	Exercises Leading to the Understanding of Multiples: 5	Peg Board, Multiples Chart	Identifies and describes what a multiple is and what the LCM (lowest common multiple) is when comparing numerals.			•	•	R		130
Mathematics	Exercises Leading to the Understanding of Factors: 1	Peg Board	Explores all the ways to make two different numerals.				•	R		131
Mathematics	Exercises Leading to the Understanding of Factors: 1	Peg Board	Explores all the ways to make two different numerals and can identify the GCF (greatest common factor) of both numerals.			•	•	R		132
Mathematics	Exercises Leading to the Understanding of Prime Numbers: 1	Sieve of Eratosthenes	Recognizes and identifies the Prime Numbers below 100 using the Sieve of Eratosthenes.			•	•	•	•	133
Mathematics	Exercises Leading to the Understanding of Prime Numbers: 2	Abstraction: Pencil and Paper	Creates a factor tree and identifies the prime factors within the factor tree.	5		•	•	•	•	134
Mathematics	Exercises Leading to the Understanding of Prime Numbers: 3	Abstraction: Pencil and Paper	Creates a factor tree, identifies the prime factors within the factor tree, and writes these factors in exponential notation.	2		•	•	•	•	135
Mathematics	Exercises Leading to the Understanding of Prime Numbers: 4	Abstraction: Pencil and Paper	Creates a factor tree, identifies the prime factors within the factor tree, and uses these to identify the LCM of two numerals.	2		•	•	•	R	136
Mathematics	Divisibility	Abstraction: Pencil and Paper	Works with and understands the rules of divisibility for 2's, 5's, and 10's.	1		•	•	•	R	137
Mathematics	Divisibility	Abstraction: Pencil and Paper	Works with and understands the rules of divisibility for 4's, 3's, 6's, and 9's.				•	•	R	138

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Exercises Leading to the Understanding of Fractions: 1	Fraction Circles and Symbols	Recognizes fractions using Fraction Circles and Symbols.	•	•	•	R	R				139
Mathematics	Exercises Leading to the Understanding of Fractions: 2	Concrete materials such as pizzas, chocolate bars, and the like	Recognizes fractions using concrete materials other than the Fraction Circles and Symbols.	•	•	•	•	R				140
Mathematics	Exercises Leading to the Understanding of Fractions: 3	Fraction Circles	Recognizes equivalent fractions equaling one whole, using the Fraction Circles.	•	•	•	R	R				141
Mathematics	Exercises Leading to the Understanding of Fractions: 4	Fraction Circle Box	Recognizes equivalent fractions equaling one whole, using the labeled fraction pieces in the Fraction Circle Box.			•	•	•	R			142
Mathematics	Exercises Leading to the Understanding of Fractions: 5	Fraction Circle Box	Recognizes equivalent fractions equaling different amounts, using the labeled fraction pieces in the Fraction Circle Box.			•	•	•	R			143
Mathematics	Exercises Leading to the Understanding of Fractions: 6	Fraction Circle Box and Task Cards	Recognizes, matches, and labels equivalent fractions using concrete material, while following commands from Task Cards.	5		•	•	•	R			144
Mathematics	Exercises Leading to the Understanding of Fractions: 7	Fraction Circle Box/Pencil and Paper	Identifies different ways to write the numeral 1 in fraction format, using the fraction pieces in the Fraction Circle Box.					•	•	R		145
Mathematics	Exercises Leading to the Understanding of Fractions: 8	Fraction Circle Box/Pencil and Paper	Identifies the numerator and denominator of a fraction.			•	•	R	R			146
Mathematics	Exercises Leading to the Understanding of Fractions: 9	Abstraction: Pencil and paper & Mortenson Fraction Materials <sup>™</sup> , if available	Identifies that the numeral 1, written in fraction format (the Multiplicative Identity), is used to form equivalent fractions abstractly.					•	•	R	R	147
Mathematics	Exercises Leading to the Understanding of Fractions: 10	Abstraction: Pencil and Paper	Formulates the rule for finding equivalencies abstractly and is able to find equivalent fractions abstractly.					•	•	R	R	148
Mathematics	Exercises Leading to the Understanding of Fractions: 11	Abstraction: Pencil and Paper & Mortenson Fraction Materials <sup>™</sup> , if available	Identifies that equivalent fractions can be reduced using the Multiplicative Identity.	S				•	•	R	R	149
Mathematics	Exercises Leading to the Understanding of Fractions: 12	Abstraction: Pencil and Paper	Formulates the rule for reducing fractions abstractly and is able to reduce fractions abstractly.					•	•	R	R	150

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Exercises Leading to the Understanding of Fractions: 13	Abstraction: Pencil and Paper	Identifies that the Multiplicative Identity needed to reduce a fraction is a common factor of the numerator and denominator of a fraction.				•	•	R	R	151
Mathematics	Exercises Leading to the Understanding of Fractions: 14	Abstraction Pencil and Paper	Identifies that the Multiplicative Identity needed to reduce a fraction should be the GCF of the numerator and denominator of a fraction, in order to reduce the fraction completely.				•	•	R	R	152
Mathematics	Exercises Leading to the Understanding of Fractions: 15	Abstraction: Pencil and Paper & Fraction Circle Box	Identifies that when the numerator is larger than the denominator in a fraction,the denominator can divide into the numerator to simplify the number: 12/6=2 (understanding that the fraction bar means to divide).				•	•	•	R	153
Mathematics	Exercises Leading to the Understanding of Fractions: 16	Abstraction: Pencil and Paper	Identifies that the remainder in a division problem can be expressed as a fraction, with the remainder serving as the numerator and the divisor as the denominator (understanding that the fraction bar means to divide).				•	•	•	R	154
Mathematics	Exercises Leading to the Understanding of Fractions: 17	Fraction Number Lines	Identifies and correctly places fraction labels onto a Number Line.				•	•	•	R	155
Mathematics	Fraction Operations: Common Denominator: 1	Fraction Circles	Adds fractions that share a common denominator, using the Fraction Circles.	• •	•	•					156
Mathematics	Fraction Operations: Common Denominator: 2	Fraction Circle Box	Adds fractions that share a common denominator, using the fraction pieces from the Fraction Circle Box.		•	•	R				157
Mathematics	Fraction Operations: Common Denominator: 3	Abstraction: Pencil and Paper	Adds fractions that share a common denominator abstractly.				•	R			158
Mathematics	Fraction Operations: Common Denominator: 4	Fraction Circles	Subtracts fractions that share a common denominator, using the Fraction Circles.		•	•	R				159
Mathematics	Fraction Operations: Common Denominator: 5	Fraction Circle Box	Subtracts fractions that share a common denominator, using the fraction pieces from the Fraction Circle Box.			•	R				160

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Fraction Operations: Common Denominator: 6	Abstraction: Pencil and Paper	Subtracts fractions that share a common denominator abstractly.				•	R			161
Mathematics	Fraction Operations: Unlike Denominator: 1	Fraction Circle Box	Adds fractions that have unlike denominators, using the fraction pieces from the Fraction Circle Box.				•	•	R		162
Mathematics	Fraction Operations: Unlike Denominator: 2	Abstraction: Pencil and Paper	Adds fractions that have unlike denominators, finding the LCM of the denominators and working abstractly.	5			•	•	R		163
Mathematics	Fraction Operations: Unlike Denominator: 3	Abstraction: Pencil and Paper	Adds fractions that have unlike denominators, finding the LCM of the denominators AND reducing the answer into the simplest terms.				•	•	R		164
Mathematics	Fraction Operations: Unlike Denominator: 4	Fraction Circle Box	Subtracts fractions that have unlike denominators, using the fraction pieces from the Fraction Circle Box.				•	•	R		165
Mathematics	Fraction Operations: Unlike Denominator: 5	Abstraction: Pencil and Paper	Subtracts fractions that have unlike denominators, finding the LCM of the denominators and working abstractly.				•	•	R		166
Mathematics	Fraction Operations: Unlike Denominator: 6	Abstraction: Pencil and Paper	Subtracts fractions that have unlike denominators, finding the LCM of the denominators and reducing the answer into the simplest terms.				•	•	R		167
Mathematics	Fraction Operations: Multiplication: 1	Fraction Circle Box	Multiplies simple fractions by a whole number, using the fraction pieces in the Fraction Circle Box.				•	•	•	R	168
Mathematics	Fraction Operations: Multiplication: 2	Abstraction: Pencil and Paper	Multiplies simple fractions by a whole number by converting the whole number to a fraction and working abstractly.				•	•	•	R	169
Mathematics	Fraction Operations: Multiplication: 3	Abstraction: Pencil and Paper & Mortenson Fraction Materials <sup>™</sup> , if available	Multiplies two simple fractions understanding that "of" means multiplication.				•	•	•	R	170
Mathematics	Fraction Operations: Multiplication: 4	Abstraction: Pencil and Paper	Multiplies two simple fractions abstractly and reduces the answer into simplest terms.						•	•	171
Mathematics	Fraction Operations: Multiplication: 5	Abstraction: Pencil and Paper	Multiplies two simple fractions abstractly and cross-factors to simplify the process.						•	•	172

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	lst 2	2nd 3rd	4th	5th	6th	ID #
Mathematics	Fraction Operations: Division: 1	Fraction Circle Box & Skittles	Divides simple fractions by a whole number, using the fraction pieces in the Fraction Circle Box and Skittles.						•	•	173
Mathematics	Fraction Operations: Division: 2	Abstraction: Pencil and Paper	Divides simple fractions by a whole number, converting the whole number to a fraction and working abstractly.						•	•	174
Mathematics	Fraction Operations: Division: 3	Fraction Circle Box & Fraction Skittles	Divides two simple fractions, using the Fraction Pieces and Fraction Skittles, understanding that the answer will be what one whole person gets.						•	•	175
Mathematics	Fraction Operations: Division: 4	Abstraction: Pencil and Paper	Divides two simple fractions and recognizes that there is a pattern that involves multiplying by the inverse.						•	•	176
Mathematics	Fraction Operations: Division: 5	Abstraction: Pencil and Paper	Divides two simple fractions abstractly by multiplying by the inverse and cross- factoring as needed.						•	•	177
Mathematics	Fraction Operations: Mixed Number: 1	Fraction Circle Box	Adds two mixed-number fractions (with like or unlike denominators), using the fractions from the Fraction Circle Box.	:					•	•	178
Mathematics	Fraction Operations: Mixed Number: 2	Abstraction: Pencil and Paper & Fraction Circle Box	Adds two mixed-number fractions (with like or unlike denominators), using the fractions from the Fraction Circle Box, and changes the resulting sum from an improper fraction to a mixed number if necessary.	: )					•	•	179
Mathematics	Fraction Operations: Mixed Number: 3	Abstraction: Pencil and Paper	Adds two mixed-number fractions (with like or unlike denominators) abstractly and changes the resulting sum from an improper fraction to a mixed number if necessary.						•	•	180
Mathematics	Fraction Operations: Mixed Number: 4	Abstraction: Pencil and Paper & Fraction Circle Box	Renames the whole-number minuend and then subtracts two simple fractions abstractly.						•	•	181
Mathematics	Fraction Operations: Mixed Number: 5	Abstraction: Pencil and Paper	Subtracts a simple fraction from a mixed-number fraction (with like or unlike denominators) abstractly.	ι					•	•	182
Mathematics	Fraction Operations: Mixed Number: 6	Abstraction: Pencil and Paper	Subtracts two mixed-number fractions (with like or unlike denominators).						•	•	183

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st 2	2nd 3rd	4th	5th	6th	ID #
Mathematics	Fraction Operations: Mixed Number: 7	Abstraction: Pencil and Paper	Multiplies a mixed-number fraction by a fraction abstractly.					•	٠	184
Mathematics	Fraction Operations: Mixed Number: 8	Abstraction: Pencil and Paper	Multiplies two mixed-number fractions abstractly.					•	•	185
Mathematics	Fraction Operations: Mixed Number: 9	Abstraction: Pencil and Paper	Divides a mixed-number fraction by a fraction abstractly.					•	•	186
Mathematics	Fraction Operations: Mixed Number: 10	Abstraction: Pencil and Paper	Divides two mixed-number fractions abstractly.					•	•	187
Mathematics	Decimal Fractions Concepts: Nomenclature & Recognition	Decimal Fraction Box, Decimal Fraction Board, 1/10th Fraction pieces, Montessori Centesimal Circle, Whole # Cards from Bank Game	Is able to recognize Numeral Cards and place specific quantities on Decimal Fraction Hierarchy Board when teacher guide or fellow student forms numerals up to 999,999.			•	•	•	R	188
Mathematics	Decimal Fractions Concepts: Nomenclature & Recognition	Abstraction: Pencil and Paper & Numerals and Hierarchy Board	Is able to write a quantity as both a fraction and decimal fraction when read a quantity, such as: one-hundredth and so on.			•	•	•	R	189
Mathematics	Decimal Fractions Concepts: Nomenclature & Recognition	Abstraction: Pencil and Paper & Numerals and Hierarchy Board	Is able to write numerals containing both whole number and decimal fractions in expanded notation, both in words and using numerals.	5		•	•	•	R	190
Mathematics	Decimal Fractions Concepts: Nomenclature & Recognition	Abstraction: Pencil and Paper	Is able to record correct numeral when given number in exponential format, such as: 1/10 to second power and so on.	)		•	•	•	R	191
Mathematics	Decimal Fractions Concepts: Nomenclature & Recognition	Hierarchy Board, Numeral Cards, and Didactic Quantities	Is able to associate from observing quantity on Hierarchy Board the correct numeral and places correct Numeral Cards with Beads/Cubes quantity.			•	•	•	R	192
Mathematics	Decimal Fractions Concepts: Nomenclature & Recompition	Hierarchy Board, Numeral Cards, and Didactic Quantities	Is able to form own decimal fraction numerals, lays out quantity on Hierarchy Board, and reads numeral correctly.			•	•	•	R	193

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KC	f 1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Decimal Fractions Concepts: Nomenclature & Recognition	Hierarchy Board, Numeral Cards, and Didactic Quantities	Is able to identify decimal fraction numeral given by another person, lays out quantity on Hierarchy Board, and reads numeral correctly.	r			•	•	•	R	194
Mathematics	Decimal Fractions Concepts: Decimal Fraction to Vulgar Fraction	Abstract: Task Cards with Written Decimal Fractions, Progressing from Tenths through Millionths	Is able to look at a written decimal fraction numeral and change into a vulgar fraction.				•	•	•	R	195
Mathematics	Decimal Fractions Concepts: Vulgar Fraction to Decimal Fraction	Abstract: Task Cards with Written Vulgar Fractions, Progressing from Tenths through Millionths	Is able to look at a written vulgar fraction quantity and convert into a decimal fraction numeral.				•	•	•	R	196
Mathematics	Decimal Fraction Concepts: Rounding	Hierarchy Board, Task Cards, Abstract Pencil and Paper	Is able to round decimal fractions to the nearer one (whole number) using the Hierarchy Board.				•	•	•	•	197
Mathematics	Decimal Fraction Concepts: Rounding	Abstraction: Pencil and Paper	Is able to round decimal fractions to the nearer one without using the Hierarchy Board.						•	•	198
Mathematics	Decimal Fraction Concepts: Rounding	Abstraction: Pencil and Paper	Is able to round numbers, including decimal fraction place values to the nearer tenth and hundredth.						•	•	199
Mathematics	Decimal Fraction Concepts: Rounding	Abstraction: Pencil and Paper	Is able to round numbers, including decimal fraction place values to the nearer thousandth, ten thousandth, and hundred thousandth.						•	•	200
Mathematics	Decimal Fraction Concepts: Rounding	Abstraction: Pencil and Paper	Is able to round numbers, including decimal fraction place values, to the nearer millionth.						•	•	201
Mathematics	Decimal Fraction Operations: Addition: 1	Hierarchy Board, Numeral Cards and Didactic Quantities	Is able to place quantities on Hierarchy Board, add, and record sum.				•	•	•		202
Mathematics	Decimal Fraction Operations: Addition: 2	Abstraction: Pencil and Paper	Is able to add numbers containing decimal fractions abstractly (both static and dynamic addition).	5			•	•	•		203
Mathematics	Decimal Fraction Operations: Subtraction: 1	Hierarchy Board, Numeral Cards and Didactic Quantities	Is able to place quantities on Hierarchy Board, subtract, and record the difference.				•	•	•		204

	Montes	so <del>r</del> i Foundat	ion Curriculum Scop	e and Sequ	uence	: Ag	<b>ze</b> s	3 to	<b>)</b> 12	2
	( \	Commonly, by the e will be able to demo	nd of the span of age or grade nstrate the following skills, kno	levels indicated l wledge, and/or	below, st understa	udent nding	ts g:			
Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st 2nd	3rd	4th	5th	6th	ID #
Mathematics	Decimal Fraction Operations: Subtraction: 2	Abstraction: Pencil and Paper	Is able to subtract numbers containing decimal fractions abstractly (both static and dynamic subtraction).			•	•	•		205
Mathematics	Decimal Fraction Operations: Multiplication: 1	Hierarchy Board, Numeral Cards and Didactic Quantities	Is able to recognize the commutative property of multiplication when multiplying quantities on the Hierarchy Board, such as: 10x0.2 and 0.2x10.			•	•	•	R	206
Mathematics	Decimal Fraction Operations: Multiplication: 1	Hierarchy Board, Numeral Cards and Didactic Quantities	Is able to multiply decimal fraction quantities by whole numbers.			•	•	R		207
Mathematics	Decimal Fraction Operations: Multiplication: 2	Abstraction: Pencil and Paper	Is able to multiply numbers with a decimal fraction multiplicand and whole number multiplier abstractly.			•	•	•	R	208
Mathematics	Decimal Fraction Operations: Multiplication: 3	Decimal Fraction Checkerboard	Is able to use the Decimal Fraction Checkerboard to multiply by a multiplier that has a value in tenths.					•	•	209
Mathematics	Decimal Fraction Operations: Multiplication: 3	Decimal Fraction Checkerboard	Is able to use the Decimal Fraction Checkerboard to multiply by a multiplier that has a value in hundredths.					•	•	210
Mathematics	Decimal Fraction Operations: Multiplication: 3	Decimal Fraction Checkerboard	Is able to use the Decimal Fraction Checkerboard to multiply by a multiplier that has a value that includes a whole number and decimal fraction.					•	•	211
Mathematics	Decimal Fraction Operations: Multiplication	Abstraction: Pencil and Paper	Is able to multiply any number by a decimal fraction or mixed- number decimal-fraction multiplier abstractly.	7				•	•	212
Mathematics	Decimal Fraction Operations: Division: 1	Hierarchy Board, Numeral Cards, Didactic Quantities, and Skittles	Is able to use the Hierarchy Board and materials to divide a decimal fraction dividend by a single-digit whole-number divisor.						•	213
Mathematics	Decimal Fraction Operations: Division: 2	Hierarchy Board, Numeral Cards, Didactic Quantities, and Skittles	Is able to use the Hierarchy Board and materials to divide a decimal fraction dividend by a double-digit whole-number divisor.						•	214
Mathematics	Decimal Fraction Operations: Division: 3	Abstraction: Pencil and Paper	Is able to divide a decimal- fraction number by a whole- number divisor abstractly.						•	215
Mathematics	Decimal Fraction Operations: Division: 4	Hierarchy Board, Numeral Cards, Didactic Quantities, and Skittles	Is able to use the Hierarchy Board and materials to divide a decimal fraction dividend by a decimal-fraction divisor.						•	216

Mathematics Page 19

Copyright 2012 The Montessori Foundation

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 K	G 1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Decimal Fraction Operations: Division: 5	Abstraction: Pencil and Paper	Is able to divide a decimal- fraction number by a decimal- fraction divisor abstractly.							•	217
Mathematics	Ratio Concepts: 1	Abstraction: Pencil and Paper	Is able to understand that a ratio may show a rate and can be written in two ways: either as a fraction or as two numbers separated by a colon and is read with the word 'to.'							•	218
Mathematics	Ratio Concepts: 1	Abstraction: Pencil and Paper	Is able to read a rate and write it in both ratio formats and is able to read the ratio correctly.							•	219
Mathematics	Ratio Concepts: 2	Abstraction: Pencil and Paper	Is able to understand that a ratio may compare to quantities and is able to create this scenario, write the comparison in both ratio formats, and is able to read the ratio.							•	220
Mathematics	Ratio Concepts: 3	Abstraction: Pencil and Paper	Is able to identify equal ratios and find equivalent ratios, multiplying by the Multiplicative Identity.	1 5						•	221
Mathematics	Ratio Concepts: 3	Abstraction: Pencil and Paper	Is able to find equal ratios by dividing by the Multiplicative Identity.							•	222
Mathematics	Cross Products	Abstraction: Pencil and Paper	Is able to ascertain whether or not cardinal number ratios are equivalent by using cross products: a/b=c/d; then ad=bc.							•	223
Mathematics	Cross Products	Abstraction: Pencil and Paper	Is able to ascertain whether ratios containing fractions and/or decimal fractions are equivalent.	3						•	224
Mathematics	Cross Products	Abstraction: Pencil and Paper	Is able to find either the missing numerator or denominator in a sequence of equivalent ratios.							•	225
Mathematics	Proportion	Abstraction: Pencil and Paper	Is able to understand that a proportion is a statement of equality between ratios.							•	226
Mathematics	Proportion	Abstraction: Pencil and Paper	Is able to identify proportions, reads appropriately, and identifies the means and extremes terms.	3						•	227
Mathematics	Proportion	Abstraction: Pencil and Paper	Is able to determine if a proportion is true by using the means extremes property (cross products).							•	228

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st 2	and 3rd	4th	5th	6th	ID #
Mathematics	Proportion	Abstraction: Pencil and Paper	Is able to determine if a proportion, written in fraction terms, is true.						•	229
Mathematics	Proportion	Abstraction: Pencil and Paper	Is able to determine if a proportion, written in decimal-fraction format, is true.						•	230
Mathematics	Proportion	Abstraction: Pencil and Paper	Is able to determine whether a true proportion can be set up, working from a word problem.						•	231
Mathematics	Proportion	Abstraction: Pencil and Paper	Is able to find the unknown terms in a proportion, using the means extremes property.	5					•	232
Mathematics	Proportion	Abstraction: Pencil and Paper	Is able to complete a scale drawing, using knowledge of proportion and the means extremes property.						•	233
Mathematics	Percentages: 1	Abstraction: Pencil and Paper	Understands that a ratio that has a second term of 100 is called a 'percent.'						•	234
Mathematics	Percentages: 1	Abstraction: Pencil and Paper	Expresses ratios in percent terms.						•	235
Mathematics	Percentages: 1	Abstraction: Pencil and Paper	Is able to express commonly used ratios, such as:1/3; 1/4; 4/5; 1/6; 3/8; 3/4; 7/8; 1/10; 1/20; and 1/5 in percent terms.	1					•	236
Mathematics	Percentages: 2	Abstraction: Pencil and Paper	Is able to express a decimal fraction in percent terms.						•	237
Mathematics	Percentages: 2	Abstraction: Pencil and Paper	Is able to express a fraction in both decimal fraction and percent terms.	t					•	238
Mathematics	Percentages: 2	Abstraction: Pencil and Paper	Is able to express a decimal fraction in both ratio and percent terms.						•	239
Mathematics	Percentages: 2	Abstraction: Pencil and Paper	Is able to express a percent as a decimal fraction.						•	240
Mathematics	Working with Money: 1	Coins and Bills Reflecting Specific Currency	Identifies and names units of currency.	• •	•	• R				241

Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12											
		Commonly, by the e will be able to demo	nd of the span of age or grade l onstrate the following skills, kno	evels indicate wledge, and/	d belo or und	w, stuo erstan	lents ding:				
Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 K	G 1st	2nd	3rd 4th	5th	6th ID#		
Mathematics	Working with Money: 1	Coins and Bills Reflecting Specific Currency	Is able to count units of currency.	•	•	•	R		242		
Mathematics	Working with Money: 1	Coins and Bills Reflecting Specific Currency	Is able to make change with money.	• •	•	•	R		243		
Mathematics	Working with Money: 2	Abstraction: Pencil and Paper	Calculates simple interest on a loan or savings account.						• 244		
Mathematics	Working with Money: 2	Abstraction: Pencil and Paper	Converts US currency into a given foreign currency and vice versa.						• 245		
Mathematics	Measurement: Length: 1	Straight Edge with Demarcations in Imperial or Metric Measurements	Is able to recognize units of measure on a straight edge.	• •	•	•	• •	R	246		
Mathematics	Measurement: Length: 1	Straight Edge with Demarcations in Imperial or Metric Measurements	Is able to use a straight edge to determine the length of various objects.			•	• •	•	R 247		
Mathematics	Measurement: Length: 1	Straight Edge with Demarcations in Imperial or Metric Measurements	Is able to round to the nearer unit when using a straight edge to measure various objects.	t			• •	•	• 248		
Mathematics	Measurement: Length: 2	Abstraction: Pencil and Paper and Straight Edge As Needed	Solves word problems relating to measurement of length.				• •	•	• 249		
Mathematics	Measurement: Length: 2	Abstraction: Pencil and Paper	Is able to convert between imperial and metric measurement using a conversion table.						<b>•</b> 250		
Mathematics	Measurement: Weight: 1	Instruments of Measure Used to Determine Weight in Imperial or Metric Units of Measure	Is able to recognize units of measure on Balance Scale or the like.		•	•	• •	•	R 251		
Mathematics	Measurement: Weight: 1	Instruments of Measure Used to Determine Weight in Imperial or Metric Units of Measure	Is able to use a variety of instruments of measure to determine the weight of various objects.			•	• •	•	R 252		
Mathematics	Measurement: Weight: 2	Abstraction: Pencil and Paper and Instrument of Measure as Needed	Solves word problems relating to weight measurement.				• •	•	• 253		
Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
-------------	----------------------------	--	---	----------------	-----	-----	-----	-----	-----	-----	------
Mathematics	Measurement: Weight: 2	Abstraction: Pencil and Paper	Is able to convert between imperial and metric measurement using a conversion table.							•	254
Mathematics	Measurement: Volume: 1	Instruments of Measure used to Determine Volume in Imperial or Metric Units of Measure	Is able to recognize units of measure on containers used to determine volume.			•	•	•	•	•	255
Mathematics	Measurement: Volume: 1	Instruments of Measure used to Determine Volume in Imperial or Metric Units of Measure	Is able to use beakers and containers, used for measuring volume, to determine volume.				•	•	•	•	256
Mathematics	Measurement: Volume: 2	Instruments of Measure used to Determine Volume in Imperial or Metric Units of Measure	Is able to apply knowledge of volume in practical applications, such as cooking, science, and the like.				•	•	•	•	257
Mathematics	Measurement: Volume: 2	Instruments of Measure used to Determine Volume in Imperial or Metric Units of Measure and Abstraction: Pencil and Paper	Solves word problems relating to volumic measurement.						•	•	258
Mathematics	Measurement: Volume: 2	Abstraction: Pencil and Paper	Is able to convert between imperial and metric measurement using a conversion table.							•	259
Mathematics	Measurement: Thermic: 1	Instruments of Measure Used to Determine Thermic Measurement in Imperial or Metric Units of Measure	Is able to recognize units of measure on a thermometer.						•	•	260
Mathematics	Measurement: Thermic: 1	Instruments of Measure Used to Determine Thermic Measurement in Imperial or Metric Units of Measure	Is able to use a thermometer to measure temperature.						•	•	261
Mathematics	Measurement: Thermic: 1	Instruments of Measure Used to Determine Thermic Measurement in Imperial or Metric Units of Measure and Abstraction: Paper and Pencil	Is able to apply knowledge of thermic measurement in practical applications, such as science, cooking, and the like.						•	•	262

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Measurement: Thermic: 2	Instruments of Measure Used to Determine Thermic Measurement in Imperial or Metric Units of Measure and Abstraction: Paper and Pencil	Solves word problems relating to thermic measurement.						•	•	263
Mathematics	Measurement: Thermic: 2	Instruments of Measure Used to Determine Thermic Measurement in Imperial or Metric Units of Measure and Abstraction: Paper and Pencil	Is able to convert between imperial and metric measurement using a conversion table.							•	264
Mathematics	Graphs: 1	Various types of Graphs, Such As: Picture Gaphs, Circle Graphs (Pie Charts), Bar graphs, Line Graphs and Scatter Distributions	Reads graphs and draws conclusions and inferences from the graphically displayed information.		•	•	•	•	•	•	265
Mathematics	Graphs: 2	Various types of Graphs, Such As: Picture Gaphs, Circle Graphs (Pie Charts), Bar graphs, Line Graphs and Scatter Distributions	Prepares various graphs from written data.						•	•	266
Mathematics	Graphs: 3	Pie Charts	Understands and can prepare pie charts (circle graphs) using percents.							•	267
Mathematics	Graphs: 4	Various types of Graphs, Such As: Picture Gaphs, Circle Graphs (Pie Charts), Bar graphs, Line Graphs and Scatter Distributions	Redraws graphs using a different scale.							•	268
Mathematics	Graphs: 5	Data Information, Abstraction: Paper and Pencil, Tables	Is able to use information to tabulate data.							•	269
Mathematics	Graphs: 6	Coordinate Graphs	Understands the values within the quadrants in coordinate graphs.	2			•	•	•	•	270

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Graphs: 6	Coordinate Graphs	Is able to follow coordinate directions to complete a picture made by coordinates.				•	•	•	•	271
Mathematics	Graphs: 6	Coordinate Graphs	Identifies the location of a given ordered pair on a grid.						•	•	272
Mathematics	Graphs: 6	Coordinate Graphs	Is able to identify an ordered pair when given a location on a grid.						•	•	273
Mathematics	Graphs: 6	Coordinate Graphs	Locates points for given coordinates and names the coordinates of a given point in any of the four quadrants.							•	274
Mathematics	Probability	Various Teacher- Made Materials and Preferably a Kit with Dice, Pinners and Didactic Materials	Understands that in mathematics many predications can be made and are determined by data collected in a variety of ways; the lesson difficulties will progress each year.		•	•	•	•	•	•	275
Mathematics	Statistics: 1	Materials that Can Be Used to Show Averages	Is able to find the average between a set of numbers concretely.		•	•	•	R			276
Mathematics	Statistics: 1	Abstraction: Paper and Pencil	Is able to find the average of a set of numbers abstractly.	t			•	•	•	•	277
Mathematics	Statistics: 2	Data Information, Abstraction: Paper and Pencil	Understands the terms: <i>mean, mode, median.</i>						•	•	278
Mathematics	Statistics: 2	Abstraction: Paper and Pencil	Determines the mean for given data.						•	•	279
Mathematics	Statistics: 2	Abstraction: Paper and Pencil	Identifies the mean on a graph.						•	•	280
Mathematics	Statistics: 3	Abstraction: Paper and Pencil	Determines the mode for given data.						•	•	281
Mathematics	Statistics: 3	Abstraction: Paper and Pencil	Identifies the mode on a graph.						•	•	282
Mathematics	Statistics: 4	Abstraction: Pencil and Paper	Determines the median for given data.						•	•	283

	Monte	ssori Foundat	ion Cutticulum Scot	e and Sequ	ence	Ages	3 +0	- 12	
	inionite,	Commonly, by the e will be able to demo	nd of the span of age or grade nstrate the following skills, kno	levels indicated b wledge, and/or u	elow, stu inderstat	idents nding:	5 0		,
Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st 2nd	3rd 4th	5th	6th	ID #
Mathematics	Statistics: 4	Abstraction: Paper and Pencil	Identifies the median on a distribution table.				•	•	284
Mathematics	Statistics: 5	Abstraction: Paper and Pencil	Constructs a frequency table.					•	285
Mathematics	Inequalities: 1	Abstraction: Paper and Pencil	Is familiar with the relationships between simple quantities of equal value: Equal To (=).		•	• •	•	R	286
Mathematics	Inequalities: 1	Abstraction: Paper and Pencil	Is familiar with the relationships between simple quantities where one is greater than the other: Greater Than (>).		•	• •	•	R	287
Mathematics	Inequalities: 1	Abstraction: Paper and Pencil	Is familiar with the relationships between simple quantities where one is less than the other: Less Than (<).		• •	• •	•	R	288
Mathematics	Inequalities: 2	Abstraction: Paper and Pencil	Is familiar and works with equal relationships between quantities involving multiple operations: $3x2=3+3$ .			••	•	R	289
Mathematics	Inequalities: 2	Abstraction: Paper and Pencil	Is familiar and works with relationships between quantities involving multiple operations, where one is greater than the other: 3x4>3+4.			• •	•	R	290
Mathematics	Inequalities: 2	Abstraction: Paper and Pencil	Is familiar and works with relationships between quantities involving multiple operations, where one is less than the other: 2x5<9-5.			• •	•	R	291
Mathematics	Negative Numbers: 1	Negative Snake Game	Is able to work concretely with the Negative Snake Game in working with negative numbers.			• •	•		292
Mathematics	Negative Numbers: 2	Number Line with Positive and Negative Numbers in Numerical Order	Is able to recognize unsigned numbers represent positive numbers and that negative numbers are to the left of zero or the number line.	1			•	•	293
Mathematics	Negative Numbers: 2	Number Line with Positive and Negative Numbers in Numerical Order	Is able to determine that the same count is used when determining the distance for opposite pairs of numbers to zero: both numbers are equidistant to zero (absolute value).	e			•	•	294

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 K	G 1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Negative Numbers: 3	Number Line with Positive and Negative Numbers in Numerical Order and Abstraction: Paper and Pencil	Is able to name additive inverses for positive and negative numbers.						•	•	295
Mathematics	Negative Numbers: 4	Abstraction: Paper and Pencil	Is able to add and subtract positive and negative numbers.						•	•	296
Mathematics	Negative Numbers: 4	Abstraction: Paper and Pencil	Is able to multiply positive and negative numbers.							•	297
Mathematics	Negative Numbers: 5	Abstraction: Paper and Pencil	Is able to name reciprocals for positive and negative numbers.							•	298
Mathematics	Negative Numbers: 5	Abstraction: Paper and Pencil	Is able to divide positive and negative numbers.							•	299
Mathematics	Negative Numbers: 6	Abstraction: Paper and Pencil	Simplifies expressions using two or more operations and positive and negative numbers.							•	300
Mathematics	Negative Numbers: 7	Abstraction: Pencil and Paper	Recognizes how a negative exponent effects the value of a number.							•	301
Mathematics	Negative Numbers: 7	Abstraction: Pencil and Paper	Is able to solve equations that use exponents with positive and negative values.	:						•	302
Mathematics	Squaring of Numbers: 1	Bead Chains/Cabinet	Is able to recognize that any number to the second power makes a square using the Bead Chains.				•	•	R		303
Mathematics	Squaring of Numbers: 1	Bead Bars	Is able to create squares using the Bead Bars.				•	•	R		304
Mathematics	Squaring of Numbers: 2	Peg Board	Is able to create squares of numbers on the Peg Board that have a value greater than 10.				•	•	•	R	305
Mathematics	Squaring of Numbers: 3	Montessori Square Guides and Abstraction: Paper and Pencil	Is able to calculate the square of a binomial using the Montessori Square Guides.	L			•	•	•	•	306
Mathematics	Squaring of Numbers: 4	Abstraction: Paper and Pencil	Is able to calculate the square of a binomial using algebraic nomenclature.	L					•	•	307

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Squaring of Numbers: 4	Abstraction: Paper and Pencil	Is able to calculate the square of a trinomial using algebraic nomenclature.	ı					•	•	308
Mathematics	Cubing of Numbers: 1	Bead Chains/Cabinet	Is able to recognize that any number to the third power makes a cube.				•	•	R		309
Mathematics	Cubing of Numbers: 1	Cubing Material	Is able to recognize that any number to the third power makes a cube using the Cubing Material.				•	•	•	R	310
Mathematics	Cubing of Numbers: 2	Binomial Square Guide, Beads from Bead Cabinet and Abstraction: Paper and Pencil	Is able to calculate the cube of the binomial by using the Binomial Square Guide and Beads from the Bead Cabinet and then analyzing abstractly.	L					•	•	311
Mathematics	Cubing of Numbers: 2	Cubing Material and Abstraction: Paper and Pencil	Is able to build a new cube from an existing cube; for example, 4 cubed to 5 cubed, analyze the work and record the procedure.						•	•	312
Mathematics	Cubing of Numbers: 2	Binomial Cube Guide, Binomial Cube and Algebraic Formula	Is able to move from 4 cubed to 7 cubed; for example, analyzing the work using the algebraic formula.							•	313
Mathematics	Cubing of Numbers: 3	Abstraction: Paper and Pencil	Is able to calculate the Cube of the Binomial abstractly.							•	314
Mathematics	Cubing of Numbers: 3	Abstraction: Paper and Pencil	Is able to calculate the Cube of a Trinomial abstractly.							•	315
Mathematics	Square Roots: 1	Golden Beads	Is able to calculate the square root of a binomial by using the Golden Beads and reading the side of the square.						•	•	316
Mathematics	Square Roots: 1	Peg Board	Is able to read the side of a square to determine the square root when working with the Peg Board.	2					•	•	317
Mathematics	Square Roots: 2	Abstraction: Paper and Pencil	Is able to calculate the square roots of binomials.							•	318
Mathematics	Square Roots: 2	Abstraction: Paper and Pencil	Is able to calculate the square root of trinomials.							•	319
Mathematics	Cube Roots: 1	Cubing Material	Is able to recognize and calculate cube roots from working with the Cubing Material.	2						•	320

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Cube Roots: 2	Abstraction: Paper and Pencil	Is able to calculate the cube root of a binomial.							•	321
Mathematics	Cube Roots: 2	Abstraction: Paper and Pencil	Is able to calculate the cube root of a trinomial.							•	322
Mathematics	Exponents: 1	Power of Two Cube	Is able to recognize that the cube is made from 2 to the 9th power.				•	•	R	R	323
Mathematics	Exponents: 1	Bead Chains/Cabinet	Is able to recognize that the chains are powers of the specified number.	1			•	•	R	R	324
Mathematics	Exponents: 1	Bead Bars	Is able to recognize that the bars can form powers of the specified number.				•	•	R	R	325
Mathematics	Exponents: 2	Abstraction: Paper and Pencil	Is able to evaluate base numbers with positive and negative exponents.						•	•	326
Mathematics	Scientific Notation	Abstraction: Paper and Pencil	Converts large whole numbers to scientific notation.	1						•	327
Mathematics	Scientific Notation	Abstraction: Paper and Pencil	Converts very small decimal fractions to scientific notation.							•	328
Mathematics	Bases: 1	Teacher-Made Materials and Bead Bars	Is able to recognize that numbers can be worked in different bases.	\$					•	•	329
Mathematics	Bases: 1	Teacher-Made Materials and Bead Bars	Is able to count accurately in different bases.						•	•	330
Mathematics	Bases: 2	Teacher-Made Materials and Bead Bars	Is able to add using different bases.							•	331
Mathematics	Bases: 3	Teacher-Made Materials and Bead Bars	Is able to convert from a base to base 10.							•	332
Mathematics	Irrational Numbers	Abstraction: Paper and Pencil	Recognizes and finds the value of irrational numbers such as: $\sqrt{2}$ and $\pi$ .	f						•	333

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 K	G 1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Order of Operations	Abstraction: Paper and Pencil	Solves equations and inequalities containing positive and negative numbers using the order of operations.						•	•	334
Mathematics	Problem Solving	Didactic Materials as Needed and Abstraction: Paper and Pencil	Is able to solve word problems relating to addition patterns.			•	•	•	•	•	335
Mathematics	Problem Solving	Didactic Materials as Needed and Abstraction: Paper and Pencil	Is able to solve word problems relating to multiplication patterns				•	•	•	•	336
Mathematics	Problem Solving	Didactic Materials as Needed and Abstraction: Paper and Pencil	Is able to solve word problems relating to factors, multiples, and primes.				•	•	•	•	337
Mathematics	Problem Solving	Didactic Materials as Needed and Abstraction: Paper and Pencil	Is able to solve word problems relating to divisibility.				•	•	•	•	338
Mathematics	Problem Solving	Didactic Materials as Needed and Abstraction: Paper and Pencil	Is able to solve word problems relating to fractions.				•	•	•	•	339
Mathematics	Problem Solving	Didactic Materials as Needed and Abstraction: Paper and Pencil	Is able to solve word problems relating to decimal fractions.						•	•	340
Mathematics	Problem Solving	Didactic Materials as Needed and Abstraction: Paper and Pencil	Is able to solve word problems relating to geometry concepts.				•	•	•	•	341
Mathematics	Problem Solving	Didactic Materials as Needed and Abstraction: Paper and Pencil	Is able to solve word problems relating to measurement.				•	•	•	•	342
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to solve word problems relating to distance and time.				•	•	•	•	343
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to use the method of drawing a picture or diagram to solve a problem.				•	•	•	•	344
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to use the method of making an organized list to solve a problem.				•	•	•	•	345
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to use the method of making a table to solve a problem.						•	•	346

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to use the method of solving a simpler, related problem to solve a more complex problem.	L						•	•	347
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to find a pattern to solve a problem.					•	•	•	•	348
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to use the 'guess-and- check' method in order to solve a problem.					•	•	•	•	349
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to use the method of experimentation in order to solve a problem.					•	•	•	•	350
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to act out a scenario in order to solve a problem.					•	•	•	•	351
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to work backwards in order to solve a problem.							•	•	352
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to figure out and write an equation in order to solve a problem.								•	353
Mathematics	Problem Solving	Abstraction: Paper and Pencil	Is able to alter one's point of view or perspective in order to solve a problem.	r							•	354
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet	Introduction to recognition and nomenclature of geometric figures using the first presentation tray of geometric shapes.	•	•	R	R	R	R	R		355
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet	Identifies basic geometric shapes using the shapes in the Geometric Cabinet.	. •	•	R	R	R	R	R		356
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet	Identifies types of triangles by their sides using the shapes in the Geometric Cabinet.	•	•	•	R	R	R	R		357
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet	Identifies types of triangles by their angles (right, scalene, obtuse), using the shapes in the Geometric Cabinet.				•	•	•	R		358
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet	Identifies all of the quadrilaterals using the shapes in the Geometric Cabinet.	•	•	•	R	R	R	R		359

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet	Identifies irregular polygons through the decagon using the shapes in the Geometric Cabinet.	•	•	•	R	R	R	R		360
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet	Identifies circles using the shapes in the Geometric Cabinet.	•	•	•	R	R	R	R		361
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet	Identifies the curved-edged shapes using the shapes in the Geometric Cabinet.	•	•	•	R	R	R	R		362
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet	Differentiates between a circle, ellipse, and oval using the shapes in the Geometric Cabinet.	•	•	•	R	R	R	R		363
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet & Matching Card Set	Matches shapes from the Geometric Cabinet to geometric cards with completely colored interior.	•	•	•	R	R	R	R		364
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet & Matching Card Set	Matches shapes from the Geometric Cabinet to geometric cards with thick colored outline.	•	•	R						365
Mathematics	Geometry: Plane Geometric Shapes	Geometric Cabinet & Matching Card Set	Matches shapes from the Geometric Cabinet to geometric cards with thin colored outline.	•	•	R						366
Mathematics	Geometry: Geometric Solids	Geometric Solids	Identifies a cube, sphere, cylinder pyramid, and cone.	•	•	•	R	R	R	R		367
Mathematics	Geometry: Geometric Solids	Geometric Solids	Identifies a rectangular prism, triangular prism, ovoid, and ellipsoid.	•	•	•	R	R	R	R		368
Mathematics	Geometry: Geometric Solids	Geometric Solids	Identifies the faces, edges, and surfaces of solid geometric objects.		Ι	Ι	•	•	•	R		369
Mathematics	Geometry: Constructive Triangle Boxes	Constructive Triangle Box	Identifies congruent, similar shapes by matching sensorially.	•	•	•	•	•	•	R		370
Mathematics	Geometry: Three Concepts: First Presentation	Fractional Equivalency Insets	Identifies fractional equivalencies in relation to plane shapes.					•	•	R		371
Mathematics	Geometry: Three Concepts: Second Presentation	Fractional Equivalency Insets	Identifies the symbols for congruency, similarity, and equivalency and the meaning of each in relation to plane shapes.					•	•	R		372

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG (	lst 21	nd 3rd	4th	5th	6th	ID #
Mathematics	Geometry: Three Concepts: Third Presentation	Fractional Equivalency Insets, Ornamental Geometry Material, Box of Sticks	Extrapolates the concept of similarity across squares and equilateral triangles.				•	•	R		373
Mathematics	Geometry: Equivalence Games	Tangrams	Explores the concepts of congruency, similarity, and equivalence.				•	•	R		374
Mathematics	Geometry: Triangle As a Constructor	Triangle Box	Explores the reflexive, symmetric, and transitive properties.	,			•	•	R		375
Mathematics	Geometry: Triangle As a Constructor	Large Hexagon Box	Explores the reflexive, symmetric, and transitive properties.	,			•	•	R		376
Mathematics	Geometry: Triangle As a Constructor	Small Hexagon Box	Explores the reflexive, symmetric, and transitive properties.	,			•	•	R		377
Mathematics	Geometry: Triangle As a Constructor	Combination of All Boxes	Explores the reflexive, symmetric, and transitive properties.	,			•	•	•	R	378
Mathematics	Geometry: Lines	Any Material that Demonstrates Straight, Curved and Broken Lines	Identifies types of lines.	•	•	• •	•	R	R	R	379
Mathematics	Geometry: Lines	Any Material that Demonstrates Point of Origin, Endpoints, Rays, Line Segments	Identifies parts of a line.			• •	•	•	R	R	380
Mathematics	Geometry: Lines	Any Material that Demonstrates Lines Drawn at Different Angles in Space	Identifies positions of lines in space.			• •	•	•	R	R	381
Mathematics	Geometry: Lines	Any Material that Demonstrates Lines Drawn in Relationship to Each Other	Identifies positions of lines in relation to each other.				•	•	•	R	382
Mathematics	Geometry: Nomenclature of Circles	Fraction Insets or Plastic Fractions from the Elementary Fraction Box	Identifies the parts of a circle.				•	•	•	R	383
Mathematics	Geometry: Nomenclature of Triangles	Geometric Cabinet, Rectangular Box, Triangle Box, Large Hexagon Box, Small Hexagon Box	Identifies the parts of a triangle.				•	•	R	R	384

	Montes	sori Foundat	ion Curriculum Scop	e and Sequ	uer	nce:	A	ges	3 to	o 12	2
	C V	vill be able to demo	nd of the span of age or grade l nstrate the following skills, kno	wledge, and/or	und	w, stu erstan	den Idin	ts g:			
Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Geometry: Nomenclature of Squares	Geometric Cabinet, Fractional Equivalency Insets	Identifies the parts of a square.		•	•	•	•	R	R	385
Mathematics	Geometry: Types of Angles	Fraction Pieces Used in Conjunction with the Montessori Protractor	Identifies the main types of angles.				•	•	R	R	386
Mathematics	Geometry: Types of Angles	Fraction Pieces Used in Conjunction with the Montessori Protractor and Geometric Cabinet	Identifies different angles, similarities, and congruence.				•	•	•	R	387
Mathematics	Geometry: Angles	Protractor: Use of a Montessori Protractor First, then Use of a Traditional Protractor to Measure Any Angles	Measures angles with a protractor.				•	•	•	•	388
Mathematics	Geometry: Angles	Material that demonstrates adjacent and vertical angles	Names the relationships between two angles.				•	•	R	R	389
Mathematics	Geometry: Angles	Angles measuring to 90 and 180 degrees	Identifies combinations of angles.						•	•	390
Mathematics	Geometry: Angles	Protractor: Use of a Montessori Protractor First, then Use of a Traditional Protractor to Measure Any Angles for Addition Purposes	Adds angles.						•	•	391
Mathematics	Geometry: Lines and Angles	Any Material that Demon-strates Two Parallel Lines Cut by a Transversal and the Accompany-ing Types of Angles and Angle Relationships	Names angles formed by two straight lines cut by a transversal.						•	•	392
Mathematics	Geometry: Angles and Plane Shapes	Materials from the Geometric Cabinet; Construction Paper, Scissors, Colored Pencils, Glue	Identifies the sum of the interior angles of a triangle or regular polygon.						•	•	393

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Advanced Geometry Theory	Book or Story about the History of Pythagorus - 'Rope Stretchers'	Introduction to the Pythagorean Theorem.							•	394
Mathematics	Advanced Geometry Theory	Inset 18 of the 2nd Montessori Geometry Cabinet Materials	Recognizes the isosceles right triangle case of the Pythagorean Theorem - sensorial presentation.							•	395
Mathematics	Advanced Geometry Theory	Inset 19 of the 2nd Montessori Geometry Cabinet Materials	Recognizes the arithmetical (3-4 -5) case of the Pythagorean Theorem.							•	396
Mathematics	Advanced Geometry Theory	Inset 20 of the 2nd Montessori Geometry Cabinet Materials	Understands Euclid's Solution of the Pythagorean Theorem.							•	397
Mathematics	Geometry: Construction of Various Figures	Materials that Demonstrate the Concept of Symmetry	Demonstrates line symmetry in a given shape by folding along its center line.	• •	•	•	•	•	R		398
Mathematics	Geometry: Construction of Various Figures	Straight Edge, Compass	Constructs a line segment of equal lengths, using a straight edge and a compass.			•	•	•	•	R	399
Mathematics	Geometry: Construction of Various Figures	Straight Edge, Compass	Constructs an angle of a given measure with a protractor and straightedge.				•	•	•	•	400
Mathematics	Geometry: Construction of Various Figures	Compass, Fraction Pieces	Bisects an angle with a compass and straightedge.				•	•	•	•	401
Mathematics	Geometry: Construction of Various Figures	Compass, Straight Edge	Constructs a perpendicular to a line from a point off the line.				•	•	•	•	402
Mathematics	Geometry: Construction of Various Figures	Compass, Straight Edge	Constructs an equilateral triangle using a compass.				•	•	•	•	403
Mathematics	Geometry: Construction of Various Figures	Compass, Straight Edge	Constructs a triangle given two sides and an angle lying between.				•	•	•	•	404
Mathematics	Geometry: Construction of Various Figures	Compass, Straight Edge	Constructs a triangle given two angles and the side lying between.				•	•	•	•	405
Mathematics	Geometry: Construction of Various Figures	Compass, Straight Edge	Bisects a line segment with a compass and straightedge.				•	•	•	•	406

Montessori Foundation	Curriculum S	scope and	Sequence	Ages 3	to 12
Montesson roundation	Curriculum	scope and	sequence.	nges J	10 12

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Geometry: Construction of Various Figures	Compass, Straight Edge, Protractor	Draws a line perpendicular to another line with a straightedge, compass, and protractor.				•	•	•	•	407
Mathematics	Geometry: Construction of Various Figures	Protractor, Straight Edge	Constructs a square with a protractor and straightedge.				•	•	•	•	408
Mathematics	Geometry: Construction of Various Figures	Compass	Constructs a circle with a compass.				•	•	•	•	409
Mathematics	Geometry: Construction of Various Figures	Straight Edge, Set Square and Compass	Constructs a scale model or drawing of an object given a scale to follow.	;					•	•	410
Mathematics	Geometry: Construction of Various Figures	Worksheets with Directions and Shapes for Construction	Constructs a variety of polyhedrons.				•	•	•	•	411
Mathematics	Geometry: Measurement of Perimeter	Materials from the Geometric Cabinet and Later on Polygons Found on Task Cards or in Books	Measures the perimeter of triangles, quadrilaterals, and polygons.		•	•	•	•	R	R	412
Mathematics	Geometry: Measurement of Parts of the Circle	Straight Edge and Possibly a Compass	Measures the radius and diameter of a circle.				•	•	•	•	413
Mathematics	Geometry: Measurement of Parts of the Circle	Montessori Protractor and Montessori Fraction Pieces	Computes arcs.						•	•	414
Mathematics	Geometry: Measurement of Parts of the Circle	Montessori Circles Found in the Geometric Cabinet and Any Other Materials that Are in the Shape of a Circle	Measures the circumference of a circle.						•	•	415
Mathematics	Geometry: Area	Montessori Rectangles Found in the Yellow Area Material and in the Geometric Cabinet	Calculates the area of a rectangle.						•	•	416
Mathematics	Geometry: Area	Montessori Yellow Area Material and Parallelograms Found in the Geometric Cabinet	Calculates the area of a parallelogram.						•	•	417

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd 31	d 4th	5th	6th	ID #
Mathematics	Geometry: Area	Montessori Squares Found in the Geometric Cabinet	Calculates the area of a square.					•	•	418
Mathematics	Geometry: Area	Montessori Triangles Found in the Yellow Area Material and Triangles Found in the Geometric Cabinet	Calculates the area of a triangle.					•	•	419
Mathematics	Geometry: Area	Teacher-Made Materials to Show Equivalency and How a Formula Is Derived	Calculates the area of a rhombus.					•	•	420
Mathematics	Geometry: Area	Teacher-Made Materials to Show Equivalency and How a Formula Is Derived	Calculates the area of a kite.					•	•	421
Mathematics	Geometry: Area	Teacher-Made Materials to Show Equivalency and How a Formula Is Derived	Calculates the area of a trapezoid.					•	•	422
Mathematics	Geometry: Area	Teacher-Made Materials to Show Equivalency and How a Formula Is Derived	Calculates the area of an irregular quadrilateral.					•	•	423
Mathematics	Geometry: Area	Teacher-Made Materials to Show Equivalency and How a Formula Is Derived	Calculates the area of regular polygons.					•	•	424
Mathematics	Geometry: Area	Teacher-Made Materials to Show Equivalency and How a Formula Is Derived	Calculates the area of any irregular polygon.					•	•	425
Mathematics	Geometry: Area	2nd Geometric Cabinet (Frac-tion Cabinet) Equivalent Figure material - Two Presenta-tions To Show Two Different Ways To Obtain the Area of a Circle Formula	Calculates the area of a circle.						•	426

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Geometry: Volume	Cubing Material Preferably Both the Volume Box with 250 Cubes and the Volume Box with 1000 Cubes; Other Material May Be Used To Associate with the Volume of the Pink Tower; the Five Yellow Prisms May Also Be Used; Blue Metal Volume Containers; Elementary Geometric Solids	Calculates the volume of a cube.							•	427
Mathematics	Geometry: Volume	Cubing Material Preferably Both the Volume Box with 250 Cubes and the Volume Box with 1000 Cubes; Other Material May Be Used To Associate with the Volume of the Pink Tower; the Five Yellow Prisms May Also Be Used; Blue Metal Volume Containers; Elementary Geometric Solids	Calculates the volume of a rectangular prism.							•	428
Mathematics	Geometry: Volume	Guide Prism, Regular Square Prism, Sand, Hollow Volume Material	Calculates the volume of a pyramid.							•	429
Mathematics	Geometry: Volume	Guide Prism, Hexagonal Prism, Cylinder, Square, Hexagon and Circle from the Geometric Cabinet	Can calculate the volume of a cylinder.							•	430
Mathematics	Geometry: Volume	Right Circular Cone, Cylinder, Rectangular Prism, Square- Based Pyramid, Triangular-Based Pyramid	Calculates the volume of a cone.							•	431
Mathematics	Geometry: Volume	Volume Material, Construction Paper	Calculates the volume of a sphere.							•	432

	Monte	ssori Foundat	ion Curriculum Scoj	pe and Sequ	uenc	e: A	ges 3	to 1	2
		Commonly, by the e will be able to demo	nd of the span of age or grade nstrate the following skills, kn	levels indicated l owledge, and/or	oelow, unders	studen standin	.ts g:		
Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st 21	nd 3rd	4th 5t	h 6th	ID#
Mathematics	Geometry: Surface Area	Volume Material, Cubing Material, Pictures of Polyhedra	Calculates the surface area of regular polyhedra.					•	433
Mathematics	Geometry: Surface Area	Volume Material, Construction Paper	Calculates the surface area of a cylinder.					•	434
Mathematics	Geometry: Surface Area	Volume Material and Teacher -Made Materials	Calculates the surface area of a cone.					•	435
Mathematics	Geometry: Surface Area	Volume Material, Teacher -Made Materials, and Cut- Out Inset of the Largest Circle in the Geometric Cabinet	Calculates the surface area of a sphere.					•	436



# Curriculum Scope & Sequence The Geography Curriculum

Childrren as young as three begin an early study of physical and cultural geography.

We have two basic objectives in presenting geography to young children. The first is to help them develop a clearer sense of spatial orientation through enriched and intensive interaction and experience. The second is to encourage children to become aware of and accept other cultures through related experiences in cultural studies.

#### Children usually enter school

without clear concepts or the vocabulary of spatial relations (up, down, near, far, and so forth). At the same time, young children have a strong need for order in their environment. The order established in a Montessori prepared environment help them to develop these concepts.

We study cartography (mapping skills) and physical geography, cultural geography, and economic geography (natural resources, crops, industries, how goods are transported to market). In the early years, we introduce children to these concepts, and build on this knowledge in the later years.



Geography is important both as a necessary conceptual framework and spatial orientation, and as a bridge to the development of the child's understanding and appreciation of the story of humankind and nature. As in other areas of the Montessori curriculum, we first give children the big picture, then move gradually to the details: names of countries, rivers and mountains, and a grasp of the cultures of other lands. The framework is always our relationship to the Earth: how we meet our basic needs (shelter, food, clothing, transportation, defense, ornamentation, and self-expression) under varying geographic conditions.





#### How to Read the Code of Dots and Letters Used in the Scope and Sequence:

Montessori does not organize curriculum by the grade level at which topics are to be taught. We assume that children learn at different paces and learn best in different ways. In most cases, students in Montessori programs will work on any given skill or concept over several years. We introduce students to new lessons as soon as they seem to be ready. Likewise, we have a plan of what Montessori students ought to learn and the age/grade levels at which which we expect mastery from most students.

Instead of arranging our curriculum by grade level, we organize it by the subsets of concepts and skills (Strands) and the sequence in which they will be taught. In our Curriculum Scope and Sequence, to the right of the list of curriculum elements, we use a series of vertical columns to represent a given span of ages or grades. We use large dots to indicate the age or grade levels at which we anticipate a given lesson will be presented. Since we do not follow a grade-by-grade curriculum, the age or grade when a child will actually be ready to begin work depends on his or her developmental readiness. Our Dot Code is simply a guideline for Montessori educators.

When viewed in color on a computer, the dots follow a pattern of green, blue, and red, which is repeated at each Montessori three-year program cycle. The color coding makes it somewhat easier to see at which age/grade levels we anticipate children will work on concepts or skills. Normally, students return to work many times over two years or longer before they truly understand what they have studied and retain it over time.

	Montes	so <del>r</del> i Foundat	ion Curriculum Scop	e a	nd S	eq	uet	ice	Ą	ges	3 t	o 12	2
	C V	Commonly, by the e vill be able to demo	end of the span of age or grade l onstrate the following skills, kno	evels wled	indica ge, and	ited   l/or	belo und	w, sti lersta	uden ndin	ts g:			
Area	Strand	Lesson/Material	Curriculum Element	Age	3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Golden Bead Materials	Demonstrates an understanding of the concept of change between hierarchies, using additive quantities with Golden Bead Materials.		•	•	R						25
Mathematics	Decimal System: Introduction to Place Value: 2	Constructing Quantities with the Golden Beads and Number Cards	Constructs, identifies, and names the quantity (naming correctly from left to right), up to 9,999, represented by an assembly of Golden Beads.		•	•	R						26

As you can see by the example above, we expect that the two Math skills shown (items number 25 and 26) will normally be introduced at age four, and we anticipate that children will continue to work on them over the following year. The "R" shown in the 1st-grade column indicates that we suggest that the teachers ought to review and re-test to see if the child still understands the concept or skill. In some case the symbol "I" is used to indicate that a child should be given a first introduction to a concept or skill at a given age/grade level. Students often work on some concepts and skills over the course of several years.

Area	Strand	Lesson/Material	Curriculum Element	Age 3	3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Geography	Position and Direction	Initial experience: Position	Explores position in space and direction through bodily movement and in the context of the classroom, garden, and playground.	•	•	•							1
Geography	Position and Direction	Initial experience: Position	Explores the school, garden, playground, and neighborhood by means of short walks, where he/she develops an awareness of various features (landmarks) and their position in relation to one another.	•	•	•							2
Geography	Position and Direction	Initial experience: Position	Demonstrates understanding of the basic terms used to describe an object's position in the environment: top, bottom, low, high, lower, higher, in front of, behind, right, left, etc.	•	•	•	R						3
Geography	Position and Direction	Initial experience: Position	Describes own position and movement with increasing confidence.	•	•	•							4
Geography	Position and Direction	Initial experience: Position	Uses the names of points of interest in their environment with increasing confidence and accuracy.	٠	•	•							5
Geography	Position and Direction	Initial experience: Position	Views various objects (such as Geometric Solids, historical artifacts) from different angles to begin to develop an awareness that objects look very different from different angles; comments on what he/she notices.	•	•	•							6
Geography	Position and Direction	Initial experience: Position	Draws solid objects (e.g., Geometric Solids) from different angles.		•	•	•						7
Geography	Position and Direction	Initial experience: Position	Looks at an arrangement of simple objects in a limited space and draws them from above, creating a simple map or plan of their relationship to one another.		•	•	•						8
Geography	The Earth: 1	Land, Air and Water	Works with the Land, Air, and Water activity to develop an understanding that the Earth is comprised of three major constituents (air, land, and water); matches images to corresponding containers.	•	•	•							9
Geography	The Earth: 1	Land, Air and Water	Reads the labels associated with the Land, Air, and Water activity and places them in relation to corresponding containers and/or images.		•	•							10

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 K	G 1st	2nd	3rd	4th	5th	6th	ID #
Geography	The Earth: 1	Land, Air and Water	Explores the Land and Water Globe to gain an understanding that the Earth is comprised of large bodies of land and water surrounded by a shallow blanket of air.	• •							11
Geography	The Earth: 1	Land, Air and Water	Distinguish between the representations of land masses and the oceans on the Land and Water Globe.	• •	I						12
Geography	The Earth: 1	Land, Air and Water	Explains that the Earth is shaped like a sphere and is represented ir a much smaller scale by a globe, using the Land and Water Globe, the Continent Globe, or a standard school globe.	1 <b>•</b>	•						13
Geography	The Earth: 1	Land and water forms	Looks at albums showing classic images of various land and water forms, discussing obvious features and exploring relevant language.	• •	•						14
Geography	The Earth: 1	Land and water forms	Sensorially explores the various land and water forms through work with the Land Forms materials.	• •	•	R					15
Geography	The Earth: 1	Land and water forms	Matches the Land Form trays to the corresponding graphic representations and images of land forms.	• •	•	R					16
Geography	The Earth: 1	Land and water forms	Identifies and names the following major land and water forms: island, lake, bay, cape, peninsula, isthmus, strait, archipelago, and system of lakes using either the three-dimensiona trays or the cards which correspond with them.	1	•	R					17
Geography	The Earth: 1	Land and water forms	Locates examples of each of the land and water forms on the Land and Water Globe.	d • •	•	R					18
Geography	The Earth: 1	Land and water forms	Reads names of Land and Water Forms and places cards next to the models or corresponding cards.	• •	•	R					19
Geography	The Earth: 1	Land and water forms	Reads definitions of Land and Water Forms and pairs with the corresponding vocabulary labels.	• •	•	R					20
Geography	The Earth: 1	Land and water forms	Reads simple Command Cards relating to the Land and Water Forms and demonstrates understanding by carrying out the instruction.	• •	•	R					21

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Geography	The Earth: 1	Land and water forms	Makes own models of land and water forms using papier maché or clay.	•	•	•	R					22
Geography	The Earth: 1	Land and water forms	Notices (in pictures, videos, or while traveling) that there are other land forms and features in the landscape and wants to know their names; develops an interest in the physical features of the Earth.	•	•	•	R					23
Geography	Mapping 1	Continents Globe	Identifies and names the continents on the Continents Globe.	•	•	•	•					24
Geography	Mapping 1	World Puzzle Map	Sensorially explores the World Puzzle Map, removing and replacing the pieces.	• •	•							25
Geography	Mapping 1	Globe and Flat Maps	Demonstrates a beginning understanding that the flat maps represent the same land and water features as a globe, using a globe, a flattened rubber ball, and the World Puzzle Map.	r.	•	•	•					26
Geography	Mapping 1	World Puzzle Map - Continents	Identifies and names the continents using the World Puzzle Map.	•	•	•	•					27
Geography	Mapping 1	World Puzzle Map - Oceans	Identifies and names the oceans using the World Puzzle Map.	•	•	•	•					28
Geography	Mapping 1	Globe and Globe Projection Map	Demonstrates a deepening understanding that the flat maps represent the same land and wates features as a globe using a globe projection map.	r	•	•	•					29
Geography	Mapping 2	World Puzzle Map - Tracing pieces to make a map	Makes own map of the continents tracing the pieces of the World Puzzle Map	5	•	•	•					30
Geography	Mapping 2	World Puzzle Map and Outline Control Map	Using the World Puzzle Map, matches the pieces from the Puzzle Map to their outline shapes on the corresponding Outline Control Map.	•	•	•	•					31
Geography	Mapping 2	Puzzle Map of the World and the Puzzle Maps of Each Continent	Given a continent puzzle pieces from the World Puzzle Map, can find the corresponding Puzzle Map for each continent.	• •	•	•	•					32

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd 4th	5th	6th	ID #
Geography	Mapping 2	Puzzle Map of North America and Outline Control Map	Using the Puzzle Map of North America, matches the pieces from the Puzzle Map to their outline shapes on the corresponding Outline Control Map.	1 <b>•</b>	•	•				33
Geography	Mapping 3	Puzzle Map of North America without Outline Control Map	Constructs the Puzzle Map of North America without using the Outline Control Map.	• •	•	•				34
Geography	Mapping 3	Puzzle Map of North America - Names of the Countries	Using the Puzzle Map of North America, identifies and names the countries.	• •	•	•				35
Geography	Mapping 3	Puzzle Map of North America - Tracing pieces to make a map	Makes own map of North America, using the pieces of the corresponding Puzzle Map to trace each country.	• •	•	•				36
Geography	Mapping 4	Puzzle Map of North America - Reading Names of the Countries	Using the Puzzle Map of North America, reads country names and relates them to the corresponding puzzle pieces.	• •	•	•				37
Geography	Mapping 4	Booklet of countries of North America	Makes own booklets with outlines of countries traced from the Puzzle Map of North America and adds their printed names.	s • •	•	•				38
Geography	Mapping 3	Puzzle Map of the United States and Outline Control Map	Constructs the Puzzle Map of the United States without the use of the Outline Control Map.	• •	•	•				39
Geography	Mapping 2	Puzzle Map of South America and Outline Control Map	Using the Puzzle Map of South America, matches the pieces from the Puzzle Map to their outline shapes on the corresponding Outline Control Map.	n • •	•	•				40
Geography	Mapping 2	Puzzle Map of the United States - Identifes the State they live in	Can identity the puzzle piece for the State in which they live on the Puzzle Map of the United States.	e •	•	•				41
Geography	Mapping 3	Puzzle Map of South America without Outline Control Map	Constructs the Puzzle Map of South America without using the Outline Control Map.	• •	•	•				42
Geography	Mapping 3	Puzzle Map of South America - Names of the Countries	Using the Puzzle Map of South America, identifies and names the countries.	• •	•	•				43
Geography	Mapping 3	Puzzle Map of South America - Tracing pieces to make a map	Makes own map of South America, using the pieces of the corresponding Puzzle Map to trace each country.	• •	•	•				44

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd 4	łth	5th	6th	ID #
Geography	Mapping 4	Puzzle Map of South America - Reading Names of the Countries	Using the Puzzle Map of South America, reads country names and relates them to the corresponding puzzle pieces.	• •	•	•					45
Geography	Mapping 4	Booklet of countries of South America	Makes own booklets with outlines of countries traced from the Puzzle Map of South America and adds their printed names.	• •	•	•					46
Geography	Mapping 2	Puzzle Map of Europe and Outline Control Map	Using the Puzzle Map of Europe, matches the pieces from the Puzzle Map to their outline shapes on the corresponding Outline Control Map.	• •	•	•					47
Geography	Mapping 3	Puzzle Map of Europe without Outline Control Map	Constructs the Puzzle Map of Europe without using the Outline Control Map.	• •	•	•					48
Geography	Mapping 3	Puzzle Map of Europe - Names of the Countries	Using the Puzzle Map of Europe, identifies and names the countries.	• •	•	•					49
Geography	Mapping 3	Puzzle Map of Europe - Tracing pieces to make a map	Makes own map of Europe, using the pieces of the corresponding Puzzle Map to trace each country	••	•	•					50
Geography	Mapping 4	Puzzle Map of Europe - Reading Names of the Countries	Using the Puzzle Map of Europe, reads country names and relates them to the corresponding puzzle pieces.	• •	•	•					51
Geography	Mapping 3	Puzzle Map of the United States - Names of the Countries	Identifies and names the states or provinces of the country.		•	•					52
Geography	Mapping 4	Booklet of countries of Europe	Makes own booklets with outlines of countries traced from the Puzzle Map of Europe and adds their printed names.	• •	•	•					53
Geography	Mapping 2	Puzzle Map of Asia and Outline Control Map	Using the Puzzle Map of Asia matches the pieces from the Puzzle Map to their outline shapes on the corresponding Outline Control Map.	• •	•	•					54
Geography	Mapping 3	Puzzle Map of Asia without Outline Control Map	Constructs the Puzzle Map of Asia without using the Outline Control Map.	• •	•	•					55
Geography	Mapping 3	Puzzle Map of Asia - Names of the Countries	Using the Puzzle Map of Asia identifies and names the countries.	• •	•	•					56

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd 31	d 4th	5th	6th	ID #
Geography	Mapping 3	Puzzle Map of Asia - Tracing pieces to make a map	Makes own map of Asia using the pieces of the corresponding Puzzle Map to trace each country.	• •	•	•				57
Geography	Mapping 4	Puzzle Map of Asia - Reading Names of the Countries	Using the Puzzle Map of Asia, reads country names and relates them to the corresponding puzzle pieces.	• •	•	•				58
Geography	Mapping 4	Booklet of countries of Asia	Makes own booklets with outlines of countries traced from the Puzzle Map of Asia and adds their printed names.	• •	•	•				59
Geography	Mapping 2	Puzzle Map of Africa and Outline Control Map	Using the Puzzle Map of Africa matches the pieces from the Puzzle Map to their outline shapes on the corresponding Outline Control Map.	• •	•	•				60
Geography	Mapping 3	Puzzle Map of Africa without Outline Control Map	Constructs the Puzzle Map of Africa without using the Outline Control Map.	• •	•	•				61
Geography	Mapping 3	Puzzle Map of Africa - Names of the Countries	Using the Puzzle Map of Africa identifies and names the countries.	• •	•	•				62
Geography	Mapping 3	Puzzle Map of the United States - Makes own map of the United States	Makes own map of the United States tracing the whole country onto a large sheet of paper and then tracing the individual states; may label map with names of the states or provinces.		•	•				63
Geography	Mapping 3	Puzzle Map of Africa - Tracing pieces to make a map	Makes own map of Africa using the pieces of the corresponding Puzzle Map to trace each country.	• •	•	•				64
Geography	Mapping 4	Puzzle Map of Africa - Reading Names of the Countries	Using the Puzzle Map of Africa reads country names and relates them to the corresponding puzzle pieces.	• •	•	•				65
Geography	Mapping 4	Booklet of countries of Africa	Makes own booklets with outlines of countries traced from the Puzzle Map of Africa and adds their printed names.	•	•	•				66
Geography	Mapping 2	Puzzle Map of Oceania and Outline Control Map	Using the Puzzle Map of Oceania matches the pieces from the Puzzle Map to their outline shapes on the corresponding Outline Control Map.	• •	•	•				67
Geography	Mapping 3	Puzzle Map of Oceania without Outline Control Map	Constructs the Puzzle Map of Oceania without using the Outline Control Map.	• •	•	•				68

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Ag	ge 4 l	KG	1st	2nd	3rd	4th	5th	6th	ID #
Geography	Mapping 3	Puzzle Map of Oceania - Names of the Countries	Using the Puzzle Map of Oceania identifies and names the countries.	(	•	•	•	•					69
Geography	Mapping 3	Puzzle Map of Oceania - Tracing pieces to make a map	Makes own map of Oceania using the pieces of the corresponding Puzzle Map to trace each country.	;	•	•	•	•					70
Geography	Mapping 4	Puzzle Map of Oceania - Reading Names of the Countries	Using the Puzzle Map of Oceania reads country names and relates them to the corresponding puzzle pieces.		•	•	•	•					71
Geography	Mapping 4	Booklet of countries of Oceania	Makes own booklets with outlines of countries traced from the Puzzle Map of Oceania and adds their printed names.	;	•	•	•	•					72
Geography	Mapping skills 3	Labeling a blank map of the states or provinces of the country in which you live	Prepares written name tags to label the states of the United States, placing them on the corresponding Puzzle Map or a blank outline map.				•	•	•	•	•	R	73
Geography	Mapping skills 3	Labeling a blank map of North America	Prepares written name tags to label the countries of North America, placing them on the corresponding Puzzle Map or blank outline map.				•	•	•	•	•	R	74
Geography	Mapping skills 3	Labeling a blank map of South America	Prepares written name tags to label the countries of South America, placing them on the corresponding Puzzle Map or blank outline map.				•	•	•	•	•	R	75
Geography	Mapping skills 3	Labeling a blank map of Europe	Prepares written name tags to label the countries of Europe, placing them on the corresponding Puzzle Map or blank outline map.				•	•	•	•	•	R	76
Geography	Mapping skills 3	Labeling a blank map of Africa	Prepares written name tags to label the countries of Africa, placing them on the corresponding Puzzle Map or blank outline map.				•	•	•	•	•	R	77
Geography	Mapping skills 3	Labeling a blank map of Asia	Prepares written name tags to label the countries of Asia, placing them on the corresponding Puzzle Map or blank outline map.				•	•	•	•	•	R	78
Geography	Mapping skills 3	Labeling a blank map of Oceania	Prepares written name tags to label the countries of Oceania, placing them on the corresponding Puzzle Map or blank outline map.				•	•	•	•	•	R	79

Area	Strand	Lesson/Material	Cu <del>rric</del> ulum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Geography	Mapping skills - Introduction to compass directions 3	Map and Compass	Uses a simple compass to identify the directions north, east, south, and west.	•	•	•	•	R				80
Geography	Mapping Skills - The Town game 3	Map and Compass: The Town Game	Using the Town Game, the child places specific model buildings or a model town, using commands that specify on which corner (NE, NW, SE, SW) of a given intersection they should be placed.	L		•	•	•				81
Geography	Mapping Skills - Map Reading 3	Reading a map - determining the distance between two points along a route	Determines the distance along a given route between two points, using the map scale.			•	•	•	•	•	•	82
Geography	Mapping Skills - Map Reading 3	Map Reading - recognizing the size of cities and towns as portrayed on maps	Determines the size of cities and towns on a highway map, using the map key.			•	•	•	•	•	•	83
Geography	Mapping Skills - Map Reading 3	Map Reading - recognizing the size of roadways portrayed on maps	Distinguishes among the kinds of roads shown on a highway map, using the map key.			•	•	•	•	•	•	84
Geography	Mapping Skills - Map Reading 3	Map Reading - Lines of Longitude and Latitude	Locates a point on a detailed chart given its longitude and latitude in degrees, minutes, and seconds.			•	•	•	•	•	•	85
Geography	Mapping Skills - Map Reading 3	Map Reading - Lines of Longitude and Latitude	Measures distance between two points on a globe using a Great Circle route.			•	•	•	•	•	•	86
Geography	Mapping Skills - Map Reading 3	Map Reading - Lines of Longitude and Latitude	Identifies time zone differences on a globe using longitude.			•	•	•	•	•	•	87
Geography	Mapping Skills - Using an Atlas 3	Map reading - recognizing climate data shown symbolically on maps	Uses a pictographic map from an atlas to determine what type of climate(s) exist within a given country.			•	•	•	•	•	•	88
Geography	Mapping Skills - Map making 3	GPS mapping tools	Explains how GPS navigation systems work.			•	•	•	•	•	•	89
Geography	Mapping Skills - Map making 3	GPS mapping tools	Explains, in simple terms, how a satellite image system, such as Google Earth <sup>™</sup> , works.			•	•	•	•	•	•	90
Geography	Mapping skills 2	Pin Maps: Labeling the countries of North America	Using the Pin Maps, the child can label the countries of North America.			•	•	•	•	•	R	91

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Geography	Mapping skills 2	Pin Maps: Labeling the countries of North America	Using the Pin Maps, the child can identify and labels the capital cities of the nations of North America.		•	•	•	•	•	R	92
Geography	Mapping skills 2	Pin Maps: Labeling the countries of South America	Using the Pin Maps, the child can label the countries of South America.		•	•	•	•	•	R	93
Geography	Mapping skills 2	Pin Maps: Labeling the countries of South America	Using the Pin Maps, the child can identify and labels the capital cities of the nations of South America.		•	•	•	•	•	R	94
Geography	Mapping skills 2	Pin Maps: Labeling the countries of Europe	Using the Pin Maps, the child can label the countries of Europe.		•	•	•	•	•	R	95
Geography	Mapping skills 2	Pin Maps: Labeling the countries of Europe	Using the Pin Maps, the child can identify and labels the capital cities of the nations of Europe.		•	•	•	•	•	R	96
Geography	Cultural geography 1	Flags	Identifies flag of own country.	• • •	•						97
Geography	Cultural geography 1	Flags	Communicates an awareness of flags as symbols of countries.								98
Geography	Cultural geography 1	Flags	Matches pictures of flags of various countries.	• •	•	•					99
Geography	Cultural geography 1	Flags	Identifies and names the flags of various countries.		•	•	•	•			100
Geography	Cultural geography 1	Flags	Identifies and names the flags of many countries from own continent.				•	•	•		101
Geography	Cultural geography 1	Flags	Draws or makes flags using various media (drawing, tracing, cutting, pasting, etc.).				•	•	•	•	102
Geography	Cultural geography 1	Flags	Identifies and names the flags of many countries, including large countries and the countries of origin of all children in the class.				•	•	•		103
Geography	Cultural geography 1	Flags	Displays an interest in and explores various components of the flags of different countries, noting how certain symbols can give a clue as to the history or location of a country.				•	•	•	•	104

Area	Strand	Lesson/Material	Curriculum Element	Age	3 Age 4 K	KG 1st	2nd	3rd	4th	5th	6th	ID #
Geography	Cultural geography 1	Flags	Displays an interest in and explores the flags of various associations and other groups (other than countries) as well as some of the uses of flags.					•	•	•	•	105
Geography	Cultural geography 1	Flags	Matches the countries of North America with their flags, using the corresponding Puzzle Map, Pin Map, or blank outline map.		•	• •	•	•	•	•	R	106
Geography	Cultural geography 1	Flags	Matches the countries of South America with their flags, using the corresponding Puzzle Map, Pin Map, or blank outline map.		•	• •	•	•	•	•	R	107
Geography	Cultural geography 1	Flags	Matches the countries of Europe with their flags, using the corresponding Puzzle Map, Pin Map, or blank outline map.		•	• •	•	•	•	•	R	108
Geography	Cultural geography 1	Flags	Matches the countries of Africa with their flags, using the corresponding Puzzle Map, Pin Map, or blank outline map.		•	• •	•	•	•	•	R	109
Geography	Cultural geography 1	Flags	Matches the countries of Oceania with their flags, using the corresponding Puzzle Map, Pin Map, or blank outline map.	a	•	• •	•	•	•	•	R	110
Geography	Cultural geography 1	Flags	Identifies and matches the flags of the states or provinces of the country in which he or she lives with the corresponding Puzzle Map or blank outline map of the country.		•	• •	•	•	•	•	R	111
Geography	Traditional American and International Holidays and Celebrations	Succos	Participates in and describes in increasing detail the origins and meaning of the traditional Israeli celebration of Succos. (Falls between late September and late October) Observed Annually /Celebrated as part of a unit on Israel in Year B		•	•	•	•	•	•	•	112
Geography	Traditional American and International Holidays and Celebrations	Oktoberfest	Participates in and describes in increasing detail the origins and meaning of the traditional German celebration of Oktoberfest. Celebrated in Year B.		•	• •	•	•	•	•	•	113
Geography	Traditional American and International Holidays and Celebrations	Rosh Hashanah	Participates in and describes in increasing detail the origins and meaning of the traditional Jewish/American holiday of Rost Hashanah. (Falls between September 5 and October 5) Observed Annually	h	•	•	•	•	•	•	•	114

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 K	G 1st	2nd	3rd	4th	5th	6th	ID #
Geography	Traditional American and International Holidays and Celebrations	Yom Kippur	Describes in increasing detail the origins and meaning of the Jewish High Holy Day of Atonement, Yom Kippur. (Falls between September 15 and October 15) Observed Annually.	1 • •	•	•	•	•	•	•	115
Geography	Traditional American and International Holidays and Celebrations	Columbus Day	Participates in and describes in increasing detail the origins and meaning of the traditional Italian- American holiday, Columbus Day. (Mid-October) Optional/Observed Annually in the USA.	• •	•	•	•	•	•	•	116
Geography	Traditional American and International Holidays and Celebrations	International Day of Peace	Participates in celebration and discussion of the International Day of Peace. Celebrated annually	y •	•	•	•	•	•	•	117
Geography	Traditional American and International Holidays and Celebrations	International Cultural Festival	Participates in celebration and discussion of International Children's Day. Celebrated annually (normally in October)	• • •	•	•	•	٠	•	•	118
Geography	Traditional American and International Holidays and Celebrations	Halloween	Participates in and describes in increasing detail the origins and meaning of the traditional American celebration of Halloween. (October 31). Some schools celebrate International Children's Festival instead of Halloween. Optional or observed annually.	• •	•	•	•	•	•	•	119
Geography	Traditional American and International Holidays and Celebrations	Election Day	Participates in and describes in increasing detail the origins and meaning of Election Day (first Tuesday in November in election years in USA).	• •	•	•	•	•	٠	•	120
Geography	Traditional American and International Holidays and Celebrations	Veteran's Day	Participates in and describes in increasing detail the origins and meaning of the traditional American holiday, Veteran's Day (November). Observed annually	• •	•	•	•	•	•	•	121
Geography	Traditional American and International Holidays and Celebrations	Thanksgiving	Participates in and describes in increasing detail the origins and meaning of the traditional American holiday, Thanksgiving. (3rd Thursday in November). Celebrated annually.	• •	•	•	•	•	•	•	122

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age	4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Geography	Traditional American and International Holidays and Celebrations	Native / Indian Heritage Day	Participates in and describes in increasing detail the origins and meaning of Native American / Indian Heritage Day. It is celebrated on the day after Thanksgiving Day in the USA. Observed annually.		•	•	•	•	•	•	•	123
Geography	Traditional American and International Holidays and Celebrations	West African Harvest Festivals	Participates in and describes in increasing detail the origins and meaning of traditional West African Harvest Festivals. Celebrated annually or in Year C.	•	•	•	•	•	•	•	•	124
Geography	Traditional American and International Holidays and Celebrations	Diwali	Participates in and describes in increasing detail the origins and meaning of the traditional Indian celebration of Diwali. Celebrated in Year C.	•	•	•	•	•	•	•	•	125
Geography	Traditional American and International Holidays and Celebrations	Hanukkah	Describes in increasing detail the origins and meaning of the traditional Jewish/American holiday, Hanukkah (November on December). Observed annually.	•	•	•	•	•	•	•	•	126
Geography	Traditional American and International Holidays and Celebrations	Kwanzaa	Describes in increasing detail the origins and meaning of the traditional African/American celebration of Kwanzaa. Observed annually.	•	•	•	•	•	•	•	•	127
Geography	Traditional American and International Holidays and Celebrations	Traditional American Christmas	Participates in and describes in increasing detail the origins and meaning of the traditional Christian/American celebration of Christmas. (December 25). Observed annually.	•	•	•	•	•	•	•	•	128
Geography	Traditional American and International Holidays and Celebrations	European Christmas traditions	Describes the origins and meaning of the traditional ways Christmas is celebrated in the Europe. Year B.	•	•	•	•	•	•	•	•	129
Geography	Traditional American and International Holidays and Celebrations	Martin Luther King's Day and Black History Month	Participates in and describes in increasing detail the origins and meaning of the traditional American holiday, Martin Luther King's Day (January 15) and Black History Month (February). Celebrated annually.	•	•	•	•	•	•	•	•	130
Geography	Traditional American and International Holidays and Celebrations	Three Kings Day	Describes the origins and meaning of the traditional Mexican celebration of Three Kings Day (January). Observed in Year A.	1	•	•	•	•	•	•	•	131

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KC	1st	2nd	3rd	4th	5th	6th	ID #
Geography	Traditional American and International Holidays and Celebrations	Inauguration Day	Participates in and describes in increasing detail the origins and meaning of the American celebration of Inauguration Day (every four years after a Presidential election; occurs in January).	• •	•	•	•	•	•	•	132
Geography	Traditional American and International Holidays and Celebrations	Ground Hog Day	Participates in and describes in increasing detail the origins and meaning of the traditional American celebration of Ground Hog Day (February). Observed annually.	• •	•	•	•	•	•	•	133
Geography	Traditional American and International Holidays and Celebrations	Chinese New Year	Participates in and describes in increasing detail the origins and meaning of the traditional celebration of Chinese New Year (January or February) Celebrated annually in some schools or in Year C.	••	•	•	•	•	•	•	134
Geography	Traditional American and International Holidays and Celebrations	Abraham Lincoln's Birthday	Participates in and describes in increasing detail the origins and meaning of the traditional American celebration of Abraham Lincoln's Birthday (February 12). Observed annually	••	•	•	•	•	•	•	135
Geography	Traditional American and International Holidays and Celebrations	Valentine's Day	Participates in and describes in increasing detail the origins and meaning of the traditional American celebration of Valentine's Day (February 14). Celebrated annually.	• •	•	•	•	•	•	•	136
Geography	Traditional American and International Holidays and Celebrations	Carnival/Mardi Gras	Participates in and describes in increasing detail the origins and meaning of the traditional Brazilian celebrations of Carnival/Mardi Gras (February/March). Celebrated annually or in Year A.	• •	•	•	•	•	•	•	137
Geography	Traditional American and International Holidays and Celebrations	George Washington's Birthday	Participates in and describes in increasing detail the origins and meaning of the traditional American celebration of George Washington's Birthday (February 22). Observed annually.	• •	•	•	•	•	•	•	138
Geography	Traditional American and International Holidays and Celebrations	Canadian Heritage Day	Participates in and describes in increasing detail the origins and meaning of the traditional Canadian Heritage Day. Heritage Day is celebrated in Canada on the third Monday of every February. Observed in Year A.	• •	•	•	•	•	•	•	139

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Geography	Traditional American and International Holidays and Celebrations	Montessori Week	Participates in celebration and discussion of Montessori Education Week: The story of Maria Montessori. Observed annually in late February.	• •	•	•	•	•	•	•	•	140
Geography	Traditional American and International Holidays and Celebrations	St. Patrick's Day	Participates in and describes in increasing detail the origins and meaning of the traditional Irish/American celebration of St. Patrick's Day (March). Celebrated annually/Celebrated as part of a unit on Ireland in Year B	•	•	•	•	•	•	•	•	141
Geography	Traditional American and International Holidays and Celebrations	Japanese celebration of Boys' and Girls' Days	Participates in and describes in increasing detail the origins and meaning of the traditional Japanese celebration of Boys' and Girls' Days. Celebrated in Year C	•	•	•	•	•	•	•	•	142
Geography	Traditional American and International Holidays and Celebrations	Passover	Participates in and describes in increasing detail the origins and meaning of the traditional Jewish/American holiday of Passover. (March/April). Observed annually.	•	•	•	•	•	•	•	•	143
Geography	Traditional American and International Holidays and Celebrations	Easter	Participates in and describes in increasing detail the origins and meaning of the traditional Christian/American celebration of Easter (March/April). Observed annually.	•	•	•	•	•	•	•	•	144
Geography	Traditional American and International Holidays and Celebrations	Sham El Nessim, which means "Smelling of the Breeze"	Participates in and describes in increasing detail the origins and meaning of the traditional spring Egyptian celebration of Sham El Nessim, which means "Smelling of the Breeze." Celebrated in Year C.	•	•	•	•	•	•	•	•	145
Geography	Traditional American and International Holidays and Celebrations	Arbor Day	Participates in and describes in increasing detail the origins and meaning of the traditional American celebration of Arbor Day. Observed annually.	•	•	•	•	•	•	•	•	146
Geography	Traditional American and International Holidays and Celebrations	Earth Day	Participates in celebration and discussion of Earth Day. Montessori schools often celebrate Earth Day and Arbor Day together as one festival. Celebrated annually in April	••	•	•	•	•	•	•	•	147

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Geography	Traditional American and International Holidays and Celebrations	Cinco de Mayo	Participates in and describes in increasing detail the origins and meaning of the traditional Mexican/American celebration of Cinço de Mayo (May 5). Observed annually / Observed in Year A as part of a unit on Mexico.	•	•	•	•	•	•	•	•	148
Geography	Traditional American and International Holidays and Celebrations	Mother's Day	Participates in and describes in increasing detail the origins and meaning of the traditional American celebration of Mother's Day (May). Observed annually.	•	•	•	•	•	•	•	•	149
Geography	Traditional American and International Holidays and Celebrations	Father's Day	Participates in and describes in increasing detail the origins and meaning of the traditional American celebration of Father's Day (June). Observed annually.	•	•	•	•	•	•	•	•	150
Geography	Traditional American and International Holidays and Celebrations	Flag Day	Participates in and describes in increasing detail the origins and meaning of the traditional American celebration of Flag Day (June). Observed annually.	•	•	•	•	•	•	•	•	151
Geography	Cultural Geography 2	Continent Studies	Explores contents of the various Treasure Boxes containing artifacts.	•	•	•	R					152
Geography	Cultural Geography 2	Continent Studies	Identifies different styles of dress, housing, transport, and foods as belonging to a specific country of study.	•	•	•	•	R				153
Geography	Cultural Geography 3 Research and Reports	Lessons in gathering information from age-appropriate resource materials	Investigates and gathers information about the physical and cultural geography of the nations of the world from the encyclopedia and classroom resource books.			•	•	•	•	•	•	154
Geography	Cultural Geography 3 Research and Reports	Lessons in organizing and preparing bulletin board presentations	Prepares bulletin board reports on given countries from around the world.					•	•	•	•	155
Geography	Cultural Geography 3 Research and Reports	Continent Studies	Is able to do a simple country research pertaining to a specific country of study.			•	•	•				156
Geography	Cultural Geography 3 Research and Reports	Continent Studies	Is able to do an in-depth country research pertaining to a specific country of study.					•	•	•	•	157
Geography	Cultural Geography 3 Research and Reports	Lessons in preparing digital presentations to support an oral report	Uses Power Point <sup>™</sup> , or similar digital presentation software, to prepare presentations that illustrate and enhance oral reports.			•	•	•	•	•	•	158

	Montes	ssori Foundat	ion Curriculum Scop	e and Sequ	ıen	.ce:	Ag	çes	<b>3</b> t	o 12	2		
		Commonly, by the e will be able to demo	nd of the span of age or grade l nstrate the following skills, kno	evels indicated l wledge, and/or	oelow unde	v, stu erstar	ident nding	s ;:					
Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #		
Geography	Cultural Geography 3 Research and Reports	Lessons in giving oral presentations and age-appropriate resource materials	Prepares and gives oral reports or given countries from around the world.	1		•	•	•	•	•	159		
Geography	Cultural Geography 4 Research and Reports	Continent Studies	Studies the flags from each country included in the continent of study; researches the history of the countries' flags or researches the history of a specific country's flag; includes the reason for the design and the color of the flag/s; draws and colors the flag/s; and includes whether the flag has changed from the original flag and an explanation of the reasons for change.						•	•	160		
Geography	Cultural Geography 4 Research and Reports	Continent Studies	Studies the different animals and their habitats across a continent. All aspects about the animal/s such as habitat, life cycle, characteristics, environmental impact on humans, and the impact of humans on the animal are included in the study.						•	•	161		
Geography	Cultural Geography 4 Research and Reports	Continent Studies	Studies the different plant species/native plants and their habitats across the continent. All aspects about the plants, such as habitat, life cycle, characteristics, environmental impact on humans, and impact of humans on the species are included in the study.						•	•	162		
Geography	Cultural Geography 4 Research and Reports	Continent Studies	Studies Land and Water Forms of a continent (physical geography of the continent). Study includes the continent's climate and all aspects of meteorology; includes a large detailed physical map of the continent.	f					•	•	163		
Geography	Cultural Geography 4 Research and Reports	Continent Studies	Studies the political geography of a region. This research includes detailed information about the various governments in a certain region or an entire continent. This would probably become a compare/contrast type report. An individual country's government could also be studied, including a timeline through present-day history about the government.	1					•	•	164		
Area	Strand	Lesson/Material	Curriculum Element	Age	3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
-----------	--	---	---	-----	---------	----	-----	-----	-----	-----	-----	-----	------
Geography	Cultural Geography 4 Research and Reports	Continent Studies	Studies the economics of a specific country or region, including information on the various types of goods manufactured/ grown/mined in a specific country or region; researches the various aspects of imports and exports and the impact they have on the country's economy.	1							•	•	165
Geography	Cultural Geography 4 Research and Reports	Continent Studies	Completes an in-depth study so as to be able to draw, label, and color a variety of maps about the continent of study. Maps may include: political map, physical map, biome map, map of animals, map of plants, economic map, map of archeological sites, map of ancient civilizations.	,							•	•	166
Geography	Mapping Skills - Map Reading	World Maps	Locates a given country on a detailed map.				•	•	•	•	•	R	167
Geography	Mapping Skills 4	Flag of the state or province in which one lives	Identifies and matches the flag of the state or province in which he or she lives with a corresponding Puzzle Map or blank outline map of the country.		•	•	•	•					168
Geography	Mapping Skills 4	Model Town or Farm: Matching the layout of model building on two matching map boards	Duplicates a layout from one map board to another, with both boards placed side by side and oriented in the same direction.	)	•	•	•	•					169
Geography	Mapping Skills 4	Model Town or Farm: Matching the layout of model building on two matching map boards	Using the Model Town or Farm, the child duplicates a layout from one board to another, with the two boards separated and oriented in opposite directions.		•	•	•	•					170
Geography	Mapping Skills 4	Model Town or Farm: Matching the layout of model building on two matching map boards	Using the Model Town or Farm, the child duplicates a layout on one board when given a photograph of a layout of the buildings set up on a duplicate board.		•	•	•	•					171
Geography	Mapping Skills 5	Mapping	Using a scale model of the classroom, the child duplicates the layout of the furniture in the classroom on a simple scale model.		•	•	•	•					172

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG 1st	2nd	3rd	4th	5th	6th	ID #
Geography	Mapping Skills 5	Model Town or Farm: Matching the layout of model building on two matching map boards	Using the Model Town or Farm, the child duplicates a layout from one board to another, using drawings of each of the buildings to represent the three- dimensional model buildings found on the other.	•	• •	•					173
Geography	Mapping Skills - Introduction to Compass Directions 1	Map and Compass - Introduction	Identifies the North and South Poles on the Continent Globe and distinguishes between 'movement' on the globe in a northerly or southerly direction.	•	••	•					174
Geography	Mapping Skills - Introduction to Compass Directions 1	Map and Compass - Introduction	Identifies the north, south, east, and west walls of the classroom.	•	• •	•					175
Geography	Mapping Skills - Introduction to Compass Directions 1	Map and Compass - Introduction	On 'command,' the child moves X-steps north, east, south, or west in the classroom.	•	• •	•					176
Geography	Mapping Skills - Introduction to Compass Directions 1	Map and Compass - Introduction	Identifies the directions north, east, south, and west outside on the playground.	•	• •	•					177
Geography	Mapping Skills - Introduction to Compass Directions 2	Map and Compass	Understands and demonstrates the concept of moving to the north, south, east, and west on a map.	•	• •	•	R				178
Geography	Mapping Skills - Using a Compass 1	Map and Compass	Using a simple compass, on command, the child can move X- steps north, east, south, or west in the classroom or outside.	•	• •	•	R				179
Geography	Mapping Skills - Using a Compass 1	Map and Compass	Using a simple compass, the child can identify the directions northeast, northwest, southeast, and southwest outside.	1	٠	•	R				180
Geography	Mapping Skills - Using a Compass 2	Map and Compass	Identifies the relative position of any point on a map as being north, northeast, east, southeast, south, southwest, west, or northwest of any other given point.		•	•	R				181
Geography	Mapping Skills - The Town Game 1	Map and Compass: The Town Game	Using the Town Game, the child places specific model buildings or a model layout of a small village in which all streets have been named, using commands that refer only to their placement on a given street: e.g., "Place the church on Elm Street."	n •	• •	•					182

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Geography	Mapping Skills - The Town Game 2	Map and Compass: The Town Game	Using the Town Game, the child places specific model buildings on the model town, using commands that refer only to their placement at the intersection of two streets.	1 <b>•</b> •	•	•					183
Geography	Mapping Skills - Using an Atlas 4	Map reading - symbols used on maps	Identifies the symbols used to represent parks, schools, hospitals, bridges, and other major points of interest on maps.		•	•	•	•	R		184
Geography	Mapping Skills - Map Reading 1	Map Reading - Measuring Distance	Measures distance between two points on a map using the mileage scale.	2	•	•	•	•	•	•	185
Geography	Mapping Skills - Map Reading 1	Reading a map to find a specific location	Locates a specific location on a simple grid using the horizontal and vertical coordinates printed along the sides.		•	•	•	•	•	•	186
Geography	Mapping Skills - Map Reading 1	Reading a map to find a specific location	Locates a specific location using the grid coordinates given on a road map.		•	•	•	•	•	•	187
Geography	Mapping Skills - Map Reading 2	Reading a map to find directions to a specific location	Reads a street map to determine the best route between two places.		•	•	•	•	•	•	188
Geography	Mapping Skills - Map Reading 2	Reading a map to find directions to a specific location	Uses a local area map to plan the route from school to a field-trip destination, and then uses it to instruct the driver along the way.		•	•	•	•	•	•	189
Geography	Mapping Skills - Map Reading 2	Reading a map to find directions to a specific location	Uses a local street map to find his/her way around an unfamiliar area.		٠	•	•	•	•	•	190
Geography	Mapping Skills - Using an Atlas 4	Map Reading - geographical features portrayed on maps	Uses a pictographic map from an atlas to determine the major features of a given country's terrain: elevation above sea level; mountain ranges; natural barriers to travel; logical land and water transportation routes.		•	•	•	•	•	•	191
Geography	Mapping Skills - Map Reading 5	Map Reading - geographical features portrayed on a map	Reads a contour map to determine the elevation of any given point.		•	•	•	•	•	•	192
Geography	Mapping Skills - Map Reading 5	Map Reading - geographical features portrayed on a map	Determines the direction of river flow on a map that shows elevation.		•	•	•	•	•	R	193
Geography	Mapping Skills - Map Reading 1	Map Reading - Lines of Longitude and Latitude	Locates the Equator and Prime Meridian on a globe or map.		•	•	•	•	•	R	194

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Geography	Mapping Skills - Map Reading 1	Map Reading - Lines of Longitude and Latitude	Identifies the Northern and Southern Hemispheres.		•	•	•	•	•	R	195
Geography	Mapping Skills - Map Reading 1	Map Reading - Lines of Longitude and Latitude	Locates on a globe or map the Tropic of Cancer, Tropic of Capricorn, Arctic Circle, and Antarctic Circle.		•	•	•	•	•	R	196
Geography	Mapping Skills - Map Reading 2	Map Reading - Lines of Longitude and Latitude	Demonstrates that parallels of latitude indicate direction north and south of the Equator.		•	•	•	•	•	R	197
Geography	Mapping Skills Longitude and Latitude 1	Grid Systems	Uses the concepts of absolute location (e.g., using grid systems) and relative location (e.g., direction, reference to neighboring states, and water features).	)	•	•	•	•	•	•	198
Geography	Mapping Skills Longitude and Latitude 1	Map Reading - Lines of Longitude and Latitude	Distinguishes between meridians of longitude and parallels of latitude and uses the Equator and Prime Meridian to identify Northern, Southern, Eastern, and Western Hemispheres.	1	•	•	•	•	•	•	199
Geography	Mapping Skills - Map Reading 1	Map Reading - Lines of Longitude and Latitude	Demonstrates that medians of longitude represent direction east and west of the Prime Meridian.		•	•	•	•	•	R	200
Geography	Mapping Skills - Map Reading 2	Map Reading - Lines of Longitude and Latitude	Locates a point on a map or globe given its longitude and latitude in degrees.		•	•	•	•	•	R	201
Geography	Mapping Skills - Using an Atlas 1	Map reading - national boundaries	Identifies the symbols used to represent national boundaries on a political map.		•	•	•	R			202
Geography	Mapping Skills - Using an Atlas 2	Map reading - state/provincial boundaries within a country	Distinguishes among the differen levels of political subdivisions shown on a map: nations; states or provinces; counties; and cities.	t	•	•	•	•	•	R	203
Geography	Mapping Skills - Using an Atlas 2	Map Reading - recognizing economic and natural resource symbols used on maps	Uses a pictographic map from an atlas to determine a country's major natural resources, agricultural products, and industries by region.		•	•	•	•	•	R	204
Geography	Mapping Skills - Using an Atlas 2	Map Reading - recognizing average rainfall shown symbolically on maps	Uses a pictographic map from an atlas to determine a country's annual rainfall by region.		•	•	•	•	•	R	205

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Geography	Mapping Skills - Using an Atlas 4	Map Reading - recognizing population-density patterns shown symbolically on maps	Uses a pictographic map from an atlas to determine the size of a given country's cities and the pattern of how its population is distributed.		•	•	•	•	•	R	206
Geography	Mapping Skills - Using an Atlas 5	Map Reading - analyzing population patterns from symbols on maps	Analyzes the information given in all of these maps to suggest why the major population centers of a given country were located where they are now.		•	•	•	•	•	•	207
Geography	Mapping Skills - Using an Atlas 5	Map Reading - using an atlas	Uses the atlas' index or table of contents to determine which map would be appropriate for a given task.		•	•	•	•	•	•	208
Geography	Mapping Skills - Map Making 1	History of Map Making	Briefly describes the history of map making: the importance of maps in trade; exploration; warfare before 1900; and how early maps were developed .		•	•	•	•	•	•	209
Geography	Mapping Skills - Map Making 1	Preparing one's own map to scale	Makes an accurate map of the school campus.		•	•	•	•	•	•	210
Geography	Mapping Skills - Map Making 2	Online Mapping Tools	Uses online tools, such as Google Earth <sup>TM</sup> and Google Maps <sup>TM</sup> , to locate and investigate specific places of interest around the world.		•	•	•	•	•	•	211
Geography	Mapping Skills - Map Making 2	GPS Mapping Tools	Uses a GPS navigation system to identify his or her location and plot a route to a destination.		•	•	•	•	•	•	212
Geography	Mapping Skills - Map Making 4	Aerial and Satellite Imaging	Describes how modern cartographers prepare maps from the air and from space.		•	•	•	•	•	•	213
Geography	Mapping Skills - Map Making 4	Using Aerial Photos as Maps	Locates familiar points on the school campus or around the community from an aerial photograph or Google Earth <sup>TM</sup> image.		•	•	•	•	•	•	214
Geography	Mapping Skills - Map Making 5	Contour Maps	Explains the importance and everyday use of contour maps in hiking, construction, and aircraft navigation.		•	•	•	•	•	•	215
Geography	Mapping Skills - Map Reading 5	Contour Maps	Explains how contour maps are prepared by land-surveying methods.		•	•	•	•	•	•	216
Geography	Mapping Skills - Map Making 5	Contour Maps	Constructs a three-dimensional map model of a Contour Map out of overlapping cardboard.		•	•	•	•	•	•	217

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KC	G 1st	2nd	3rd	4th	5th	6th	ID #
Geography	Mapping Skills - Map Reading 5	Contour Maps	Uses a Contour Map (with a compass) on a hike or on a camping trip to determine his/her position and find the best route.		•	•	•	•	•	•	218
Geography	The Geographical Features of the World 1	Locating and identifying the world's major islands	Identifies the major islands of the world on a map.				•	•	•	•	219
Geography	The Geographical Features of the World 1	Locating and identifying the world's major lakes	Identifies the major lakes of the world on a map.				•	•	•	•	220
Geography	The Geographical Features of the World 1	Locating and identifying the world's major deserts	Identifies the major deserts of the world on a map.				•	•	•	•	221
Geography	The Geographical Features of the World 1	Locating and identifying the world's major rivers	Identifies the major rivers of the world on a map.				•	•	•	•	222
Geography	The Geographical Features of the World 1	Identifying geological formations	Identifies the following geological land formations on a three- dimensional model: mountains, foothills, valleys, plateaus, canyons, mesas, river palisades, volcanoes, and crater lakes.			•	•	•	•	•	223
Geography	The Geographical Features of the World 1	Weather and Erosion	Understands and explains the water cycle.			•	•	•	•	•	224
Geography	The Geographical Features of the World 1	Interior Regions of the Earth	Identifies on a chart the interior regions of the Earth.			•	•	•	•	•	225
Geography	The Geographical Features of the World 1	Interior Regions of the Earth	Describes in simple terms what scientists know or believe to be true about the interior regions of the Earth.			•	•	•	•	•	226
Geography	The Geographical Features of the World 1	Continental Shelves	Describes continental shelves in simple terms.				•	•	•	•	227
Geography	The Geographical Features of the World 1	Tectonic Plates and Continental Drift	Explains the concept of tectonic plates and continental drift in simple terms.				•	•	•	•	228
Geography	The Geographical Features of the World 1	Earthquakes	Describes earthquakes and the damage that they can cause.			•	•	•	R		229

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Geography	The Geographical Features of the World 1	Earthquakes	Explains in simple terms that earthquakes are the result of opposing pressure and slippage between two tectonic plates.					•	•	•	•	230
Geography	The Geographical Features of the World 1	Volcanoes	Describes in simple terms what scientists know or believe to be true about volcanoes.			•	•	•	•	•	•	231
Geography	The Geographical Features of the World 1	Volcanoes	Identifies the major regions of volcanic activity in the world today.					•	•	•		232
Geography	Climates and Environments	Climates	Explains and gives examples of how the climate and environment that people live in strongly affects their lives.	-		•	•	•	•			233
Geography	The Geographical Features of the World 1	Weather and Erosion	Explains the concept of how wind, water, and weather erode and deposit soil and sand to continue to shape the surface of the Earth.				•	•	•			234
Geography	Climates and Environments	Biome Study: The Desert	Describes the climate and environment of desert regions around the world.		Ι	•	•	•	•	•	•	235
Geography	Climates and Environments	Biome Study: The Desert	Describes and names some examples of plants that are typically found in the desert.		Ι	•	•	•	•	•	•	236
Geography	Climates and Environments	Biome Study: The Desert	Describes and names some examples of animals that are typically found in the desert.		Ι	•	•	•	•	•	•	237
Geography	Climates and Environments	Biome Study: The Desert	Describes how people dress in the desert.		Ι	•	•	•	•	•	•	238
Geography	Climates and Environments	Biome Study: The Desert	Describes and names some examples of shelter and housing typically found in desert regions.		Ι	•	•	•	•	•	•	239
Geography	Climates and Environments	Biome Study: The Desert	Describes and names some examples of traditional modes of transportation in the desert.		Ι	•	•	•	•	•	•	240
Geography	Climates and Environments	Biome Study: The Desert	Describes the lives of children who live in desert regions.		Ι	•	•	•	•	•	•	241
Geography	Climates and Environments	Biome Study: The Rain Forest	Describes the climate and environment of rain forest regions around the world.		Ι	•	•	•	•	•	•	242

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Geography	Climates and Environments	Biome Study: The Rain Forest	Describes and names some examples of plants that are typically found in the rain forest.	Ι	•	•	•	•	•	•	243
Geography	Climates and Environments	Biome Study: The Rain Forest	Describes and names some examples of animals that are typically found in the rain forest.	Ι	•	•	•	•	•	•	244
Geography	Climates and Environments	Biome Study: The Rain Forest	Describes and names some examples of how people dress in the rain forest.	Ι	•	•	•	•	•	•	245
Geography	Climates and Environments	Biome Study: The Rain Forest	Describes and names some examples of shelter and housing typically found in rain forests.	Ι	•	•	•	•	•	•	246
Geography	Climates and Environments	Biome Study: The Rain Forest	Describes and names some examples of traditional modes of transportation in the rain forest.	Ι	•	•	•	•	•	•	247
Geography	Climates and Environments	Biome Study: The Rain Forest	Describes the lives of children who live in rain forest regions.	Ι	•	•	•	•	•	•	248
Geography	Climates and Environments	Biome Study: Tundra and Polar Regions	Describes the climate and environment of tundra regions around the world.	Ι	•	•	•	•	•	•	249
Geography	Climates and Environments	Biome Study: Tundra and Polar Regions	Describes and names some examples of plants that are typically found in tundra regions around the world.	Ι	•	•	•	•	•	•	250
Geography	Climates and Environments	Biome Study: Tundra and Polar Regions	Describes and names some examples of animals that are typically found in tundra regions around the world.	Ι	•	•	•	•	•	•	251
Geography	Climates and Environments	Biome Study: Tundra and Polar Regions	Describes and names some examples of how people dress in tundra regions around the world.	Ι	•	•	•	•	•	•	252
Geography	Climates and Environments	Biome Study: Tundra and Polar Regions	Describes and names housing typically found in tundra regions around the world.	Ι	•	•	•	•	•	•	253
Geography	Climates and Environments	Biome Study: Tundra and Polar Regions	Describes and names some examples of traditional modes of transportation in tundra regions around the world.	Ι	•	•	•	•	•	•	254
Geography	Climates and Environments	Biome Study: Tundra and Polar Regions	Describe the lives of children who live in tundra regions around the world.	i I	•	•	•	•	•	•	255

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Geography	Climates and Environments	Biome Study: Grasslands	Describes the climate and environment of grassland regions around the world.		Ι	•	•	•	•	•	•	256
Geography	Climates and Environments	Biome Study: Grasslands	Describes and names some examples of plants that are typically found in grassland regions around the world.		Ι	•	•	•	•	•	•	257
Geography	Climates and Environments	Biome Study: Grasslands	Describes and names some examples of animals that are typically found in grassland regions around the world.		Ι	•	•	•	•	•	•	258
Geography	Climates and Environments	Biome Study: Grasslands	Describes and names some examples of how people dress in grassland regions around the world.		Ι	•	•	•	•	•	•	259
Geography	Climates and Environments	Biome Study: Grasslands	Describes and names some examples of shelter and housing typically found in grassland regions around the world.		Ι	•	•	•	•	•	•	260
Geography	Climates and Environments	Biome Study: Grasslands	Describes and names some examples of traditional modes of transportation in grassland regions around the world.		Ι	•	•	•	•	•	•	261
Geography	Climates and Environments	Biome Study: Grasslands	Describes the lives of children who live in grassland regions around the world.		Ι	•	•	•	•	•	•	262
Geography	Climates and Environments	Biome Study: Temperate Forests	Describes the climate and environment of temperate forest regions around the world.		Ι	•	•	•	•	•	•	263
Geography	Climates and Environments	Biome Study: Temperate Forests	Describes and names some examples of plants that are typically found in temperate forest regions around the world.		Ι	•	•	•	•	•	•	264
Geography	Climates and Environments	Biome Study: Temperate Forests	Describes and names some examples of animals that are typically found in temperate forest regions around the world.		Ι	•	•	•	•	•	•	265
Geography	Climates and Environments	Biome Study: Temperate Forests	Describes and names some examples of how people dress in temperate forest regions around the world.		Ι	•	•	•	•	•	•	266
Geography	Climates and Environments	Biome Study: Temperate Forests	Describes and names some examples of shelter and housing typically found in temperate forest regions around the world.		Ι	•	•	•	•	•	•	267
Geography	Climates and Environments	Biome Study: Temperate Forests	Describes and names some examples of traditional modes of transportation in temperate forest regions around the world.		Ι	•	•	•	•	•	•	268

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Geography	Climates and Environments	Biome Study: Temperate Forests	Describes the lives of children who live in temperate forest regions around the world.	Ι	•	•	•	•	•	•	269
Geography	Climates and Environments	Biome Study: Mountainous Regions	Describes the climate and environment of mountainous regions around the world.	Ι	•	•	•	•	•	•	270
Geography	Climates and Environments	Biome Study: Mountainous Regions	Describes and names some examples of plants that are typically found in mountainous regions around the world.	Ι	•	•	•	•	•	•	271
Geography	Climates and Environments	Biome Study: Mountainous Regions	Describes and names some examples of animals that are typically found in mountainous regions around the world.	Ι	•	•	•	٠	•	٠	272
Geography	Climates and Environments	Biome Study: Mountainous Regions	Describes and names some examples of how people dress in mountainous regions around the world.	Ι	•	•	•	•	•	•	273
Geography	Climates and Environments	Biome Study: Mountainous Regions	Describes and names some examples of shelter and housing typically found in mountainous regions around the world.	Ι	•	•	•	•	•	•	274
Geography	Climates and Environments	Biome Study: Mountainous Regions	Describes and names some examples of traditional modes of transportation in mountainous regions around the world.	I	•	•	•	•	•	•	275
Geography	Climates and Environments	Biome Study: Mountainous Regions	Describes the lives of children who live in mountainous regions around the world.	Ι	•	•	•	•	•	•	276
Geography	Climates and Environments	Biome Study: Wetlands	Describes the climate and environment of wetland regions around the world.	Ι	•	•	•	•	•	•	277
Geography	Climates and Environments	Biome Study: Wetlands	Describes and names some examples of plants that are typically found in wetland regions around the world.	I	•	•	•	•	•	•	278
Geography	Climates and Environments	Biome Study: Wetlands	Describes and names some examples of animals that are typically found in wetland regions around the world.	I	•	•	•	•	•	•	279
Geography	Climates and Environments	Biome Study: Wetlands	Describes and names some examples of how people dress in wetland regions around the world.	Ι	•	•	•	•	•	•	280
Geography	Climates and Environments	Biome Study: Wetlands	Describes and names some examples of shelter and housing typically found in wetland regions around the world.	s	•	•	•	•	•	•	281

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 1	KG	1st	2nd	3rd	4th	5th	6th	ID #
Geography	Climates and Environments	Biome Study: Wetlands	Describes and names some examples of traditional modes of transportation in wetland regions around the world.		Ι	•	•	•	•	•	•	282
Geography	Climates and Environments	Biome Study: Wetlands	Describes the lives of children who live in wetland regions around the world.		Ι	•	•	•	•	•	•	283
Geography	Famous Buildings of the World	Three-Part Cards of Famous Buildings of the World	Identifies famous buildings in the nations of North America on a map.	:			•	•	•	•	•	284
Geography	World Capitals	Atlas or Maps	Identifies the capital cities of the nations of North America on a map.				•	•	•	•	R	285
Geography	World Capitals	Atlas or Maps	Identifies the capital cities of the nations of South America on a map.				•	•	•	•	R	286
Geography	World Capitals	Atlas or Maps	Identifies the capital cities of the nations of Europe on a map.				•	•	•	•	R	287
Geography	World Capitals	Atlas or Maps	Identifies the nations of Asia and their capital cities on a map.				•	•	•	•	R	288
Geography	World Capitals	Atlas or Maps	Identifies the nations of Africa and their capital cities on a map.				•	•	•	•	R	289
Geography	World Capitals	Atlas or Maps	Identifies the nations of Oceania and their capital cities on a map.				•	•	•	•	R	290
Geography	Regions of the Country in Which We Live	The City in Which We Live	Investigates and gathers, from many resources, information about the city in which we live.			•	•	•	•	•	•	291
Geography	Regions of the Country in Which We Live	The State or Province in Which We Live	Investigates and gathers information about the state in which we live from many resources, including the encyclopedia, classroom resource books, artifacts, audio-visual materials, and field trips.			•	•	•	•	•	•	292
Geography	Regions of the Country in Which We Live	Investigating the Regions of the Country in Which We Live	Investigates and gathers, from many resources, information about the region of the country in which we live	•	•	•	•	•	•	•	•	293

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Geography	Regions of the Country in Which We Live	Identifying the States or Provinces of the Regions of the Country in Which We Live	Identifies the states/provinces that make up each of the regions of the country in which we live.			•	•	•	•	R	294
Geography	Regions of the Country in Which We Live	The Physical Geography of the Regions of the Country in Which We Live	Describes the physical geography of the land in each of the regions of the country in which we live.			•	•	•	•	R	295
Geography	Regions of the United States	The Major Cities of the Country in Which We Live	Identifies the major cities within each of the states or provinces of the country in which he or she lives.			•	•	•	•	R	296
Geography	Regions of the United States	Age-Appropriate Atlas and Resource Material about the Country in which One Lives	Identifies the major natural resources and industries of each region of the country in which he or she lives.			•	•	•	•	•	297
Geography	Regions of the United States	Cultural Heritage of the Major Cultural Groups Found in the Regions of One's Country	Describe the cultural heritage and traditions of each region of the country in which he or she lives.			•	•	•	•	•	298
Geography	Regions of the United States	History of the Major Cultural Groups Found in the Regions of One's Country	Identifies the ethnic groups that have settled in each reach region of the country in which he or she lives.			•	•	•	•	•	299
Geography	The Imaginary Island Study	Imaginary Island: Positioning on the Globe	Develops an imaginary island, and place it on the Earth, giving its longitude and latitude.				•	•	•	•	300
Geography	The Imaginary Island Study	Imaginary Island: Geographical Features	Develops a scientifically plausible map and description of the interior geographical features of his/her imaginary island.				•	•	•	•	301
Geography	The Imaginary Island Study	Imaginary Island: Topology	Develops a scientifically plausible description of the topography and drainage patterns of his/her imaginary island.				•	•	•	•	302
Geography	The Imagina <del>r</del> y Island Study	Imaginary Island: Coastline	Develops a scientifically plausible map and description of the coastal features of his/her imaginary island.				•	•	•	•	303
Geography	The Imaginary Island Study	Imaginary Island: Climate	Develops a scientifically plausible description of the climate that would be found on his/her imaginary island, explaining what factors would contribute to its climate.				•	•	•	•	304

	Montes	ssori Founda	tion Curriculum Scop	e and Seq	uet	nce	A	ges	3 t	o 12	2
		Commonly, by the will be able to dem	end of the span of age or grade l onstrate the following skills, kno	levels indicated wledge, and/or	belo <sup>.</sup> und	w, sti ersta	iden ndin	ts g:			
Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Geography	The Imaginary Island Study	Imaginary Island: Flora and Fauna	Develops a scientifically plausible description of the flora and fauna of his/her imaginary island and how it came to be there.				•	•	•	•	305
Geography	The Imaginary Island Study	Imaginary Island: Culture of the Inhabitants	Develops a scientifically plausible description of the people and their culture and history on his/her imaginary island and how their ancestors came to live there.				•	•	•	•	306



Montessori's integrated thematic curriculum allows a broad scope of study in the areas of history, geography, and cultural studies.

History begins with the "Big Bang" and the formation of the universe and, within it, of our solar system. Children start with the story of how the world began, how it began to cool, the formation of the atmosphere and oceans, and the emergence of life. They study the story of life on Earth up through the geological eras to the last ice ages and the emergence of the earliest humans.

The children also study the emergence of human beings during the old and new stone ages, the development of the first civilizations, and the universal needs common to all humanity. For older Elementary students, the focus is respectively on early humans, ancient civilizations, and early-American history (or the early history of the many other countries in which Montessori schools are found).

Montessori tries to present a sense of living history at every level through direct hands-on experiences. Students build models of ancient tools and structures, prepare their own manuscripts, make ceremonial masks, and recreate all sorts of artifacts of everyday life of historical eras.

# <image>

Curriculum

Scope & Sequence The History Curriculum

> Experiences such as these make it much easier for Montessori children to appreciate history as it is taught through books.

> While Montessori schools are communities apart from the outside world, in which children can first begin to develop their unique talents, they are also consciously connected to the local, national, and global communities. The goal is to lead each student to explore, understand, and grow into full and active membership in the adult world. Field trips provide opportunities to explore the world outside the classroom. Younger elementary children often use simplified research card material and charts in their studies.

> > Understanding the Scope and Sequence Code ...

The Montessori Foundation • 19600 E SR 64 • Bradenton, FL 34212 941-729-9565 • www.montessori.org

### How to Read the Code of Dots and Letters Used in the Scope and Sequence:

History Curriculum . 2

Montessori does not organize curriculum by the grade level at which topics are to be taught. We assume that children learn at different paces and learn best in different ways. In most cases, students in Montessori programs will work on any given skill or concept over several years. We introduce students to new lessons as soon as they seem to be ready. Likewise, we have a plan of what Montessori students ought to learn and the age/grade levels at which which we expect mastery from most students.

Instead of arranging our curriculum by grade level, we organize it by the subsets of concepts and skills (Strands) and the sequence in which they will be taught. In our Curriculum Scope and Sequence, to the right of the list of curriculum elements, we use a series of vertical columns to represent a given span of ages or grades. We use large dots to indicate the age or grade levels at which we anticipate a given lesson will be presented. Since we do not follow a grade-by-grade curriculum, the age or grade when a child will actually be ready to begin work depends on his or her developmental readiness. Our Dot Code is simply a guideline for Montessori educators.

When viewed in color on a computer, the dots follow a pattern of green, blue, and red, which is repeated at each Montessori three-year program cycle. The color coding makes it somewhat easier to see at which age/grade levels we anticipate children will work on concepts or skills. Normally, students return to work many times over two years or longer before they truly understand what they have studied and retain it over time.

	Montes	so <del>r</del> i Foundat	ion Curriculum Scop	e a	nd S	eq	uet	ice	Ą	ges	3 t	o 12	2
	C V	commonly, by the e vill be able to demo	end of the span of age or grade lonstrate the following skills, kno	evel: wled	s indica lge, and	ted l l/or	belo und	w, sti ersta	uden ndin	ts g:			
Area	Strand	Lesson/Material	Curriculum Element	Age	3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Golden Bead Materials	Demonstrates an understanding of the concept of change between hierarchies, using additive quantities with Golden Bead Materials.		•	•	R						25
Mathematics	Decimal System: Introduction to Place Value: 2	Constructing Quantities with the Golden Beads and Number Cards	Constructs, identifies, and names the quantity (naming correctly from left to right), up to 9,999, represented by an assembly of Golden Beads.		•	•	R						26

As you can see by the example above, we expect that the two Math skills shown (items number 25 and 26) will normally be introduced at age four, and we anticipate that children will continue to work on them over the following year. The "R" shown in the 1st-grade column indicates that we suggest that the teachers ought to review and re-test to see if the child still understands the concept or skill. In some case the symbol "I" is used to indicate that a child should be given a first introduction to a concept or skill at a given age/grade level. Students often work on some concepts and skills over the course of several years.

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
History	Day and Night	Initial experiences: Time	Is able to explain the basic concepts of day and night.	• • •							1
History	Vocabulary of Time	Initial experiences: Time	Uses vocabulary of time in daily conversation.	• • •	•						2
History	Initial Experiences with Time	How long is a year?	Displays an understanding of concept of a year as the time if takes for the Earth to revolve around the Sun through participation in the traditional Montessori Birthday Ceremony.	•••	•						3
History	Initial Experiences with Time	Sensorial exploration of time	Explores the language and measurement of time through various timers and clocks.	• • •	•						4
History	Initial Experiences with Time	Linear Calendar	Collaborates in compiling a linear calendar for the class, which includes points of interest, such as the weather and special events.	•••	•						5
History	Initial Experiences with Time	Tomorrow, today, and yesterday	Explores concepts of tomorrow, today, and yesterday.	• • •	•						6
History	Initial Experiences with Time	Timeline of a Day	Places pictures representing the events in a typical school day in correct order on a Timeline of a Day.	• • •	•						7
History	Initial Experiences with Time	Days of a Week	Begins to use the names of the days of the week in daily conversation.	• •	•						8
History	Initial Experiences with Time	Tell the Days of a Week	Names the days of the week.	• •	•						9
History	Initial Experiences with Time	Names of the Months	Begins to use the names of the months of the year in daily conversation.	• •	•						10
History	Initial Experiences with Time	Months of the Year	Can sing the Months-of-the-Year song.	• •	•						11
History	Initial Experiences with Time	Reading words relating to time	Reads cards that list the days of the week and places them in correct order.	• •	•						12

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
History	Initial Experiences with Time	Reading words relating to time	Reads cards that list the months of the year and places them in correct order, either in a column or in radial format around a central 'sun.'	• •	•						13
History	Initial Experiences with Time	Teaching Calendars	Works with the Teaching Calendar, placing month names, days of the week, and numerals in sequence.	• •	•						14
History	Initial Experiences with Time	Year and Seasons	Sorts pictures of outdoor scenes into the different seasons that they represent.	• •	•						15
History	Initial Experiences with Time	Year and Seasons with the Timeline of a Year	Relates seasons to months of the year using the Timeline of a Year.	• •	•						16
History	Initial Experiences with Time	Timeline of a Year	Places pictures representing events throughout the year onto the Timeline of the Year.	• •	•						17
History	Initial Experiences with Time	Personal Timeline	Makes a Personal Timeline, placing pictures of events from his, or her, own life in correct order.	• •	•						18
History	Initial Experiences with Time	Timeline of People's Ages	Places cards representing individuals of various ages in numbered spaces on a timeline showing how humans age.	• •	•						19
History	Initial Experiences with Time	How long is a year?	Displays an understanding that a year is the time that it takes the Earth to go around the Sun one time.	Ι	•	•					20
History	Initial Experiences with Time	How long is a year?	Displays knowledge that a year comprises 12 months, or 365 1/4 days.	• •	•	•	•	•	•	•	21
History	Timeline of a year	Year and Seasons	Discusses how the community in which he, or she, lives typically changes during each of the seasons, including: weather, appropriate dress, traditional activities, and major holidays.	Ι	•	•					22
History	Timeline of a year	Year and Seasons	Places a series of seasonal pictures depicting typical outdoor scenes and activities on the Timeline of a Year according to season.	Ι	•						23
History	The Seasons	Year and Seasons	Relates seasonal changes in weather to the orbit of the Earth around the Sun and the tilt of the Earth's axis [cross-reference Geography curriculum].		•	•					24

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
History	Past and Present Chart	Understanding the Past	Places pictures on a Past and Present Chart to develop an understanding of the past.	• •	•	•						25
History	Understanding the past	Tell me about when you were a child	Has conversations with older people; listens to stories about what life was like when they were children.	• •	•	•						26
History	Understanding the past	Artifacts from the Past	Explores and discusses images and artifacts from the past.	•	•	•						27
History	Understanding the Past	Does this exist today?	Sorts objects or images of animal according to whether they exist today or are from a time in the distant past.	s	•	•						28
History	Does this exist today?	Timeline of History	Explores and discusses images of transport, homes, clothing, etc. from different periods (relating to fundamental needs).	•	•	•						29
History	Timeline of History	Family tree	Collaborates in producing a personal family tree.	•	•	•						30
History	Understanding the Past	Comparing ages of people we know	Compares the ages of people in his/her own family using the Golden Bead 100 Chain.	•	•	•						31
History	Understanding the Past	What came first?	Listens to stories about people who lived long ago and shows an awareness and interest in what/who came before or after some other event or person.	•	•	•						32
History	What came first?	Activities in a Typical Day	Looks at and discusses pictures o activities in a typical day, discussing which happen in the morning, afternoon, and evening; and discusses which comes before and after, etc.	f	•	•						33
History	Telling Time on a Clock	Introduction to the Montessori Teaching Clock	Places number pieces in the face of the Montessori Teaching Clock	•	•	•						34
History	Matching Pictures of Daily Activities to the Timeline of a Day	The Timeline of a Day	Lays out pictures of activities in a typical day and matches them to the times indicated on a timeline.	•	•	•						35
History	Digital Clock	A digital clock	Uses a digital clock or watch to tell time.	•	•	•						36

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
History	Telling Time on a Clock	Tells time to the hour	Tells time to the hour using the Montessori Teaching Clock.	•	•	•						37
History	Telling Time on a Clock	Tells time to the half-hour	Tells time to the half-hour using using the Montessori Teaching Clock.	•	•	•	•					38
History	Telling Time on a Clock	Tells time to the quarter-hour	Tells time to the quarter-hour using the Montessori Teaching Clock.	•	•	•	•					39
History	Telling Time on a Clock	Tells time to within five minute	Tells time to within five minutes using the Montessori Teaching Clock.	•	•	•	•	•				40
History	Telling Time on a Clock	Tells time to the minute	Tells time to the minute using the Montessori Teaching Clock.	•	•	•	•	•	•			41
History	Calculating Equivalent Values in Units of Time	The Clock	Calculates the equivalent values in time from seconds to minutes, minutes to hours, and hours to days, and vice versa.	1					Ι	•	٠	42
History	European 24-Hour Time System	The Montessori Teaching Clock	Tells time using European 24- hour system.						Ι	•	•	43
History	Time Zones	Time Zones	Uses internet-based time-zone converter to explore concept of time zones.							Ι	•	44
History	Time Zones	Time Zones	Uses internet-based simulation, which shows progress of day/night as Earth rotates to explore concept of time zones.							Ι	•	45
History	Time Zones	Time Zones	Displays an understanding of the relationship between position of the Sun, the Earth's rotation, and local time.							Ι	٠	46
History	Time Zones	Time Zones	Calculates the current time in another time zone based on longitude.							Ι	•	47
History	Calendars	Linear Calendar	Uses a Linear (day-by-day) Calendar to record a simple history of the class's year: daily temperature, weather, birthdays, special events. At the end of each month and at the end of the year, they are laid out as a timeline and reviewed.	•	•	•	•	•	•			48

Area	Strand	Lesson/Material	Curriculum Element	Age	3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
History	Calendars	Linear Calendar	Events recorded on a linear timeline (such as weather) are represented in various ways, using graphs, charts, etc. (cross- reference Geography and Mathematics).	g				•	•	•			49
History	Calendars	Standard Calendar	Uses a standard calendar to plan and record activities.			Ι	•	•	•				50
History	Personal Timelines	Personal Timeline	Creates a personal history by placing photos of him/herself at various ages on the Personal Time Line.		•	•	•	•					51
History	Personal Timelines	Personal Timeline	Creates own personal timeline with photos of him/herself at various ages and lists of events that have been important in his/her life.				•	•	•	•	•		52
History	Family History	Family tree	Gathers family data about immediate family and constructs two-generation family tree; data collected orally from parents and inserted into pro-forma family sheet.	a			•	•	•	•	•		53
History	Family History	Family tree	Compiles short biographies of family members who appear on the two-generation family tree; presents biographies either orally or in a small book.				•	•	•	•	•		54
History	Family History	Family tree	Interviews parents about events that occurred during their lives and compiles this information in a portfolio of family history.				•	•	•	•	•		55
History	Family History	Family tree	Gathers replicas of source documents for family history to verify oral information; uses these for further in-depth study, taking family tree and biographical records back further generations.	e					•	•	•	•	56
History	Family History	Family tree	Researches events in which own ancestors were involved and presents findings to class in chosen format.								•	•	57
History	Introduction to Historical Research	Is this source reliable?	Differentiates between different types of sources and comments on their reliability.					•	•	•	•	•	58
History	Introduction to Historical Research	Primary and Secondary Sources	Uses primary and secondary sources to reconstruct an event in the past.	ı				•	•	•	•	•	59

Area	Strand	Lesson/Material	Curriculum Element	Age 31	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
History	Archeology	Archeological Findings	Explores archeological findings as a source for historical knowledge, including material remains, artifacts, and buildings.	3				•	•	•	٠	٠	60
History	Radiocarbon Dating	Scientific Dating	Explores radiocarbon dating, DNA analysis, and other scientific and technological methods of finding out about the past.					•	•	•	•	•	61
History	American Historical Holidays	Native American Indian Heritage Day	Participates in celebration and discussion of Native American Indian Heritage Day. Year A/annually in the USA	•	•	•	•	•	•	•	•	•	62
History	American Historical Holidays	Columbus Day	Participates in celebration and discussion of Columbus Day. Year A/annually in the USA	•	•	•	•	•	•	•	•	•	63
History	American Historical Holidays	Veteran's Day	Participates in celebration and discussion of Veteran's Day. Year A/annually in the USA	•	•	•	•	•	•	•	٠	•	64
History	Traditional American and International Holidays and Celebrations	Winter Solstice / Winterfest	Participates in celebration and discussion of the Winter Solstice (NOTE: Some schools adopt simple celebrations of the other seasonal solstices as well.) annually.	•	•	•	•	•	•	•	•	•	65
History	American Historical Holidays	Martin Luther King's Day and African-American History Month	Participates in celebration and discussion of Martin Luther King's Day and African- American History month. Year A/annually in the USA	•	•	•	•	•	•	•	•	•	66
History	American Historical Holidays	Abraham Lincoln's Birthday	Participates in celebration and discussion of Abraham Lincoln's Birthday. Year A/annually in the USA	•	•	•	•	•	•	•	•	•	67
History	American Historical Holidays	George Washington's Birthday	Participates in celebration and discussion of George Washington's Birthday. Year A/annually in the USA	•	•	•	•	•	•	•	٠	٠	68
History	Historical Holidays	Renaissance Fair	Participates in celebration and discussion of a Renaissance Fair. Year B	•	•	•	•	•	•	•	•	•	69
History	Civilizations	Researching Historical Civilizations	Uses a historical atlas to gather information about the natural environment of a civilization.						•	•	•	•	70

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
History	Civilizations	Researching Historical Civilizations	Uses a historical atlas to determine the sites of a past civilization's major population centers; offers thoughtful suggestions as to why they were located where they were.				•	•	•	•	71
History	Civilizations	Researching Historical Civilizations	Takes simple, but accurate, notes of essential information about a historical civilization as it is presented in lectures or films.				•	•	•	•	72
History	Civilizations	Researching Historical Civilizations	Uses the encyclopedia and library reference books to gather background information about a historical civilization.	r			•	•	•	•	73
History	Civilizations	Researching Historical Civilizations	Applies research skills to investigate historical civilizations as part of a small collaborative team of students; presents the results of his or her research to the entire class.				•	•	•	•	74
History	Civilizations	Researching Historical Civilizations	Works with materials and activities to expand knowledge and satisfy interest, understanding, and appreciation regarding a historical civilizations		•	•	•	•	•	•	75
History	Civilizations	Researching Historical Civilizations	Researches and recreates a menu of typical food or feast of a civilization in a given historical period.		•	•	•	•	•	•	76
History	Civilizations	Researching Historical Civilizations	Reads and researches classical tales, myths, and legends of a civilization in a given historical period.				•	•	•	•	77
History	Civilizations	Researching Historical Civilizations	Researches and constructs model of buildings, dioramas, tools, and artifacts of a civilization from a given historical period.	S			•	•	•	•	78
History	Civilizations	Researching Historical Civilizations	Researches and is able to prepare artwork imitating that of a civilization from a given historica period.	1			•	•	•	•	79
History	Civilizations	Researching Historical Civilizations	Researches and is able to perform dance or music, imitating that of a civilization from a given historical period.	1			•	•	•	•	80
History	Civilizations	Researching Historical Civilizations	Researches and is able to perform a play from or about a historical civilization.	1			•	•	•	•	81

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age	4 KG	1st	2nd	3rd	4th	5th	6th	ID #
History	Civilizations	Researching Historical Civilizations	Prepares a well-written research report on a civilization: records in own words key information from reference material; prepares an outline followed by a research report; provides a table of contents; provides a bibliography; illustrates the report in some way; communicates the report to a group in some way.					•	•	•	•	82
History	Civilizations	Ancient Civilizations: Historical Time Frame	Determines the period during which a civilization developed, flourished, and declined.					•	•	•	•	83
History	Civilizations	Ancient Civilizations: Historical Time Frame	Describes the major civilizations in existence during a given historical period.					•	•	•	•	84
History	Civilizations	Ancient Civilizations: Historical Time Frame	Is able to describe how many centuries ago a specific ancient civilization flourished.					•	•	•	•	85
History	Civilizations	Ancient Civilizations: Natural Environment	Is able to describe what the land looked like during the period when a given ancient civilization existed.					•	•	•	•	86
History	Civilizations	Ancient Civilizations: Natural Environment	Is able to describe what the climate was like during the period when a given ancient civilization existed.					•	•	•	•	87
History	Civilizations	Ancient Civilizations: Natural Environment	Is able to describe what plants and animals were present in during the period when a given ancient civilization existed.					•	•	•	•	88
History	Civilizations	Ancient Civilizations: Daily Life - Clothing	Is able to describe the type of clothing worn by the people of a given ancient civilization.					•	•	•	•	89
History	Civilizations	Ancient Civilizations: Daily Life - Diet	Is able to describe the type of food that was eaten by a specific ancient civilization.					•	•	•	•	90
History	Civilizations	Ancient Civilizations: Daily Life - Buildings	Is able to describe the types of homes and other structures that were build by a given ancient civilization.					•	•	•	•	91
History	Civilizations	Ancient Civilizations: Daily Life - Homes	Is able to describe how homes were furnished and decorated by a specific ancient civilization.					•	•	•	•	92
History	Civilizations	Ancient Civilizations: Daily Life - Tools	Is able to describe what tools and household utensils were used by a given ancient civilization.							•	•	93

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
History	Civilizations	Ancient Civilizations: Daily Life - Families	Is able to describe what the family structure was like in a given ancient civilization.				•	•	•	•	94
History	Civilizations	Ancient Civilizations: Daily Life - Education	Is able to describe what kind of education was given to children from a given ancient civilization.				•	•	•	•	95
History	Civilizations	Ancient Civilizations: Human Activities - Agriculture	Is able to describe what kind of agriculture was practiced, what crops were grown, and what animals were raised by a given ancient civilization.				•	٠	•	•	96
History	Civilizations	Ancient Civilizations: Human Activities - Industry	Is able to describe what kinds of industry were developed by a given ancient civilization.				•	•	•	•	97
History	Civilizations	Ancient Civilizations: Human Activities - Commerce	Is able to describe how daily commerce was conducted, what items were traded in their markets, and whether some form of currency was used by a given ancient civilization.	I			•	•	•	•	98
History	Civilizations	Ancient Civilizations: Human Activities - Trade and Transportation	Is able to describe what kind of trade occurred, what was traded, with whom they traded, how goods were transported, and which transportation routes were followed by a given ancient civilization.				•	•	•	•	99
History	Civilizations	Ancient Civilizations: Human Activities - Inter-Cultural Influences	Is able to determine what was 'borrowed' from contact with neighbors and more distant civilizations by a given ancient civilization.				•	•	•	•	100
History	Civilizations	Ancient Civilizations: Human Activities - Recreation	Is able to determine in what kind of recreational activities were enjoyed by a given ancient civilization.	ls			•	•	•	•	101
History	Civilizations	Ancient Civilizations: Origins of the Civilization	Is able to determine from where the people of a given ancient civilization originally came.				•	٠	•	•	102
History	Civilizations	Ancient Civilizations: Environmental Influences on Society	Is able to determine how well the environment suited a given ancient civilization's needs.	e			•	•	•	•	103
History	Civilizations	Ancient Civilizations: Government	Is able to determine the kind of government a given ancient civilization had.				•	•	•	•	104

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age	e 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
History	Civilizations	Ancient Civilizations: Class Structure	Is able to determine the type of class structure a given ancient civilization had.					•	•	•	•	105
History	Civilizations	Ancient Civilizations: War and Self-Defense	Is able to determine a given ancient civilization's attitude towards war and defense: Were they a peaceful or warlike people What kinds of weapons and strategies did they employ? What sort of military did they have? What wars did they fight?'	)				•	•	•	•	106
History	Civilizations	Ancient Civilizations: Language	Is able to describe the language the people of a given ancient civilization spoke.					•	•	•	•	107
History	Civilizations	Ancient Civilizations: Written Language	Is able to describe if and how the people of a given ancient civilization wrote down their thoughts.					•	•	•	•	108
History	Civilizations	Ancient Civilizations: Religious Beliefs	Is able to describe what a given ancient civilization's religion was like, what holidays were celebrated, and how their religion affected their daily lives.					•	•	•	•	109
History	Civilizations	Ancient Civilizations: Stories and Myths	Is able to describe what the literature of a given ancient civilization was like and can retell some of the most famous tales, myths, and legends.					•	•	•	•	110
History	Civilizations	Ancient Civilizations: Art, Music, Dance, and Theater	Is able to describe what the art and music of a given ancient civilization was and identifies examples of the art and music (if any have survived).					•	•	•	•	111
History	Civilizations	Ancient Civilizations: Discoveries and Invention	Is able to describe any inventions or discoveries of a given ancient civilization.					•	•	•	•	112
History	Civilizations	Ancient Civilizations: Famous Men and Women	Is able to describe some of the famous men and women of a given ancient civilization and explain their contributions to the civilization.					•	•	•	•	113
History	Civilizations	Ancient Civilizations: Archeological Evidence	Explains the archeological evidence that supports the information acquired and why it can be considered factual.					•	•	•	•	114
History	Civilizations	Ancient Civilizations: Archeological Evidence	Is able to describe the greatest 'mysteries' still confronting scientists about a given ancient civilization.					•	•	•	•	115

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
History	Civilizations	Middle Ages	Undertakes research into the features of the Middle Ages.				•	•	•	•	116
History	Civilizations	Renaissance Period	Undertakes research into the culture of Europe during the Renaissance.				•	•	•	•	117
History	The Story of the Coming of Humans	Upper Stone Age	Researches to discover the culture and technology of the Upper Old Stone Age.	e I			•	•	•	•	118
History	The Story of the Coming of Humans	Middle Stone Age	Researches to discover the culture and technology of the Middle Stone Age.	e			•	•	•	•	119
History	The Story of the Coming of Humans	New Stone Age	Researches to discover the culture and technology of the New Stone Age.	e 2			•	•	•	•	120
History	Civilizations	Copper and Bronze Age	Researches to discover the culture and technology of the Copper and Bronze Age.	e			•	•	•	•	121
History	Civilizations	Civilizations	Researches to discover the culture and technology of the Iron Age.	e			•	•	•	•	122
History	American Studies	American Studies: Pre-Columbian - Paleo-Indians	Researches to discover the culture and technology of Paleo-Indians.	e			•	•	•	•	123
History	American Studies	American Studies: Pre-Columbian - Mayas	Researches to discover the culture and technology of the Mayas.	e			•	•	•	•	124
History	American Studies	American Studies: Pre-Columbian - Aztecs	Researches to discover the culture and technology of the Aztecs.	e			•	•	•	•	125
History	American Studies	American Studies: Pre-Columbian - Incas	Researches to discover the culture and technology of the Incas.	e			•	•	•	•	126
History	American Studies	American Studies: Pre-Columbian - Inuit	Researches to discover the culture and technology of the Inuit Indians.	e			•	•	•	•	127
History	American Studies	American Studies: Native Americans of the Woodlands	Researches to discover the culture and technology of the Indigenous Peoples of the Woodlands.	e s			•	•	•	•	128

Area	Strand	Lesson/Material	Curriculum Element	Age 3.	Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
History	American Studies	American Studies: Native Americans of the Plains	Researches to discover the culture and technology of the Indigenous People of the Plains.	6					•	•	•	•	129
History	American Studies	American Studies: Native Americans of the Southwest	Researches to discover the culture and technology of Indigenous Peoples of the Southwest.	2					•	•	•	•	130
History	American Studies	The Spanish and Portuguese Explorers	Understands and explains the motives that led the Spanish, Portuguese, and other European discoverers to search for an ocear route to China and India.	1					•	•	•	•	131
History	American Studies	Viking explorers	Understands and describes the cultural motivations that led the Vikings to venture westward into the Atlantic and attempt to establish permanent settlements before Columbus.	)					•	•	•	•	132
History	American Studies	Early Exploration	Understands and describes the difficulties and dangers faced by sea captains and explorers in the years before accurate navigation charts were developed and local ports of safe harbor and supplies were established.						•	•	•	•	133
History	American Studies	Early Exploration	Understands and describes the nature of the sailing ships used by the early explorers, discussing their speed through the water, their working layout, and the living conditions aboard.	7					•	•	•	•	134
History	American Studies	Impact of Colonization on the Indigenous Peoples	Understands and describes how European explorers contributed to the destruction of the sophisticated indigenous civilizations that they encountered.						•	•	•	•	135
History	American Studies	Colonization	Understands and explains the motives that led various European nations to establish permanent colonies in North and South America.						•	•	•	•	136
History	American Studies	Vikings Explorers	Researches and explains the story of the Vikings in North America.						•	•	•	•	137
History	American Studies	Columbus	Researches and explains the story of Columbus.						•	•	•	•	138

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KC	1st	2nd	3rd	4th	5th	6th	ID #
History	American Studies	Explorers	Researches and explains the story of Cortez, Pizzaro, Desoto, Ponce De Leon, and the other Conquistadors.	r			•	•	•	•	139
History	American Studies	Explorers	Researches and explains the story of the major English explorers.				•	•	•	•	140
History	American Studies	Explorers	Researches and explains the story of the major French explorers: the Priests and Voyageurs.				•	•	•	•	141
History	American Studies	Colonial America	Understands and retells the story of the founding of the first English settlement in what is now the United States at Jamestown, Virginia.	7			•	•	•	•	142
History	American Studies	Colonial America	Understands and retells the story of the Pilgrims and the founding of the Plymouth Colony.				•	•	•	•	143
History	American Studies	Colonial America	Understands and describes the relationship between the early American colonists and the Indigenous Peoples.				•	٠	•	•	144
History	American Studies	Colonial America	Identifies the original 13 American colonies.				•	•	•	•	145
History	American Studies	Colonial America	Researches and describes the lifestyle, climate, housing, transportation, social structure, tools, and economies of the New England, Middle Atlantic, and Southern colonies.				•	•	•	•	146
History	American Studies	Colonial America	Researches and describes the institution of slavery as it was practiced in America.				•	٠	•	•	147
History	American Studies	Colonial America	Researches and identifies the areas where most slaves were taken from and the process of the slave trade.	a C			•	٠	•	•	148
History	American Studies	Colonial America	Researches and describes the life of typical field hands, house slaves, craftsmen, and freemen in Colonial America.				•	•	•	•	149
History	American Studies	Colonial America	Researches and explains the economic and social rationales that were used to justify the institution of slavery.				•	٠	•	•	150

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
History	American Studies	Colonial America	Researches and describes the role of women in early America.	2			•	•	•	•	151
History	American Studies	Colonial America	Researches and identifies the major cities of Colonial America.				•	•	•	•	152
History	American Studies	American Revolution	Researches and describes the major forces and events that led to the Declaration of Independence and the American Revolution.				•	•	•	•	153
History	American Studies	American Revolution	Identifies and briefly describes the roles of the following American patriots: George Washington, Thomas Jefferson, John Adams, Benjamin Franklin, Paul Revere, and Thomas Paine.				•	•	•	•	154
History	American Studies	American Revolution	Summarizes the importance of the ideas contained in the Declaration of Independence.				•	•	•	•	155
History	American Studies	Westward Expansion	Describes the process of the United States' westward territoria expansion.	1			•	•	•	•	156
History	American Studies	Westward Expansion	Describes the motivations that led the settlers to move west and the difficulties that they encountered.				•	•	•	•	157
History	American Studies	Colonization	Describes the relationship between the United States government, the pioneers, and the Native American tribes.				•	٠	•	•	158
History	American Studies	Industrial Revolution	Describes the development of American industry and the growth of the cities.				•	•	•	•	159
History	American Studies	Civil War	Describes the factors that led to the Civil War: slavery, regional jealousies, economics, and perceived cultural differences.				•	٠	٠	•	160
History	American Studies	Civil War	Describes in simple terms the major events of the Civil War, and identify the roles of Robert E. Lee, Jefferson Davis, Abrahan Lincoln, and Ulysses S. Grant.	1			•	•	•	•	161
History	American Studies	Industrial Revolution	Describes the major inventions and changes in lifestyle that developed between 1800 and 1920				•	•	•	•	162

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 K	G 1st	2nd	3rd	4th	5th	6th	ID #
History	American Studies	World Wars	Describes the major issues and events of the First and Second World Wars.				•	•	•	•	163
History	American Studies	Industrial Revolution	Describes the major inventions and changes in lifestyle that developed after 1920 to the present day.				•	•	•	•	164
History	American Studies	Culture	Identifies the major European, African, and Asian sources of the American people.				•	•	•	•	165
History	American Studies	American Inventors	Identifies the most famous American inventors.				•	•	•	•	166
History	American Studies	State History	Researches the history of the stat in which the school is located and describes the major events in its history.	e 1			•	•	•	R	167
History	American Studies	American Government	Names the presidents of the United States and briefly describes their contribution to the nation's history.	2			•	•	•	•	168
History	American Studies	American Government	Describes the relative roles of national, state, and local governments in our lives.				•	٠	•	•	169
History	American Studies	American Government	Describes in simple terms the functions of the three branches o government in the United States.	f			•	•	•	•	170
History	American Studies	American Government	Describes and explains in broad terms how the legal system functions, including the roles of judges, lawyers, and juries.				•	•	•	•	171
History	American Studies	American Government	Explains the rights guaranteed to all Americans under the US Constitution.				•	•	•	•	172
History	Civilizations	Historical Civilizations	NOTE: Elementary Montessori Guides present introductory lessons about ancient civilizations to class. Studies can include ancient Egypt, Babylonia, Assyrians, Persia, the Indus Valley (Dravidian Civilizations), China, Phoenicians, Greece, and Rome.	5			•	•	•	•	173
History	American Studies	American Government	Describes the process of electing local, state, and national government officials.				•	•	•	•	174

	Montessori Foundation Curriculum Scope and Sequence: Ages 3 to 12													
	Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:													
Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #		
History	American Studies	American Government	Explains and describes the roles played by mayors, county commissioners, governors, and the President of the United States.					•	•	•	•	175		
History	American Studies	American Government	Explains and describes the roles played by town councils, county commissions, state legislatures, and the Congress of the United States.					•	•	•	•	176		



# Curriculum Scope & Sequence The Cosmic Curriculum

Cosmic Studies involves a wide range of lessons and units of exploration designed to give students a sense of the story of the universe, how life developed, and the story of our history.

We introduce these lessons and experiences in the hope that they will inspire our in our students a sense of wonder and awaken interest, appreciation, and understanding. This is what Montessori had in mind when she wrote:

"The secret of good teaching is to regard the child's intelligence as a fertile field in which seeds may be sown, to grow under the beat of flaming imagination. Our aim is not only to make the child understand, and still less to force him to memorize, but so to touch his imagination as to enthuse him to his innermost core. We do not want complacent pupils, but eager ones. We seek to sow life in the child rather than theories, to help him in his growth, mental and emotional as well as physical, and for that we must offer grand and lofty ideas to the human mind."

We bear witness to the way our students respond to our key lessons and all the many experiences that we arrange, but in this area we do not have any distinct expectation that they must master and retain what we shared.





Great Lessons are five key areas of interconnected studies traditionally presented to all elementary Montessori students in the form of inspiring stories and related experiences and research projects. They include the story of how the world came to be, the development of life on the Earth, the story of humankind, the development of language, and the development of writing, and the development of mathematics.



The Montessori Foundation • 19600 E SR 64 • Bradenton, FL 34212 941-729-9565 • www.montessori.org Cosmic Studies Curriculum . 2

### How to Read the Code of Dots and Letters Used in the Scope and Sequence:

Montessori does not organize curriculum by the grade level at which topics are to be taught. We assume that children learn at different paces and learn best in different ways. In most cases, students in Montessori programs will work on any given skill or concept over several years. We introduce students to new lessons as soon as they seem to be ready. Likewise, we have a plan of what Montessori students ought to learn and the age/grade levels at which which we expect mastery from most students.

Instead of arranging our curriculum by grade level, we organize it by the subsets of concepts and skills (Strands) and the sequence in which they will be taught. In our Curriculum Scope and Sequence, to the right of the list of curriculum elements, we use a series of vertical columns to represent a given span of ages or grades. We use large dots to indicate the age or grade levels at which we anticipate a given lesson will be presented. Since we do not follow a grade-by-grade curriculum, the age or grade when a child will actually be ready to begin work depends on his or her developmental readiness. Our Dot Code is simply a guideline for Montessori educators.

When viewed in color on a computer, the dots follow a pattern of green, blue, and red, which is repeated at each Montessori three-year program cycle. The color coding makes it somewhat easier to see at which age/grade levels we anticipate children will work on concepts or skills. Normally, students return to work many times over two years or longer before they truly understand what they have studied and retain it over time.

	Montess	sori Foundat commonly, by the e vill be able to demo	ion Curriculum Scop and of the span of age or grade h instrate the following skills, kno	e a evels wled	and S s indica lge, and	eq ated	uet belo	nce: w, str ersta	Ag uden ndin	ges ts g:	3 t	o 12	2
Area	Strand	Lesson/Material	Curriculum Element	Age	3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Golden Bead Materials	Demonstrates an understanding of the concept of change between hierarchies, using additive quantities with Golden Bead Materials.		•	•	R					6	25
Mathematics	Decimal System: Introduction to Place Value: 2	Constructing Quantities with the Golden Beads and Number Cards	Constructs, identifies, and names the quantity (naming correctly from left to right), up to 9,999, represented by an assembly of Golden Beads.		•	•	R						26

As you can see by the example above, we expect that the two Math skills shown (items number 25 and 26) will normally be introduced at age four, and we anticipate that children will con- tinue to work on them over the following year. The "R" shown in the 1st-grade column indi- cates that we suggest that the teachers ought to review and re-test to see if the child still understands the concept or skill. In some case the symbol "I" is used to indicate that a child should be given a first introduction to a concept or skill at a given age/grade level. Students often work on some concepts and skills over the course of several years.

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Cosmic Studies	Laws of the Universe 1	Experiments 1 - 20	Observes Laws of the Universe experiments and records observations: 1 Cold - Freezing.		•	•					1
Cosmic Studies	Laws of the Universe 1	Experiments 1 - 20	Observes Laws of the Universe experiments and records observations: 2 The Formation o a Star.	f	•	•					2
Cosmic Studies	Laws of the Universe 1	Experiments 1 - 20	Observes Laws of the Universe experiments and records observations: 3 Solid-Liquid-Gas.		•	•					3
Cosmic Studies	Laws of the Universe 1	Experiments 1 - 20	Observes Laws of the Universe experiments and records observations: 4 Liquid - Viscous.		•	•					4
Cosmic Studies	Laws of the Universe 1	Experiments 1 - 20	Observes Laws of the Universe experiments and records observations: 5 Passing from Liquid to Gas.		•	•					5
Cosmic Studies	Laws of the Universe 1	Experiments 1 - 20	Observes Laws of the Universe experiments and records observations: 6 Passing from Gas to Liquid to Solid.	3	•	•					6
Cosmic Studies	Laws of the Universe 1	Experiments 1 - 20	Observes Laws of the Universe experiments and records observations: particles that attract each other and particles that do not attract each other.	t	•	•					7
Cosmic Studies	Laws of the Universe 1	Experiments 1 - 20	Observes Laws of the Universe experiments and records observations: 8 Mixture.		•	•					8
Cosmic Studies	Laws of the Universe 1	Experiments 1 - 20	Observes Laws of the Universe experiments and records observations: 9 Chemical Combination of Gas.		•	•					9
Cosmic Studies	Laws of the Universe 1	Experiments 1 - 20	Observes Laws of the Universe experiments and records observations: 10 Crystallization.		•	•					10
Cosmic Studies	Laws of the Universe 1	Experiments 1 - 20	Observes Laws of the Universe experiments and records observations: 11 Chemical Reaction.		•	•					11
Cosmic Studies	Laws of the Universe 1	Experiments 1 - 20	Observes Laws of the Universe experiments and records observations: 12 Precipitation.		•	•					12
Cosmic Studies	Laws of the Universe 1	Experiments 1 - 20	Observes Laws of the Universe experiments and records observations: 13 Properties of Solid, Liquid and Gas.		•	•					13

Copyright 2012 The Montessori Foundation

Area	Strand	Lesson/Material	Curriculum Element	Age 3 A	Age 4 KO	G 1st	2nd	3rd	4th	5th	6th	ID #
Cosmic Studies	Laws of the Universe 1	Experiments 1 - 20	Observes Laws of the Universe experiments and records observations: 14 Elastic, Plastic, Rigid.			•	•					14
Cosmic Studies	Laws of the Universe 1	Experiments 1 - 20	Observes Laws of the Universe experiments and records observations: 15 Matter Changes its State at Different Temperatures.			•	•					15
Cosmic Studies	Laws of the Universe 1	Experiments 1 - 20	Observes Laws of the Universe experiments and records observations: 16a Law of Gravity			•	•					16
Cosmic Studies	Laws of the Universe 1	Experiments 1 - 20	Observes Laws of the Universe experiments and records observations: 16b Density and the Law of Gravity.	е		•	•					17
Cosmic Studies	Laws of the Universe 1	Experiments 1 - 20	Observes Laws of the Universe experiments and records observations: 17 Rapidity of Cooling Depends on the Mass of the Bodies.			•	•					18
Cosmic Studies	Laws of the Universe 1	Experiments 1 - 20	Observes Laws of the Universe experiments and records observations: 18 Volcano.			•	•					19
Cosmic Studies	Laws of the Universe 1	Experiments 1 - 20	Observes Laws of the Universe experiments and records observations: 19 Matter Expands When Heated.			•	•					20
Cosmic Studies	Laws of the Universe 1	Experiments 1 - 20	Observes Laws of the Universe experiments and records observations: 20 Quick Evaporation.			•	•					21
Cosmic Studies	Laws of the Universe 1	Experiments 1 - 20	Repeats experiments relating to the Laws of the Universe, working alone or with another child.			•	•					22
Cosmic Studies	Story of the Universe 1	The Origin of the Universe and the Earth	Listens to the story "God with No Hands" (or similar impressionistic cosmic story) to gain first impressions of deep time and the origin of all things, as well as interrelatedness of all; older children revisit this to re- inspire own research.			•	•	•	R	R	R	23
Cosmic Studies	Laws of the Universe 2	Composition of the Universe	Displays an awareness that matter is comprised of molecules, that molecules are made up of atoms, and that atoms of different elements combine to form compounds (Dance of Molecules).	:			•	•	•	•	•	24
Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #	
-------------------	----------------------------	--	--	----------------	-----	-----	-----	-----	-----	-----	------	
Cosmic Studies	Laws of the Universe 2	Composition of the Universe	Repeats chemical law experiments 9, 10 & 11 and applies additional knowledge of atoms, molecules, etc.	5			•	•	R	R	25	
Cosmic Studies	Laws of the Universe 2	Composition of the Universe	Repeats physical law experiments 2 - 7 and discusses these in context of additional knowledge of the formation of stars and phases of matter.				•	•	R	R	26	
Cosmic Studies	Laws of the Universe 2	Composition of the Universe	Displays an awareness of the concept of space-time and recognizes the equation $e = mc^2$ .				•	•	R	R	27	
Cosmic Studies	Story of the Universe 2	The Origin of the Universe and the Earth	Discusses the origin of the Universe, displaying a beginning knowledge (Big Bang Theory/Great Radiance/Higgs Event).		•	•	•	•	R	R	28	
Cosmic Studies	Story of the Universe 2	The Origin of the Universe and the Earth	Participates in discussions and stories regarding the formation of stars.		•	•	•	•	R	R	29	
Cosmic Studies	Story of the Universe 2	The Origin of the Universe and the Earth	Explores the different types of stars, and how different elements are formed in different stars, uses the term "Stellar Nucleosynthesis" in context, displays an awareness that all the elements in the universe (other than hydrogen and helium) were created by dying stars – that we are, very literally, made of stardust.		•	•	•	•	•	•	30	
Cosmic Studies	Story of the Universe 2	Impressionistic Charts: First Great Lesson	Participates in lessons, stories, and discussion: Chart 1 The Large Flaming Sun, the Small Earth.		•	•					31	
Cosmic Studies	Story of the Universe 2	Impressionistic Charts: First Great Lesson	Participates in lesson, stories, and discussion: Chart 2a The Earth in the Solar System.		•	•					32	
Cosmic Studies	Story of the Universe 2	Earth Walk around the Sun	Explains that the Earth revolves around the Sun, a concept initially developed from the traditional Montessori Birthday Ceremony.	7		•	•				33	
Cosmic Studies	Story of the Universe 2	Dance of the Solar System	Explains that the eight planets revolve around the Sun, a concept initially developed through the Dance of the Solar System.			•	•				34	

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Cosmic Studies	Story of the Universe 2	The Planets and Their Moons	Explains that many of the planets have moons, which orbit their home planet, while the planet, itself, revolves around the Sun, a concept initially developed through the Dance of the Cosmos.			•	•				35
Cosmic Studies	Story of the Universe 2	Impressionistic Charts: First Great Lesson	Uses the concepts <i>galaxy, nebula,</i> <i>star, asteroid, comet, planet, moon</i> , etc. accurately; these concepts could be acquired through work with three-part cards, books, internet sources, conversation, etc.		•	•	•	R	R	R	36
Cosmic Studies	Story of the Universe 2	Impressionistic Charts: First Great Lesson	Researches the formation of the Solar System using various resources and communicates findings through chosen media.		•	•	•	R	R	R	37
Cosmic Studies	Story of the Universe 2	Impressionistic Charts: First Great Lesson; Experiments and Supporting Materials	Researches the planets using various resources and communicates findings through chosen media.		•	•	•	R	R	R	38
Cosmic Studies	Story of the Universe 2	Impressionistic Charts: First Great Lesson; Experiments and Supporting Materials	Displays a beginning knowledge of the concept of the "Goldilocks Zone," regarding the position of the Earth in the Solar System.	5	•	•	•	R	R	R	39
Cosmic Studies	Story of the Universe 2	Impressionistic Charts: First Great Lesson; Experiments and Supporting Materials	Explores the relative sizes of different bodies in the universe and the distances between these bodies; expresses large numbers as exponents; calculates ratios (e. g.," If the Earth were the size of a pea, how far would it be to the Sun?").	1	•	•	•	R	R	R	40
Cosmic Studies	Story of the Universe 2	Impressionistic Charts: First Great Lesson; Experiments and Supporting Materials	Explores the relative sizes of different bodies in the universe and the distances between these bodies; expresses large numbers as exponents; calculates ratios - working from a mathematical perspective.				•	•	•	•	41
Cosmic Studies	Story of the Universe 2	Impressionistic Charts: First Great Lesson; Experiments and Supporting Materials	Expresses the distance between stars and galaxies in light years, displaying an awareness of the concept of the speed of light.				•	R	R	R	42

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Cosmic Studies	Structure of the Earth	Impressionistic Charts: First Great Lesson; Experiments and Supporting Materials	Participates in lessons, stories and discussion: Charts 3 - 5 the Cosmic Dance; Volcanoes; Volcanoes and the Sun, relating these charts with Experiment 19 (first level).	l	•	•	•	R	R	R	43
Cosmic Studies	Structure of the Earth	Impressionistic Charts: First Great Lesson; Experiments and Supporting Materials	Participates in lessons, stories and discussion: Charts 3 - 5 The Cosmic Dance; Volcanoes; Volcanoes and the Sun, relating these charts with Experiment 5a and 5b (Second Level - Warm Air Rises).			•	•	R	R	R	44
Cosmic Studies	Structure of the Earth	Impressionistic Charts: First Great Lesson; Experiments and Supporting Materials	Participates in lessons, stories and discussion: Chart 6a The Layers of the Earth, relating the chart to Experiment 16a and 16b (First Level Gravity).	l		•	•	R	R	R	45
Cosmic Studies	Structure of the Earth	Impressionistic Charts: First Great Lesson; Experiments and Supporting Materials	Participates in lessons, stories and discussion: Chart 6a The Layers of the Earth, relating the chart to Second Level experiments 8a and 8b.	l		•	•	R	R	R	46
Cosmic Studies	Dating of the Earth	History of the Dating of the Earth	Displays a beginning knowledge of the formation of the atmosphere and hydrosphere, which shows understanding of the interrelatedness of all things.		•	•	•	R	R	R	47
Cosmic Studies	Structure of the Earth	Impressionistic Charts: First Great Lesson; Experiments and Supporting Materials	Represents knowledge and understanding of the structure of the Earth through chosen media (diagrams, models, stories, own experiments) relating to the various layers and volcanoes.		•	•	•	R	R	R	48
Cosmic Studies	Structure of the Earth	Impressionistic Charts: First Great Lesson; Experiments and Supporting Materials	Uses terminology relating to the layers of the Earth, type of volcanoes, and seismic events accurately.		•	•	•	R	R	R	49
Cosmic Studies	Structure of the Earth	Impressionistic Charts: First Great Lesson; Experiments and Supporting Materials	Uses more advanced terminology (e.g., <i>barysphere, lithosphere, hydrosphere, atmosphere</i> ) accurately.				•	•	•	•	50
Cosmic Studies	Structure of the Earth	Impressionistic Charts: First Great Lesson; Experiments and Supporting Materials	Participates in lessons, stories and discussion relating to Second Level experiments 9a and 9b (Weight of Bodies, Gravity, Specific Weight).	I	•	•	•	R	R	R	51

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Cosmic Studies	Structure of the Earth	Impressionistic Charts: First Great Lesson; Experiments and Supporting Materials	Participates in lessons, stories and discussion relating to Second Level experiments: 10 Sedimentation.		•	•	•	R	R	R	52
Cosmic Studies	Structure of the Earth	Impressionistic Charts: First Great Lesson; Experiments and Supporting Materials	Participates in lessons, stories and discussion relating to Second Level experiments: 11 - 13: Formation of Mountains; Fractures in the Earth's Crust; Stratification of Rocks.		•	•	•	R	R	R	53
Cosmic Studies	Structure of the Earth	Impressionistic Charts: First Great Lesson; Experiments and Supporting Materials	Explores and classifies rock specimens into three major categories: Igneous, Sedimentary, and Metamorphic.		•	•	•	R	R	R	54
Cosmic Studies	Structure of the Earth	Impressionistic Charts: First Great Lesson; Experiments and Supporting Materials	Identifies rock types found in own area.		•	•	•	R	R	R	55
Cosmic Studies	Structure of the Earth	Impressionistic Charts: First Great Lesson; Experiments and Supporting Materials	Explores and communicates an understanding of the water cycle, weathering, erosion, and deposition and the role they played, and continue to play, on the shaping of the surface of the Earth.		•	•	•	R	R	R	56
Cosmic Studies	Structure of the Earth	Impressionistic Charts: First Great Lesson; Experiments and Supporting Materials	Participates in lessons, stories and discussion relating to Chart 7: The Sun and the Earth; Second level experiment 14: Solar Energy.		•	•	•	R	R	R	57
Cosmic Studies	Structure of the Earth	Impressionistic Charts: First Great Lesson; Experiments and Supporting Materials	Participates in lessons, stories and discussion relating to Chart 8 : Fire and Ice; Second Level experiment 15: Illumination of the Earth; and Chart 9: Perpendicular and Oblique rays of the Sun.		•	•	•	R	R	R	58
Cosmic Studies	Structure of the Earth	Impressionistic Charts: First Great Lesson; Experiments and Supporting Materials	Participates in lessons, stories, and discussion about Continental Drift.		•	•	•	R	R	R	59

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Cosmic Studies	Dating of the Earth	History of the Dating of the Earth	Listens to stories about how we know the ages of the Earth, rocks, moon, etc.; participates meaningfully and recounts knowledge to others.		•	•	•	R	R	R	60
Cosmic Studies	Dating of the Earth	Time Scales in Earth History	Displays an awareness of the Geologic Time Scale.		•	•	•	R	R	R	61
Cosmic Studies	Dating of the Earth	Time Scales in Earth History	Works with Timeline of Earth History with first card sets.		•	•	•	•	•	•	62
Cosmic Studies	Dating of the Earth	Time Scales in Earth History	Relates Timeline of Earth History to the Clock of Eras.	7	•	•	•	•	•	•	63
Cosmic Studies	Dating of the Earth	Time Scales in Earth History	Places definition cards on the Clock of Eras.		•	•	•	٠	•	•	64
Cosmic Studies	Dating of the Earth	Time Scales in Earth History	Works with the Timeline of Earth History with advanced card sets of pictures and text.	1	•	•	•	•	•	•	65
Cosmic Studies	Dating of the Earth	Time Scales in Earth History	Names the eras in Earth's history and relates them to some notable events.			•	•	•	•	•	66
Cosmic Studies	Dating of the Earth	Time Scales in Earth History	Relates knowledge of Continental Drift to the various stages and formation of continents over time (e.g., Pangaea, Gondwana, etc.).	e		•	•	R	R	R	67
Cosmic Studies	Cosmology	Naming of the Planets	Participates in discussions and stories regarding the naming of the planets and other astronomical bodies.			•	•	•	•	•	68
Cosmic Studies	Cosmology	History of Astronomical Discoveries	Participates in discussions and stories regarding the history of discoveries concerning the Solar System and beyond.			•	•	•	•	•	69
Cosmic Studies	Cosmology	History of Astronomical Discoveries	Keeps up to date with latest discoveries in cosmology.			•	•	R	R	R	70
Cosmic Studies	The Origins of Life on Earth	Characteristics of Living things	Differentiates nonliving objects from living organisms with reference to the fundamental characteristics of life.			•	•	•	•	•	71

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KC	i 1st	2nd	3rd	4th	5th	6th	ID #
Cosmic Studies	The Origins of Life on Earth	Characteristics of Living Things	Participates in lessons, stories, and discussions regarding the origin of life on Earth; older children can connect this to carbon as the major building block of organic molecules; relates advent of life to elements created in stars, presence of water on Earth, and the concept of the "Goldilocks Zone."	r		•	•	•	•	•	72
Cosmic Studies	The Origins of Life on Earth	Characteristics of Living things	Participates in lessons, stories, and discussions regarding the reciprocal influences of the environment on emerging life forms and the effect those life forms had on the physical structure of the Earth; begins to display an awareness of the Cosmic Plan.			•	•	•	•	•	73
Cosmic Studies	The Story of Life on Earth	Materials to support understanding of evolution of life on Earth - parallel to timeline	Explores collections of models of prehistoric life forms and real and replica fossils.	E 1	•	•	•	R			74
Cosmic Studies	The Story of Life on Earth	Materials to support understanding of evolution of life on Earth - parallel to timeline	Relates replica fossils to artists impressions (or models) of the complete animal.		•	•	•	R			75
Cosmic Studies	The Story of Life on Earth	Materials to support understanding of evolution of life on Earth - parallel to timeline	Displays an understanding of the formation of fossils.		•	•	•	R			76
Cosmic Studies	The Story of Life on Earth	Materials to support understanding of evolution of life on Earth - parallel to timeline	Displays an understanding of the formation of fossils and how rock strata and various dating techniques help us to understand when various animals lived.	X	•	•	•	R			77
Cosmic Studies	The Story of Life on Earth	Materials to support understanding of evolution of life on Earth - parallel to timeline	Displays an understanding of how the boundaries between the different eras, periods, etc. indicate cataclysmic events in the Earth's history/extinction events.		٠	•	•	R	R	R	78
Cosmic Studies	The Story of Life on Earth	Materials to support understanding of evolution of life on Earth - parallel to timeline	Relates knowledge of classification of modern life forms to corresponding prehistoric classifications.			•	•	•	•	•	79

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Cosmic Studies	The Story of Life on Earth	Materials to support understanding of evolution of life on Earth - parallel to timeline	Discusses, identifies, and researches modern life forms, which are very similar to prehistoric counterparts, and explores how these relate using various resources, including timelines and cladograms (e.g., magnolia trees, cockroach, dragonfly; shark, ginkgo balboa, cycads).				•	•	•	•	80
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place during the Hadean Eon.		•	•	•	•	•	R	81
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Archeaon Eon; how these conditions supported early life; and how that life, in turn, contributed to changes in the environment.		•	•	•	•	•	R	82
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Phanerozoic Eon; how these conditions supported early life; and how that life, in turn, contributed to changes in the environment.	7	•	•	•	•	•	R	83
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Paleozoic Era; how these conditions supported early life; and how that life, in turn contributed to changes in the environment.		•	•	•	•	•	R	84
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness that the Phanerozoic Eon is divided into eras, which are, in turn, divided into periods.		•	•	•	•	•	R	85
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Cambrian Period; how these conditions supported early life; and how that life, in turn, contributed to changes in the environment.		•	•	•	•	•	R	86
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the significance of the Precambrian/Cambrian boundary.		•	•	•	•	•	R	87

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Ordovician Period; how these conditions supported early life; and how that life, in turn, contributed to changes in the environment.		•	•	•	•	•	R	88
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Silurian Period; how these conditions supported early life; and how that life, in turn, contributed to changes in the environment.		•	•	•	•	•	R	89
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Devonian Period; how these conditions supported early life; and how that life, in turn, contributed to changes in the environment.	7	•	•	•	•	•	R	90
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Carboniferous Period; how these conditions supported early life; and how that life, in turn, contributed to changes in the environment.		•	•	•	•	•	R	91
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Permian Period; how these conditions supported early life; and how that life, in turn, contributed to changes in the environment.		•	•	•	•	•	R	92
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Mesozoic Era; how these conditions supported early life; and how that life, in turn, contributed to changes in the environment.		•	•	•	•	•	R	93

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Triassic Period; how these conditions supported early life; and how that life, in turn, contributed to changes in the environment.		•	•	•	•	•	R	94
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Jurassic Period; how these conditions supported early life; and how that life, in turn, contributed to changes in the environment.		•	•	•	•	•	R	95
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Cretaceous Period; how these conditions supported early life; and how that life, in turn, contributed to changes in the environment.		•	•	•	•	•	R	96
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Cenozoic Era; how these conditions supported early life; and how that life, in turn, contributed to changes in the environment.		•	•	•	•	•	R	97
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Tertiary Period; how these conditions supported early life; and how that life, in turn, contributed to changes in the environment.		•	•	•	•	•	R	98
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Paleocene Period; how these conditions supported early life; and how that life, in turn, contributed to changes in the environment.	7	•	•	•	•	•	R	99

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Eocene Epoch; how these conditions supported early life; and how that life, in turn, contributed to changes in the environment.			•	•	•	•	•	R	101
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Oligocene Epoch; how these conditions supported early life; and how that life, in turn, contributed to changes in the environment.	v		•	•	•	•	•	R	102
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Neogene Period; how these conditions supported early life; and how that life, in turn, contributed to changes in the environment.			•	•	•	•	•	R	103
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Miocene Epoch; how these conditions supported early life; and how that life, in turn, contributed to changes in the environment.			•	•	•	•	•	R	104
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Pliocene Epoch; how these conditions supported early life; and how that life, in turn, contributed to changes in the environment.			•	•	•	•	•	R	105
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Quaternary Period; how these conditions supported early life; and how that life, in turn, contributed to changes in the environment.			•	•	•	•	•	R	106

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Pleistocene Epoch; how these conditions supported early life; and how that life, in turn, contributed to changes in the environment.		•	•	•	•	•	R	107
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the conditions that existed and the changes that took place on Earth during the Holocene Epoch; how these conditions supported life; and how that life, in turn, contributed to changes in the environment.	,	•	•	•	•	•	R	108
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the current conditions and the changes that are taking place on Earth during the Ecozoic Era how these conditions support life and how that life, in turn, contributes to changes in the environment.	;	•	•	•	•	•	R	109
Cosmic Studies	The Story of Life on Earth	Timeline of Life and related materials	Displays an awareness of the significance of the major extinction events.		•	•	•	•	•	R	110
Cosmic Studies	The Story of Life on Earth	Distribution of life forms on Earth	Displays a beginning knowledge of the influence of continental drift on the distribution of plants and animals and on the migration of humans.						•	•	111
Cosmic Studies	The Story of the Coming of Humans	How early humans adapted to their environment	Participates in lessons, stories, and discussions about how early humans adapted to the environment and how they met their fundamental human needs (the Hand Chart).		•	•					112
Cosmic Studies	The Story of the Coming of Humans	What does it mean to be human?	Displays an awareness of the features that distinguish human beings from other animals.		•	•	•	R	R	R	113
Cosmic Studies	The Story of the Coming of Humans	Subspecies of early humans	Identifies modern humans as the subspecies Homo Sapiens, Genus Homo, Family Hominidae, Order Primates.	8	•	•	•	R	R	R	114
Cosmic Studies	The Story of the Coming of Humans	Classifying modern humans	Classifies modern humans in terms of the subspecies Homo Sapiens, Species: Sapiens, Genus Homo, Family Hominidae, Order Primates.	:	•	•	•	R	R	R	115

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Cosmic Studies	The Story of the Coming of Humans	Cladograms	Locates modern humans on a cladogram.		•	•	•	R	R	R	116
Cosmic Studies	The Story of the Coming of Humans	Fossils of early humans	Names some of the fossil relatives of modern humans.		•	•	•	R	R	R	117
Cosmic Studies	The Story of the Coming of Humans	Development of modern humans	Displays an awareness of the development of modern humans from early primate ancestors, using the vocabulary <i>hominid</i> and <i>homonin</i> correctly.		•	•	•	R	R	R	118
Cosmic Studies	The Story of the Coming of Humans	Modern and prehistoric mammals	Researches and prepares a compare/contrast document about characteristics of modern and prehistoric mammals that coexisted with early humans.				•	•	•	•	119
Cosmic Studies	The Story of the Coming of Humans	Differences between early humans and people today	Researches and prepares a compare/contrast document about characteristics of what scientists believe to be early humans and how they differ from modern-day humans.	1			•	•	•	•	120
Cosmic Studies	The Story of the Coming of Humans	The Story of Lucy - Australopithecus Afarensis	Researches and prepares a document in any medium about Australopithecus Afarensis and has an understanding that "Lucy" is the benchmark against which all other human evolutionary studies are based.	,			•	•	•	•	121
Cosmic Studies	The Story of the Coming of Humans	Differences between Homo Habilis and Australopithecus Afarensis (Lucy)	Researches and prepares a document in any medium about Homo Habilis and is able to discuss differences between this hominid and "Lucy."				•	•	•	•	122
Cosmic Studies	The Story of the Coming of Humans	Differences between Homo Habilis, Australopithecus Afarensis, and Homo Erectus	Researches and prepares a document in any medium about Homo Erectus and is able to discuss differences and similarities between this hominid and "Lucy" and Homo Habilis.				•	•	•	•	123
Cosmic Studies	The Story of the Coming of Humans	Homo Neaderthalensis	Researches and prepares a document in any medium about Homo Neaderthalensis and is able to discuss differences and similarities between this hominid and previously researched hominids.				•	•	•	•	124

	(	Commonly, by the e will be able to demo	end of the span of age or grade l onstrate the following skills, kno	evel wlee	s indica lge, and	ited   d/or	belo und	w, sti lersta	uden ndin	ts g:			
Area	Strand	Lesson/Material	Curriculum Element	Age	3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Cosmic Studies	The Story of the Coming of Humans	Cro-Magnon	Researches and prepares a document in any medium about Cro-Magnon Man and is able to discuss differences and similarities between this hominid and previously researched hominids.						•	•	•	•	125
Cosmic Studies	The Story of the Coming of Humans	Differences and similarities between primates and humans	Researches and discusses the similarities and differences between primates and humans; can discuss the following: how they work as a group; where they live; how they communicate; how they care for their young; age of adulthood; childbearing age; care of their young.						•	•	•	•	126
Cosmic Studies	The Story of the Coming of Humans	Timeline of Humans	Timeline of Humans: Participates in lessons, stories, and discussion: about the coming of humans, relating the changes that took place from the common ancestor after divergence from the great apes.	5			•	•	•	•	•	•	127
Cosmic Studies	The Story of the Coming of Humans	Timeline of Humans	Displays an awareness of the major events in human development and their impact (e.g., development of spoken language; discovery and control of fire; use of clothing and cultural adornment; burial of dead; etc.).				•	•	•	•	•	•	128
Cosmic Studies	The Story of the Coming of Humans	Timeline of Humans	Researches and discusses various aspects of the major events of human development and technology that may include: shelter and housing; use of fire; clothing; transportation; defense; food; family and social lives; forms of art; etc. (all aspects of culture) for early humans.						•	•	•	•	129
Cosmic Studies	The Story of the Coming of Humans	Timeline of Humans	Displays an awareness that early humans are not all direct ancestors of modern humans, but that there are significant gaps in the fossil record; shows an interest in following discoveries that add to our understanding of the human past.				•	•	•	•	•	•	130
Cosmic Studies	Timelines	Dating Historical Events	Explores different ways of recording the dates on which events occurred (e.g., "Two years before I was born, etc.").		•	•	•						131

Area	Strand	Lesson/Material	Curriculum Element	Age (	3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Cosmic Studies	Timelines	Dating Historical Events	Understands and explains why we record dates as being either BCE or CE (using Golden Bead Chains).	2			•	•	•	•	•	R	132
Cosmic Studies	Timelines	Dating Historical Events	Is able to identify given centuries along the Timeline of History.		•	•	•	•	•	•	•	R	133
Cosmic Studies	Timelines	Timeline of History	Places the historical picture and text cards along the Timeline of History on the centuries indicated as the periods from which they are taken.	1					•	•	•	R	134
Cosmic Studies	Interdependence	Law of Order and Love	Participates meaningfully in discussions of the interdependence of all cosmic agents (possibly using Chart of Order and Love, Tin Can Game, or other similar materials).				•	•	•				135
Cosmic Studies	Fundamental Needs of People	The Needs of People	Expresses own needs.	•	•	•							136
Cosmic Studies	Fundamental Needs of People	The Needs of People	Displays an awareness of needs of others.	f	•	•							137
Cosmic Studies	Fundamental Needs of People	The Needs of People	Uses vocabulary of needs confidently and appropriately.		•	•							138
Cosmic Studies	Fundamental Needs of People	The Needs of People	Participates meaningfully in discussions relating to needs (both in class context and in relation to events outside of class).		•	•	•						139
Cosmic Studies	Fundamental Needs of People	The Needs of People	Categorizes common needs of humans using appropriate materials.		•	•	•	•					140
Cosmic Studies	Fundamental Needs of People	The Needs of People	Compiles branching diagram of needs of people classified by spiritual and material needs.				•	•	•				141
Cosmic Studies	Fundamental Needs of People	The Needs of People	Displays an awareness and works with the Fundamental Needs Chart to explore the material needs of people in different cultures.				•	•	•				142
Cosmic Studies	Fundamental Needs of People	The Needs of People	Displays an awareness of the changes over time in the ways people meet their needs regarding clothing, nutrition, culture, defense, etc.	5			•	•	•				143

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Cosmic Studies	Fundamental Needs of People	The Needs of People	Researches and discusses the changes over time in the way people meet their needs regarding clothing, nutrition, culture, defense, etc.	r 5				•	•	•	•	144
Cosmic Studies	Fundamental Needs of People	The Needs of People	Researches and discusses the differences in lifestyles between hunter-gatherer, nomadic- herder, and agrarian societies.	,				•	•	•	•	145
Cosmic Studies	Fundamental Needs of People	The Needs of People	Describes and discusses how the development of agriculture and the formation of permanent settlements affected patterns of human culture: the development of specialized skills and roles; more time devoted to tasks other than day-to-day survival; and evolution of higher technology and richer culture.					•	•	•	•	146
Cosmic Studies	Fundamental Needs of People	The Needs of People	Describes and discusses the factors influencing the location of settlements (such as on the banks of lakes and streams or in strategically defensible locations).	E				•	•	•	•	147
Cosmic Studies	Fundamental Needs of People	The Needs of People	Uses the Timeline of History with card sets that provide pictures and simple text for the various Needs of People areas of study.	1			•	•	•			148
Cosmic Studies	Fundamental Needs of People	The Needs of People	Researches and discusses how people in different cultures meet the fundamental human needs.					•	•	•	•	149
Cosmic Studies	Fundamental Needs of People	Needs of People: Food	Describes how people satisfy their need for food around the world under different environmental conditions.					•	•	•	•	150
Cosmic Studies	Fundamental Needs of People	Needs of People: Shelter	Describes and gives examples of how people satisfy their need for shelter and housing around the world under different environmental conditions.					•	•	•	•	151
Cosmic Studies	Fundamental Needs of People	Needs of People: Clothing	Describes how people satisfy their need for clothing around the world under different environmental conditions.	2				•	•	•	•	152
Cosmic Studies	Fundamental Needs of People	Needs of People: Transportation	Describes how people satisfy their need for transportation around the world under different environmental conditions.					•	•	•	•	153
Cosmic Studies	Fundamental Needs of People	Self-Defense	Describes how people have satisfied their need for self- defense in the past and present.					•	•	•	•	154

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age	4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Cosmic Studies	Fundamental Needs of People	Needs of People: Daily Life of Children around the World	Describes and gives examples of the daily life for children around the world under different environmental conditions.					•	•	•	•	155
Cosmic Studies	Fundamental Needs of People	Needs of People: Art	Describes and gives examples how people satisfy their need to create visual art around the world under different environmental conditions.					•	•	•	•	156
Cosmic Studies	Fundamental Needs of People	Needs of People: Music	Describes and gives examples of how people satisfy their need to create music around the world under different environmental conditions.					•	•	•	•	157
Cosmic Studies	Fundamental Needs of People	Needs of People: Jewelry and Self- Adornment	Describes and gives examples how people satisfy their need to create jewelry and self-adornment around the world under different environmental conditions.	t				•	•	•	•	158
Cosmic Studies	Fundamental Needs of People	Needs of People: Government	Describes and gives examples how people satisfy their need for some sort of orderly government around the world under different environmental conditions.					•	•	•	•	159
Cosmic Studies	Fundamental Needs of People	Needs of People: Religious Traditions Found around the World	Describes how people satisfy their need to for religion and religious expression around the world under different environmental conditions.					•	•	•	•	160



# Curriculum

Scope & Sequence The Science Curriculum



Even very young children want to know 'why?' They ask a questions constantly. The cultivation of curiosity and imagination in our students is the essence of science in Montessori schools at every level.

Our curriculum is focused on the process and issues of science: the study of life, the laws and structure of the universe, and how humanity has struggled throughout history to put our understanding to practical use.

At the same time, we seek to captivate the child's mind and fill her with wonder at the grandeur of the universe, the simple beauty of the physical laws, and the miracle of life. We work to inspire within our students a deep sense of the philosophy of science as the process by which mankind has built up our store of knowledge. We teach them to ask questions and follow a systematic process of observation, collection and analysis of data, and controlled experiments. In this way, Montessori prepares children for a lifetime of learning.

Montessori science is known for introducing children to advanced topics in the early years, from how the world began to basic principles of zoology, botany, chemistry, physics, and astronomy.



The Montessori Foundation • 19600 E SR 64 • Bradenton, FL 34212 941-729-9565 • www.montessori.org

# Science Curriculum . 2

#### How to Read the Code of Dots and Letters Used in the Scope and Sequence:

Montessori does not organize curriculum by the grade level at which topics are to be taught. We assume that children learn at different paces and learn best in different ways. In most cases, students in Montessori programs will work on any given skill or concept over several years. We introduce students to new lessons as soon as they seem to be ready. Likewise, we have a plan of what Montessori students ought to learn and the age/grade levels at which which we expect mastery from most students.

Instead of arranging our curriculum by grade level, we organize it by the subsets of concepts and skills (Strands) and the sequence in which they will be taught. In our Curriculum Scope and Sequence, to the right of the list of curriculum elements, we use a series of vertical columns to represent a given span of ages or grades. We use large dots to indicate the age or grade levels at which we anticipate a given lesson will be presented. Since we do not follow a grade-by-grade curriculum, the age or grade when a child will actually be ready to begin work depends on his or her developmental readiness. Our Dot Code is simply a guideline for Montessori educators.

When viewed in color on a computer, the dots follow a pattern of green, blue, and red, which is repeated at each Montessori three-year program cycle. The color coding makes it somewhat easier to see at which age/grade levels we anticipate children will work on concepts or skills. Normally, students return to work many times over two years or longer before they truly understand what they have studied and retain it over time.

	Montes	so <del>r</del> i Foundat	ion Curriculum Scop	e a	nd S	eq	uet	ice	: A	ges	3 t	o 12	2
	C V	Commonly, by the e vill be able to demo	end of the span of age or grade l onstrate the following skills, kno	evel wlec	s indica lge, and	ited l/or	belo und	w, sti lersta	uden ndin	ts g:			
Area	Strand	Lesson/Material	Curriculum Element	Age	3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Golden Bead Materials	Demonstrates an understanding of the concept of change between hierarchies, using additive quantities with Golden Bead Materials.		•	•	R						25
Mathematics	Decimal System: Introduction to Place Value: 2	Constructing Quantities with the Golden Beads and Number Cards	Constructs, identifies, and names the quantity (naming correctly from left to right), up to 9,999, represented by an assembly of Golden Beads.		•	•	R						26

As you can see by the example above, we expect that the two Math skills shown (items number 25 and 26) will normally be introduced at age four, and we anticipate that children will continue to work on them over the following year. The "R" shown in the 1st-grade column indicates that we suggest that the teachers ought to review and re-test to see if the child still understands the concept or skill. In some case the symbol "I" is used to indicate that a child should be given a first introduction to a concept or skill at a given age/grade level. Students often work on some concepts and skills over the course of several years.

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd ·	4th	5th	6th	ID #
Science	Physical Properties of Substances 1	Sorting Objects	Sorts objects according to self- chosen criteria.	• • •	•						1
Science	Physical Properties of Substances 1	Sorting Objects by Material	Sorts objects according to the materials from which they are made (e.g., wood, metal and plastic).	• • •	•						2
Science	Physical Properties of Substances 1	Sorting: Natural or Manufactured	Sorts objects according to whether they are natural or manufactured.	• •	•						3
Science	Physical Properties of Substances 1	Sorting: Hard or Soft	Sorts objects according to whether they are hard or soft.	• •	•						4
Science	Physical Properties of Substances 1	Sorting: Vocabulary	Talks with adult or other children about sorting activities and practices appropriate vocabulary.	• •	•						5
Science	Physical Properties of Substances 2	Solid, Liquid, Gas	Explores properties of matter by working with and classifying materials according to solid/liquid/gas.	• •	•						6
Science	Physical Properties of Substances 2	Pouring Air	Explores one of the properties of air by immersing an apparently empty pitcher upside down into a tank of water and then gently tilting to release the air.	f 1	•						7
Science	Physical Properties of Substances 2	Magnetic/Non- Magnetic	Explores the effects of magnetism on various materials through working with the Magnets Activity.	• •	•						8
Science	Physical Properties of Substances 2	Exploring Mixtures	Explores how something can be changed by adding something else. After observing and discussing the experiment, the child is able to either replicate the process alone or present it to another child (mixing ingredients [e.g., water and corn starch]) that results in notable change of state)	••	•	R					9
Science	Physical Properties of Substances 2	Introduction to Temperature and Different States of Matter	Explores how something can be changed by changing the temperature. After observing and discussing the experiment, the child is able to either replicate the process alone or present it to another child (freezing water, watching ice melt, etc.).	•••	•	R					10

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Science	Physical Properties of Substances 2	Introduction to Viscosity	Explores viscosity by dropping a marble into jars containing syrup, vegetable oil, and water: After observing and discussing the experiment, the child is able to either replicate the process alone or present it to another child.	• •	•	R					11
Science	Physical Properties of Substances 2	Conservation of Volume	Explores conservation of volume by pouring a constant volume of water into different-shaped containers.	• •	•	R					12
Science	Physical Properties of Substances 2	Introduction to Rigidity and Elasticity	Explores properties of rigidity and elasticity by working with and classifying according to rigidity and elasticity. After observing and discussing the experiment, the child is able to either replicate the process alone or present it to another child.	1 • •	•	R					13
Science	Physical Properties of Substances 2	Vocabulary of Properties of Substances 2	Reads cards relating to the various properties explored and places cards next to objects, images, or materials that represent the property.	• •	•	R					14
Science	Physical Properties of Substances 2	Vocabulary of Properties of Substances 2	Reads definitions of various properties of substances and pairs with corresponding vocabulary labels.	5 • •	•	R					15
Science	Physical Properties of Substances 2	Properties of Substances: Command Cards	Reads simple Command Cards relating to various properties of substances, carries out the experiments, and places the adjective cards to correspond with the substance/ material that corresponds to the word.	• •	•	R					16
Science	Physical Properties of Substances 2	Observation of Physical Properties of Substances	Notices and comments on the physical properties of substances in various contexts.	• •	•	R					17
Science	Physical Principles 1	Introduction to Friction	Creates heat by means of friction, rubbing hands together, and practices using the appropriate vocabulary.	• • •	•	R					18
Science	Physical Principles 1	Physical Science: Introduction to Thermometer	Uses a safety thermometer to measure the temperature of hands before and after rubbing together	s • •	•	R					19

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd 3:	rd 4th	5th	6th	ID #
Science	Physical Principles 1	Introduction to Static Electricity	Explores static electricity by rubbing an inflated balloon against own hair; creating static electricity by rubbing a balloon on a wooly sweater; noticing and commenting on static electricity sparks, which occur naturally in cold, dry weather.	••	•	R				20
Science	Physical Principles 1	Introduction to Simple Circuits	Explores electrical current through work with a simple circuit, either closing the circuit using a switch or by closing the circuit using various conductive and non-conductive materials.	••	•	R				21
Science	Physical Principles 1	Introduction to Bridges	Explores types of forces by building "bridges" with straight, arched ,and corrugated card materials and testing the load- bearing capacities of each; forms and communicates hypotheses.	• •	•	R				22
Science	Physical Principles 1	Introduction to Structural Integrity	Explores structural integrity of structures built with triangular or rectangular shapes.	• •	•	R				23
Science	Physical Principles 1	Introduction to Magnetic Polarity	Explores magnetic polarity working with two bar magnets with N and S clearly marked.	• •	•	R				24
Science	Physical Principles 1	Introduction to Ring Magnets	Explores magnetic force working with Ring Magnets on a dowel.	• •	•	R				25
Science	Physical Principles 1	Sink and Float	Explores effects of density on buoyancy through working with the Sink and Float activity.	• •	•	R				26
Science	Physical Principles 2	Introduction to Viscosity 2	Explores how oil and water will not mix by making a simple "lava lamp" with colored water and cooking oil.	• •	•	R				27
Science	Physical Principles 1	Introduction to Viscosity 3	Explores how different liquids de not mix but form distinct layers through placing syrup, oil, and water in a jar and observing how they always settle into different layers; extending experiment by dropping different objects (berries, pasta, small stones) into the container, observing where they settle; forms hypotheses regarding density based on observations.	)	•	R				28

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG 1st	2nd	3rd 4t	h 5th	6th	ID #
Science	Physical Principles 1	Introduction to Density and Buoyancy	Notices and comments on the effects of density and buoyancy in different contexts and asks relevant questions (e.g., "Why does ice float?").	n •	••	R				29
Science	Physical Principles 3	Color Paddles	Uses Color Paddles, held up to a light source, to explore color mixing.	• •	• •	R				30
Science	Physical Principles 3	Prisms	Uses a glass prism to split a beam of white light.	•	• •	R				31
Science	Physical Principles 3	Introduction to Refraction	Explores concept of refraction through placing a stick in a bowl of water and observing from different angles to notice that the stick appears broken and/or placing an object in a bowl that is first empty and then filled with water to observe refraction.	•	••	R				32
Science	Physical Principles 3	Introduction to Reflection	Uses a safety mirror to explore reflection and the related concepts of symmetry.	•	• •	R				33
Science	Physical Principles 3	Introduction to Refraction	Notices and comments on the effects of looking through a goldfish bowl; why magnifying glasses make things appear larger etc.	•	••	R				34
Science	Physical Principles 3	Introduction to Light and Shadow	Notices and comments on the effects of light and shadow in different contexts and asks relevant questions.	•	• •	R				35
Science	Physical Principles 4	Introduction to Sound Waves 1	Uses a "singing bowl" or bell to explore the idea that sound is a wave and relates to the movement of air (child rings bell or sets up vibration in the bowl and feels the vibration with fingers), continues exploration through experiments.	•	••	R				36
Science	Physical Principles 4	Introduction to Sound Waves 2	Explores types of waves using a rope (longitudinal wave) and a slinky (transverse wave).	•	• •	R				37
Science	Physical Principles 4	Observing different types of waves: sound, light, ripples in water, etc.	Notices and comments on different types of waves and begins to ask which kind of wave it is (e.g., child may notice ripples in a pond or the sound of thunder being heard after a lightening bolt is seen).	•	• •	R				38

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st :	2nd 3rd	4th 5t	h 6th	ID #
Science	Measuring: Physical Science	Using a dropper or pipette to transfer one drop	Uses a dropper or pipette to transfer liquid one drop at a time.	• • •	•	R			39
Science	Measuring: Physical Science	Observing with magnifying glass	Uses a magnifying glass carefully and appropriately to make observations in relation to physical science explorations.	• • •	•	R			40
Science	Measuring: Physical Science	Physical Science: Initial exploration with simple microscope	Uses a microscope carefully and appropriately to make observations in relation to physical science explorations.	• •	•	R			41
Science	Measuring: Physical Science	Initial exploration with binoculars	Uses binoculars carefully and appropriately to make observations in relation to physical science explorations.	• •	•	R			42
Science	Measuring: Physical Science	Physical Science: Using a Thermometer in Life Science 1	Uses a thermometer carefully and appropriately in classroom experiments.	• •	•	R			43
Science	Measuring: Physical Science	Physical Science: Introduction to a Scientific Scale	Uses scientific scales (and other instruments for measuring mass) carefully and appropriately.	• •	•	R			44
Science	Measuring: Physical Science	Physical Science: Rulers and Measuring Tapes	Uses various simple rulers and measuring tapes carefully and appropriately to make observations in relation to physical science explorations.	• •	•	R			45
Science	Observing and Recording: Physical Science 1	Describing what we have observed 1	Verbally communicates observations using common vocabulary.	• •	•	R			46
Science	Observing and Recording: Physical Science 1	Describing what we have observed 2	Verbally communicates observations using increasingly accurate scientific vocabulary.	• •	•	R			47
Science	Observing and Recording: Physical Science 2	Recording observations by drawings	Records observations using drawings.	• •	•	R			48
Science	Observing and Recording: Physical Science 2	Recording observations using paint and other media	Records observations from light and color experiments using various art media.	• •	•	R			49
Science	Observing and Recording: Physical Science 2	Written descriptions of what has been observed - hand writing	Records observations in writing.	• •	•	R			50

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 K	G 1st	2nd	3rd 4	lth 5th	6th	ID #
Science	Observing and Recording: Physical Science 2	Written descriptions of what has been observed - using a computer or digital device	Records observations using digita media (text or image).	1	• •	R				51
Science	Observing and Recording: Physical Science 2	Using graphs to describe what has been observed	Records observations using various graphing techniques.	• •	•	R				52
Science	Observing and Recording: Physical Science 2	Cards that name scientific instruments	Reads cards relating to the various instruments used and places labels next to the corresponding instrument.	•	•	R				53
Science	Observing and Recording: Physical Science 2	Three-part cards that illustrate, name, and define scientific instruments	Reads definitions of various instruments used and pairs with corresponding vocabulary labels.	• •	•	R				54
Science	Being a Scientist 1	Setting up classroom science activities and experiments	Collaborates in finding and setting up temporary classroom science activities and experiments	•••	•	R				55
Science	Being a Scientist 1	Learning to investigate 1	Uses various books, media, and other classroom resources to learn more about topics explored in class.	•	•	R				56
Science	Being a Scientist 2	Setting up simple experiments	Sets up experiments and tests hypotheses using a variety of materials and in different scenarios.	• • •	•	R				57
Science	Being a Scientist 2	Simple experiments: hypothesis and results	Communicates reasons for hypotheses and displays an interest in exploring why hypotheses were supported or disproved by experiments.	• •	•	R				58
Science	Being a Scientist 2	Introduction to recording results of simple experiments	Displays an interest in recording findings in various ways (see "recording" for more details).	•	•	R				59
Science	Being a Scientist 2	Applying principles to practical situations 1	Applies principles to practical situations: e.g., sorts iron filings from another material (such as sand or rice) using a magnet.	•	•	R				60
Science	Being a Scientist 2	Applying principles to practical situations 2	Works on projects which apply principles: e.g., builds a simple circuit (such as making a flashlight or model lighthouse) using an AA cell, flashlight bulb, and a switch.	• •	• •	R				61
Science	Exploring Nature	Observing the garden over the seasons	Observes and discusses changes in school garden over the seasons.	• • •	•	R				62

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Science	Exploring Nature	Introduction to life cycles in the garden	Observes and discusses life cycles of plants and animals in school garden, noticing how living things grow, reproduce, die, and decay in a continues cycle of life.	• •	•	•	R					63
Science	Exploring Nature	Life Science: Collecting for the class nature center	Collects various natural items, which are added to classroom collections; discusses and explores, either alone or in a smal group; uses scientific instruments, such as magnifiers, microscopes, etc., as well as various measuring tools; observes live animals and then releases them back into the place where they were found.	• • 1	•	•	R					64
Science	Exploring Nature	Further investigations into specimens found for the class nature center	Uses a variety of classroom resources to learn more about specimens that are brought into the classroom.	•	•	•	R					65
Science	Classifying: First Classifications	Describing specimens in class nature center	Explores natural objects in Discovery Basket or on Nature Table, describes their characteristics, and communicates findings with others.	•••	•	•	R					66
Science	Classifying: First Classifications	Sorts and classifies specimens in class nature center	Sorts objects in Discovery Basket according to various observed characteristics and communicates the criteria for grouping.	• •	•	•	R					67
Science	Classifying: First Classifications	Classifying: Living and nonliving	Sorts images into sets of living and non-living.	• •	•	•	R					68
Science	Classifying: First Classifications	Sorting: Plant, fungus, and animal	Sorts images into sets of plant, fungus, and animal.	• •	•	•	R					69
Science	Classifying: First Classifications	Sorting: Vertebrates and non-vertebrates	Sorts images of animals into sets of vertebrates and non- vertebrates.	• •	•	•	R					70
Science	Classifying: First Classifications	Sorting: Families of vertibrates	Sorts images of vertebrates into five major groups: ray-finned fish amphibians, mammals, squamates, and birds.	, • •	•	•	R					71
Science	Classifying: First Classifications	Classifying Vertebrates: Simple branching diagram	Relates vertebrate groups to a simple branching diagram, showing lineage.	•	•	•	R					72
Science	Classifying: First Classifications	Classifying Vertebrates: Simple nesting diagram	Relates vertebrate groups to a simple nesting diagram, showing derived characteristics.	•	•	•	R					73

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	ōth	6th	ID #
Science	Classifying: First Classifications	Classifying Plants: major groups of plant kingdom	Sorts images according to major lineages of the plant kingdom.	• •	•	R					74
Science	Classifying: First Classifications	Classifying Plants: simple branching diagram	Sorts images of plants according to branching diagram, showing lineage.	• •	•	R					75
Science	Classifying: First Classifications	Classifying Vertebrates: simple nesting diagram	Sorts images of plants according to nesting diagram of five important characteristics (lives or land, vascular tissues, true leaves, seeds, flowers, and fruit).	• •	•	R					76
Science	Classifying: Knowledge of Animals	Classified Card Material: Names of animals within major groups of vertebrates	Works with Classified Card materials to discover and learn the names of animals within each of the five major groups of vertebrates (e.g., types of fish; types of reptiles, etc.).	•••	•	R					77
Science	Classifying: Knowledge of Animals	Classified Card Material: Names of species or breeds	Works with Classified Card materials to discover and learn the names of species or breeds within the larger classifications (e. g., types of ungulates or breeds of dog).	••	•	R					78
Science	Classifying: Knowledge of Animals	Classified Card Material: Reading names of animals within major groups of vertebrates	Works with Classified Card Materials to read the names of animals within each of the five major groups (e.g., types of fish; types of reptiles; etc.).	•••	•	R					79
Science	Classifying: Knowledge of Animals	Classified Card Material: Reading names of species or breeds within major groups of vertebrates	Works with Classified Card Materials to read the names of species or breeds within the large classifications (e.g., types of ungulates or breeds of dog).	• •	•	R					80
Science	Classifying: Knowledge of Animals	Classified Card Material: Matching labels to descriptions	Works with Classified Card Materials, matching labels to corresponding descriptions.	• •	•	R					81
Science	Classifying: Knowledge of Animals	Classified Card Material: Learning names of kinds of plants within major groups	Works with Classified Card Materials to discover and learn the names of kinds of plants within each of the major lineages (e.g., kinds of flowering plants).	• • •	•	R					82
Science	Classifying: Knowledge of Plants	Classified Card Material: Learning names of kinds of plants grouped by important characteristics	Works with Classified Card Materials to discover and learn the names of kinds of plants grouped by important characteristics (e.g., kinds of trees herbs, etc.).	•••	•	R					83

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Science	Classifying: Knowledge of Plants	Classified Card Material: Reading names of kinds of plants within major groups	Works with Classified Card Materials to read the names of plants within each of the major lineages of flowering plants.	•	•	•	R					84
Science	Classifying: Knowledge of Plants	Classified Card Material: Reading names of plants grouped by important characteristics	Works with Classified Card Materials to read the names of plants grouped by important characteristics (e.g., kinds of trees kinds of herbs; etc.).	9	•	•	R					85
Science	Classifying: Knowledge of Plants	Classified Card Materials: Matching labels and descriptions.	Works with Classified Card Materials, matching labels to corresponding descriptions.	•	•	•	R					86
Science	Observing and Recording: Life Science 1	Describing what we have observed 1	Verbally communicates observations using common vocabulary.	• •	•	•	R					87
Science	Observing and Recording: Life Science 1	Describing what we have observed 2	Verbally communicates observations using increasingly sophisticated scientific vocabulary.	•	•	•	R					88
Science	Observing and Recording: Life Science 1	Recording observations by drawings	Records observations using drawings.	•	•	•	R					89
Science	Observing and Recording: Life Science 1	Recording observations using art	Records observations from light and color experiments using various art media.	•	•	•	R					90
Science	Observing and Recording: Life Science 2	Recording observation in writing 1	Records observations in writing.	•	•	•	R					91
Science	Observing and Recording: Life Science 2	Recording observations using a computer or digital device	Records observations using digita media (text or image).	ıl •	•	•	R					92
Science	Observing and Recording: Life Science 2	Using graphs to describe what has been observed	Records observations using various graphing techniques.	•	•	•	R					93
Science	Measuring: Life Science	Uses a magnifying glass	Uses a magnifying glass carefully and appropriately to make observations in relation to Life Science explorations (e.g., insects, seeds etc.).	• •	•	•	R					94
Science	Measuring: Life Science	Life Science: Initial exploration with simple microscope	Uses a microscope carefully and appropriately to make observations in relation to Life science Explorations (e.g., life in pond water).	•	•	•	R					95

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Science	Measuring: Life Science	Initial exploration with binoculars	Uses binoculars carefully and appropriately to make observations in relation to life science explorations (e.g., watches birds in school garden).	•	•	•	R					96
Science	Measuring: Life Science	Life Science: Using a thermometer in life science 2	Uses a thermometer carefully and appropriately in classroom experiments.	•	•	•	R					97
Science	Measuring: Life Science	Life Science: Introduction to a Scientific Scale	Uses scientific scales (and other instruments for measuring mass) carefully and appropriately.	•	•	•	R					98
Science	Measuring: Life Science	Life Science: Rulers and measuring tapes	Uses various simple rulers and measuring tapes carefully and appropriately to make observations in relation to physical sciences explorations.	•	•	•	R					99
Science	Parts of Plants 1	Introduction to parts of a plant	Examines the parts of a living plant.	• •	•	•	R					100
Science	Parts of Plants 1	Parts of a plant	Identifies and names the parts of a plant.	• •	•	•	R					101
Science	Parts of Plants 1	Botany Puzzles	Explores the parts of a plant by working with the Botany Puzzles.	• •	•	•	R					102
Science	Parts of Plants 2	Botany Cabinet: Leaf shapes as puzzles	Traces the borders of the leaf shapes in the Botany Cabinet and replaces them in the corresponding frames to learn the various leaf shapes.	••	•	•	R					103
Science	Parts of Plants 2	Botany Cabinet: Matching leaf shapes to cards	Matches the insets from the Botany Cabinet to the three series of cards that correspond to the leaf shapes.	• •	•	•	R					104
Science	Parts of Plants 2	Botany Cabinet: Matching leaf shapes to plants outside	Finds leaves around the school grounds that correspond to the shapes in the Botany Cabinet.	• •	•	•	R					105
Science	Parts of Plants 2	Botany Cabinet: Names of the leaf shapes	Identifies and names leaf shapes.	•	•	•	R					106
Science	Parts of Plants 2	Botany Cabinet: Reading and matching labels of leaf shapes to puzzle pieces	Reads labels relating to leaf shapes and matches the labels to the corresponding images.	•	•	•	R					107

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 K	G 1st	2nd 31	d 4th	5th	6th	ID #
Science	Parts of Plants 3	First series of Botany Cards: Naming parts of a plant	Identifies parts of a plant by means of first series of Botany Cards (tree, leaf, flower, root).	• •	•	R				108
Science	Parts of Plants 3	First series of Botany Cards: Labeling the parts of a plant	Reads labels relating to parts of a plant and matches the labels to the corresponding images.	• •	•	R				109
Science	Parts of Animals 1	Introduction to the names of the external body parts of animals	Examines the external body parts of a real animal.	• • •	•	R				110
Science	Parts of Animals 1	Naming the external body parts of familiar animals	Identifies and names the external body parts of familiar animals.	• • •	•	R				111
Science	Parts of Animals 1	External body parts of vertebrates: Animal puzzles	Explores the external body parts of vertebrates by working with the Animal Puzzles.	• • •	•	R				112
Science	Parts of Animals 2	External body parts of vertebrates: Nomenclature Cards	Identifies and names the external body parts of various animals by means of separate sets of Nomenclature Cards.	• •	•	R				113
Science	Parts of Animals 2	External body parts of animals: Matching labels to images	Reads labels relating to various animals, and matches the labels to the corresponding images.	) •	•	R				114
Science	Physical Properties of Substances 3	Introduction to Atoms	Explains and works with the Bohr Model, developing a knowledge of the basic structure of atoms.			•	•	•	•	115
Science	Physical Properties of Substances 3	Introduction to the structure of an atom	Differentiates between the nature of protons, electrons, and neutrons in atomic structure.			•	•	•	•	116
Science	Physical Properties of Substances 3	Introduction to physical change	Demonstrates that in physical change, matter changes in form, but not in substance.			•	•	•	•	117
Science	Physical Properties of Substances 3	Introduction to chemical change	Demonstrates that in chemical change, matter changes in substance, as well as form.			•	•	•	•	118
Science	Physical Properties of Substances 3	Introduction to expansion and contraction of materials at different temperatures	Demonstrates that different temperatures cause materials to expand or contract.			•	• •	•	•	119

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Ag	e 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Science	Physical Properties of Substances 3	Introduction to chemical mixtures	Demonstrates that a mixture is composed of individual substances that retain their identity when mixed and can be recovered in their original form by ordinary means.				•	•	•	•	•	120
Science	Physical Properties of Substances 3	Introduction to chemical compounds	Demonstrates that elements can be combined to form compounds with properties different from those of the combining elements.	5			•	•	•	•	•	121
Science	Physical Properties of Substances 3	Difference between chemical mixtures and compounds	Differentiates between chemical elements and compounds.				•	•	•	•	•	122
Science	Physical Properties of Substances 3	Introduction to molecules	Explains that molecules are the smallest particles of a compound that still have all their properties.				•	•	•	•	•	123
Science	Physical Properties of Substances 3	Molecules in motion: Different states of matter	Describes matter as being composed of molecules that are in constant motion; has a working knowledge of the different states of matter.	<b>7</b>			•	•	•	•	•	124
Science	Physical Properties of Substances 3	Initial investigation of common elements	Investigates and gathers information about common elements from the encyclopedia, classroom materials, and other resources.					•	•	•	•	125
Science	Physical Properties of Substances 3	Initial work on chemical symbol and atomic structure of elements using the Bohr (Atomic) Model	Gives the chemical symbol and atomic structure of specified elements and is able to build these on the Bohr Model.					•	•	•	•	126
Science	Physical Properties of Substances 3	Introduction to chemical formulas for familiar compounds	Identifies the chemical formulas for specified familiar compounds					•	•	•	•	127
Science	Physical Properties of Substances 3	Simple research reports on how we use different elements and compounds	Prepares research reports on the nature and use of elements and compounds.					•	•	•	•	128
Science	Physical Properties of Substances 3	Designing an experiment to illustrate physical and chemical change	Distinguishes between physical and a chemical changes and is able to demonstrate this through experimentation.					•	•	•	•	129

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG 1s	t 2nd	3rd	4th	5th	6th	ID #
Science	Physical Properties of Substances 3	Designing an experiment to illustrate that matter is not lost during a chemical or physical change	Explains that the total amount of matter is not changed during a chemical or physical change and is able to demonstrate this through experimentation.				•	•	•	•	130
Science	Physical Properties of Substances 3	Density and flotation	Demonstrates that density determines whether an object sinks or floats.				•	•	•	•	131
Science	Physical Properties of Substances 3	Introduction to fire and combustion	Explains the basic principles of fire and combustion and has participated in demonstrations that relate to this concept.				•	•	•	•	132
Science	Physical Properties of Substances 3	Introduction to acids and bases	Differentiates between acids and bases; performs experiments that relate to this concept.				•	•	•	•	133
Science	Physical Properties of Substances 3	Solutions and mixtures	Prepares solutions and mixtures.				•	•	•	•	134
Science	Physical Properties of Substances 3	Physical properties of liquids	Explains the basic physical properties of liquids; knowledge is derived from participating in demonstrations.				•	•	•	•	135
Science	Physical Properties of Substances 3	Physical properties of gases	Explains the basic physical properties of gases; knowledge is derived from participating in demonstrations.				•	•	•	•	136
Science	Physical Properties of Substances 3	Physical properties of solids	Explains the basic physical properties of solids; knowledge is derived from participating in demonstrations.				•	•	•	•	137
Science	Physical Properties of Substances 3	Basic principles of water pressure	Explains the basic principles of water pressure; knowledge is derived from participating in demonstrations.				•	•	•	•	138
Science	Physical Properties of Substances 3	Basic principles of air pressure	Explains the basic principles of air pressure; knowledge is derived from participating in demonstrations.				•	•	•	•	139
Science	Physical Properties of Substances 3	Principles of water displacement	Demonstrates understanding of the principles of water displacement, using an overflow basin to measure the volume of irregular solids.				•	•	•	•	140
Science	Energy	Introduction to energy transformations	Recognizes and identifies common energy transformations; knowledge is derived from participation in demonstrations.				•	•	•	•	141

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG 1	st 2nd	3rd	4th	5th	6th	ID #
Science	Energy	Introduction to relative motion	Describes the relative motion of an object with respect to the position or motion of another object; knowledge is derived from participation in demonstrations (d=vt).	I			•	•	•	•	142
Science	Energy	Closed electrical circuits	Sets up a closed electrical circuit.			•	•	•	•	•	143
Science	Energy	Opaque, semi- opaque, and transparent materials	Distinguishes among materials that: completely block the passage of light; allow some light to pass through; and pass light completely, identifying them as opaque, semi-opaque, and transparent.			•	•	•	•	•	144
Science	Energy	Light and shadow: relative position of object and light source	Demonstrates that changing an object's position in relationship to a light source changes the appearance of its shadow.	)		•	•	•			145
Science	Energy	Conductors and non-conductors	Distinguishes between conductors and non-conductors; knowledge comes from participation in demonstrations.				•	•	•	•	146
Science	Energy	How can electromagnetic energy create motion?	Demonstrates that energy in the form of electromagnetism can create motion.				•	•	•	•	147
Science	Energy	Introduction to fossil fuels	Identifies types of fossil fuels, how they were formed, and how they are used.				•	•	•	•	148
Science	Energy	Solar Energy	Identifies the Sun as a type of fuel, how it's captured, and how it's used; knowledge comes from participation in demonstrations.				•	•	•	•	149
Science	Energy	Introduction to conservation of resources	Describes ways to conserve natural resources: knowledge comes from research and demonstrations.				•	•	•	•	150
Science	Energy	How can water pressure create movement?	Demonstrates that water pressure can cause objects to move.			•	•				151
Science	Energy	How can air pressure create movement?	Demonstrates that air pressure can cause objects to move.				•	•	•	•	152
Science	Energy	Introduction to sound waves as a form of energy	Identifies sound waves as a form of energy; knowledge comes from demonstrations.	l			•	•	•	•	153

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Science	Energy	Sound waves travel through solids, liquids, and gases	Demonstrates that sound waves travel through solids, liquids, and gases.				•	•	•	•	154
Science	Energy	Light travels in straight lines	Demonstrates that light travels only in straight lines.				•	•	•	•	155
Science	Energy	Reflected light makes objects visible	Demonstrates that objects become visible only when light is reflected from them.				•	•	•	•	156
Science	Energy	How light bends when it enters a new medium	Demonstrates that light bends when it passes from one medium to another.				•	•	•	•	157
Science	Energy	Light is a form of energy	Identifies light as a form of energy: knowledge comes from participation in demonstrations.				•	•	•	•	158
Science	Energy	Darker colors absorb more light energy than light ones	Demonstrates that darker colors absorb more light energy than light colors.				•	•	•	•	159
Science	Energy	Highly reflective materials absorb almost no light energy	Demonstrates that mirrors and other highly reflective materials absorb almost no light energy.				•	•	•	•	160
Science	Energy	Why do objects appear to be reversed in a mirror?	Explains why objects reflected in a mirror appear to be reversed; knowledge comes from participation in demonstrations.				•	•	•	•	161
Science	Energy	Why do the Sun and Moon appear so much larger or orange colored when they are very low on the horizon?	Explains why the Sun or the Moon appears to be so much larger or orange colored when it/they are very low on the horizon.				•	•	•		162
Science	Energy	Introduction to the electromagnetic spectrum	Describes the forms of radiation on the electromagnetic spectrum.				•	•	•	•	163
Science	Energy	Characteristics of different physical states of matter	Describes the characteristics of the physical states of matter: plasma, gas, liquid, solid, Bose Einstein Condensate.						•	•	164
Science	Energy	Temperature and molecular movement	Explains the link between temperature and molecular movement; knowledge comes from participation in demonstrations.						•	•	165

	Montes	sori Foundat	ion Cu <del>rr</del> iculum Scop	e and Se	que	nce	: Aş	ges	3 t	o 12	2
	( 	Commonly, by the e will be able to demo	nd of the span of age or grade l nstrate the following skills, kno	evels indicate wledge, and/	d belo or und	ow, sti lersta	uden ndin	ts g:			
Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 K	G 1st	2nd	3rd	4th	5th	6th	ID #
Science	Energy	Change in motion is caused by unbalanced forces	Demonstrate that any change in motion is caused by unbalanced forces.				•	•	•	•	166
Science	Energy	Gravitational pull gives an object its weight	Infers that gravitational pull gives an object its weight; inferences come from participation in demonstrations.				•	•	•	•	167
Science	Energy	Explaining friction	Explains and demonstrates the force of friction.				•	•	•	•	168
Science	Energy	Gravity and friction will eventually cause an object in motion to stop	Explains and demonstrates that gravity and friction will eventually cause an object in motion to stop	,			•	•	•	•	169
Science	Energy	Newton's First Law of Motion: Inertia makes objects remain at rest or continue in motion	Explains and demonstrates that the property of inertia makes objects remain at rest or continue in motion.						•	•	170
Science	Energy	Electrical currents flow through a conducting material	Demonstrates and offers a simple explanation of the flow of an electrical current through a conducting material.	:					•	•	171
Science	Energy	Build a simple electromagnet	Constructs a simple electromagnet and demonstrates that the number of coils of wire determine its magnetic attraction.				•	•	•	•	172
Science	Energy	Transformation of energy from one form to another	Demonstrates the transformation of energy from one form to another.				•	•	•	•	173
Science	Energy	Newton's Third Law of Motion: Every motion creates a force equal and opposite	Demonstrates that every motion creates a force equal and opposite to it (Newton's Third Law).	:					•	•	174
Science	Technology	Introduction to the principles of levers	Demonstrates through experimentation and hands-on experiences the principles of levers.		•	•	•	•	•	•	175
Science	Technology	Introduction to the principles of inclined planes	Demonstrates through experimentation and hands-on experiences the principles of inclined planes.		•	•	•	•	•	•	176
Science	Technology	Introduction to the principles of wheels and axles	Demonstrates through experimentation and hands-on experiences the principles of a wheel and axle.		•	•	•	•	•	•	177

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Science	Technology	Introduction to the principles of pulleys	Demonstrates through experimentation and hands-on experiences the principles of pulleys.		•	•	•	•	•	•	178
Science	Technology	Introduction to the principles of wedges	Demonstrates through experimentation and hands-on experiences the principles of wedges.		•	•	•	•	•	•	179
Science	Technology	Introduction to the principles of screws	Demonstrates through experimentation and hands-on experiences the principles of screws.		•	•	•	•	•	•	180
Science	Technology	The technologies behind simple machines and structures	Experiences through demonstrations, hands-on activities and research various simple technologies used in constructing a Chinese balance and models of several simple machines and structures, such as a water wheel, a windmill, sail boat, igloo, grass hut, log home, stone hut, and a simple wood frame home.		•	•	•	•	•	•	181
Science	Technology	Simple technologies used by early humans and civilizations	Experiences through demonstrations, hands-on activities, and research various simple technologies used to: build a brick mold to make bricks; make primitive cutting implements; make a pit kiln for firing pots and vessels from clay. (Correlates with ancient history)		•	•	•	•	•	•	182
Science	Technology	Roman Arches	Constructs a Roman Arch accurately.		•	•	•	•	•	•	183
Science	Technology	Early human and animal sources of power	Explains, through demonstrations and research, how people used their own power to accomplish heavy work and how the use of domesticated animal provided a more efficient source of power.	ŝ			•	•	•	•	184
Science	Technology	How different types of power sources and engines operate: Windmills	Explains, through demonstrations, research, and constructing a model, how a windmill operates and can be used.				•	•	•	•	185
Science	Technology	How different types of power sources and engines operate: Watermills	Explains, through demonstrations, research, and constructing a model, how a watermill operates and can be used.				•	•	•	•	186

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Science	Technology	How different types of power sources and engines operate: Sail boats	Explains, through demonstrations, research, and constructing a model, how a sail boat operates and can be used.				•	•	•	•	187
Science	Technology	How different types of power sources and engines operate: Steam engines	Explains, through demonstrations, research, and using a model, how a steam engine operates and can be used.				•	•	•	•	188
Science	Technology	How different types of engines operate: Gasoline motors	Explains, through demonstrations, research, and using a model, how a a gasoline motor operates and is used.				•	•	•	•	189
Science	Technology	How different types of engines operate: Diesel motors	Explains, through demonstrations, research, and using a model, how a a diesel motor operates and is used.				•	•	•	•	190
Science	Technology	How different types of engines operate: Electric motors	Explains, through demonstrations, research, and using a model, how a electric motor operates and is used.				•	•	•	•	191
Science	Technology	How different types of engines operate: Aviation motors	Explains, through demonstrations, research, and using a model, how an aviation motor operates and is used.				•	•	•	•	192
Science	Technology	How different types of engines operate: Jet engines	Explains, through demonstrations, research, and using a model, how a jet engine operates and is used.				•	•	•	•	193
Science	Technology	How different types of engines operate: Rocket engines	Explains, through demonstrations, research, and using a model, how a rocket engine operates and is used.				•	•	•	•	194
Science	Technology	Sources of Power	Explain, through demonstrations and experimentation, the different sources of power, and how they generate power for human consumption.				•	•	•	•	195
Science	Technology	How batteries work	Explains how a battery stores power through demonstration and experimentation.				•	•	•	•	196
Science	Technology	Building a simple electric motor	Constructs a simple, working electric motor.				•	•	•	•	197
Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
---------	------------	---	--	----------------	-----	-----	-----	-----	-----	-----	------
Science	Technology	How traditional electric light bulbs work	Through demonstration and experimentation, explains and understands how an electric light bulb operates.				•	•	•	•	198
Science	Technology	Radio and Television	Through demonstration and experimentation, explains and understands the principles involved in radio and television.				•	•	•	•	199
Science	Technology	Introduction to microchips and computer technology	Through demonstration and experimentation, explains and understands the principles involved in microchips and computers.				•	•	•	•	200
Science	Technology	Principles of Flight	Explains and understands the principles of flight through demonstration and experimentation.				•	•	•	•	201
Science	Technology	Introduction to Lasers	Through demonstration and experimentation, explains and understands the principles of lasers and their various uses.				•	•	•	•	202
Science	Technology	Introduction to Microwaves	Through demonstration and experimentation, explains and understands the principles of microwaves and their uses.				•	•	•	•	203
Science	Astronomy	Gravity and its role in the formation of a star and nebula	Through demonstration and experimentation, explains gravity's role in the formation of protogalactic nebula and the formation of the first stars.		•	•	•	•	•	•	204
Science	Astronomy	How stars are formed	Through demonstration and experimentation, explains the current understanding of how stars are formed.				•	•	•	•	205
Science	Astronomy	Introduction to stellar nucleosynthesis	Through demonstration and experimentation, explains the fundamentals of stellar nucleosynthesis.				•	•	•	•	206
Science	Astronomy	Life cycle of stars	Through demonstration and experimentation, explains the current understanding of the life cycle of stars.				•	•	•	•	207
Science	Astronomy	What causes the differences in apparent brightness of stars?	Through demonstration and experimentation, explains the apparent brightness of stars, being related to size, distance from Earth, and temperature.				•	•	•	•	208
Science	Astronomy	Why do the stars appear to move?	Through demonstration and experimentation, explains that the apparent movement of stars is related to the rotation of the Earth on its axis.	2			•	•	•	•	209

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age	4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Science	Astronomy	Introduction to the concept of a light year	Through demonstration and experimentation, understands and explains the concept of a light year.	l				•	•	•	•	210
Science	Astronomy	Calculating the distance from Earth in miles or kilometers when given distance in terms of light years	Calculates the distance from Earth of a cosmic object located X-light years away.								•	211
Science	Astronomy	Introduction to black holes	Through demonstration and experimentation, explains the currently held scientific theory about black holes.					•	•	•	•	212
Science	Astronomy	Introduction to the telescope	Uses an optical telescope.					•	•	•	•	213
Science	Astronomy	Optical telescopes, radio telescopes, and spectrographs.	Through demonstration, experimentation, and research, demonstrates an understanding about: optical telescopes, radio telescopes, and spectrographs.					•	•	•	•	214
Science	Astronomy	What a star's spectrum can tell us	Through demonstration, experimentation, and research, explains how a star's spectrum is used to determine its chemical composition.					•	•	•	•	215
Science	Astronomy	Introduction to galaxies	Through demonstration, experimentation, and research, explains galaxies.					•	•	•	•	216
Science	Astronomy	Our solar system	Through demonstration, experimentation and research, demonstrates in-depth understanding about the various planets and satellites in our solar system.					•	•	•	•	217
Science	Astronomy	Day and night, the seasons, and length of daylight	Through demonstration, experimentation, and research, demonstrates an understanding about day and night, the seasons, and changes in the length of day light.			•	•	•	•	•	R	218
Science	Astronomy	Solstices and equinoxes	Through demonstration, experimentation, and research, demonstrates an understanding about solstices and equinoxes.					•	•	•	R	219
Science	Astronomy	Perihelions and aphelions	Through demonstration, experimentation, and research, demonstrates an understanding about perihelions and aphelions.					•	•	•	R	220

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age	4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Science	Astronomy	Introduction to tides on Earth	Through demonstration, experimentation, and research, demonstrates an understanding o Earth/Moon relationships and the resulting tides on Earth.	f				•	•	•	•	221
Science	Astronomy	Solar and lunar eclipse	Through demonstration, experimentation, and research, demonstrates an understanding o solar and lunar eclipses.	f				•	•	•	•	222
Science	Astronomy	Meteorites and comets	Through demonstration, experimentation, and research, demonstrates an understanding o meteorites and comets.	f				•	•	•	•	223
Science	Earth Science: Geology Preparation	Layers of the Earth	Through demonstration, experimentation, and research, demonstrates an understanding o the layers of the Earth.	f				•	•	•	•	224
Science	Earth Science: Geology Preparation	The eight basic elements of the Earth	Through demonstration, experimentation, and research, demonstrates an understanding o the eight basic elements of the Earth.	f				•	•	•	•	225
Science	Earth Science: Geology Preparation	How weather shapes the land	Through demonstration, experimentation, and research, demonstrates an understanding o the forces of weather on Earth.	f				•	•	•	•	226
Science	Earth Science: Geology Preparation	How grains of sand are formed	Through demonstration, experimentation, and research, demonstrates an understanding o grains of sand in relation to weathering on Earth.	f				•	•	•	•	227
Science	Earth Science: Geology - Plate Tectonics	Tectonic plates	Through demonstration, experimentation, and research, demonstrates an understanding that the Earth's crust is made of plates.					•	•	•	•	228
Science	Earth Science: Geology - Plate Tectonics	What happens at the edges of tectonic plates?	Through demonstration, experimentation, and research, demonstrates an understanding about what happens at the edges of Earth's Plates.					•	•	•	•	229
Science	Earth Science: Geology - Plate Tectonics	Convergent and divergent movement in Earth's tectonic plates	Through demonstration, experimentation, and research, demonstrates an understanding o convergent and divergent movement in Earth's plates.	f				•	•	•	•	230
Science	Earth Science: Geology - Plate Tectonics	Convergent plates' subduction and mountain building	Through demonstration, experimentation, and research, demonstrates an understanding regarding Convergent Plates' Subduction and Mountain Building.					•	•	•	•	231

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Science	Earth Science: Geology - Plate Tectonics	New land is formed when tectonic plates move apart (Divergent Boundaries)	Through demonstration, experimentation, and research, demonstrates an understanding that when Tectonic Plates move apart (Divergent Boundaries), molten material moves to the surface and new land is formed.				•	•	•	•	232
Science	Earth Science: Geology - Plate Tectonics	Parallel movement of the Earth's tectonic plates	Through demonstration, experimentation, and research, demonstrates an understanding that the Earth's Tectonic Plates also move parallel to each other.				•	•	•	•	233
Science	Earth Science: Geology - Plate Tectonics	The Ring of Fire	Through demonstration, experimentation, and research, demonstrates an understanding about the Ring of Fire.				•	•	•	•	234
Science	Earth Science: Geology - Plate Tectonics	Volcanoes	Demonstrates an understanding about types of volcanoes through demonstration, experimentation, and research.	1			•	•	•	•	235
Science	Earth Science: Geology - Rocks & Minerals	Classifying rocks	Through demonstration, experimentation, and research, demonstrates an understanding about classifying rocks by grading, color, types of rocks.				•	•	•	•	236
Science	Earth Science: Geology - Rocks & Minerals	Igneous (including Extrusive and Intrusive Igneous rocks); Sedimentary; and Metamorphic Rocks	Through demonstration, experimentation, and research, demonstrates an understanding about the different types of rocks Igneous (including Extrusive and Intrusive Igneous rocks); Sedimentary; and Metamorphic.	52			•	•	•	•	237
Science	Earth Science: Geology - Rocks & Minerals	The Rock Cycle	Through demonstration, experimentation, and research, demonstrates an understanding o the Rock Cycle.	f			•	•	•	•	238
Science	Earth Science: Geology - Rocks & Minerals	Clastic Sedimentary Rocks	Through demonstration, experimentation, and research, demonstrates an understanding o how Clastic Sedimentary rocks are formed.	f			•	•	•	•	239
Science	Earth Science: Geology - Rocks & Minerals	How chemical processes form Sedimentary rocks	Through demonstration, experimentation, and research, demonstrates an understanding o how chemical processes form solids and, at times, these are Sedimentary rocks.	f			•	•	•	•	240
Science	Earth Science: Geology - Rocks & Minerals	How living organisms can create Biogenetic Sedimentary rocks	Through demonstration, experimentation, and research, demonstrates an understanding of how, at times, living organisms can create Sedimentary rocks called Biogenetic Sedimentary rocks.	f			•	•	•	•	241

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Science	Earth Science: Geology - Rocks & Minerals	Extrusive and Intrusive Igneous rocks	Through demonstration, experimentation, and research, demonstrates an understanding of how Igneous rock is formed; explains the different characteristics of both Extrusive and Intrusive Igneous rocks.	f			•	•	•	•	242
Science	Earth Science: Geology - Rocks & Minerals	Foliated and Non-foliated Metamorphic rocks	Through demonstration, experimentation, and research, demonstrates an understanding of how heat and pressure within the Earth create Metamorphic rocks and the difference between Foliated and Non-foliated Metamorphic rocks.	f			•	•	•	•	243
Science	Earth Science: Geology - Rocks & Minerals	Differences between rocks and minerals	Through demonstration, experimentation, and research, demonstrates an understanding of the differences between rocks and minerals.	f 1			•	•	•	•	244
Science	Earth Science: Geology - Rocks & Minerals	How mineral crystals are formed	Through demonstration, experimentation, and research, demonstrates an understanding of how to create Mineral crystals.	£			•	•	•	•	245
Science	Earth Science: Geology - Rocks & Minerals	Why the size of Mineral Crystals varies as a result of fast and slow evaporation	Through demonstration, experimentation, and research, demonstrates an understanding of how the crystals in Minerals will vary in size as a result of fast and slow evaporation.	f			•	•	•	•	246
Science	Earth Science: Geology - Rocks & Minerals	Tests used to identify Minerals and their properties	Discusses, understands, and performs some of the tests mineralogists use to identify Minerals and their properties.				•	•	•	•	247
Science	Earth Science: Weather	How wind is created	Discusses, understands, and explains Wind.		•	•	•	•	R	R	248
Science	Earth Science: Weather	Weather Vanes	Discusses, understands, constructs, and uses a Weather Vane.		•	•	•	•	R	R	249
Science	Earth Science: Weather	Anemometers	Discusses, understands, and explains the use of an Anemometer.						•	•	250
Science	Earth Science: Weather	The Beaufort Wind Scale	Discusses, understands, and explains the Beaufort Wind Scale.						•	•	251
Science	Earth Science: Weather	Wind and how it reshapes the landscape	Discusses, understands, and explains how the wind helps to reshape the landscape.		•	•	•	•	•	•	252

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Science	Earth Science: Weather	The world's major wind systems	Discusses, understands, and explains the World's Winds: Polar Easterlies, Trade Winds, Prevailing Westerlies.	ſ					•	•	253
Science	Earth Science: Weather	Hydrologic Cycle	Discusses, understands, and explains the Hydrologic Cycle.				•	•	•	•	254
Science	Earth Science: Weather	Introduction to cloud study	Discusses, understands, and explains Clouds: how they are formed, kinds of clouds, and the types of precipitation they produce.				•	•	•	•	255
Science	Earth Science: Weather	Weather fronts	Discusses, understands, and explains different types of weather fronts and the relating types of weather that can occur as a result of these.	5			•	•	•	•	256
Science	Earth Science: Weather	Symbols on a weather map	Interprets symbols from a weather map.				•	•	•	•	257
Science	Earth Science: Weather	How mountain ranges can affect weather	Discusses, understands, and explains how mountain ranges can affect weather.				•	•	•	•	258
Science	Earth Science: Weather	Introduction to major types of storms	Discusses, understands, and explains different kinds of storms and the relating weather: Tornadoes, Waterspouts, Hurricanes, Tropical Depressions, Tropical Storms, Blizzards.				•	•	•	•	259
Science	Earth Science: Weather	Why changing air pressure can help us predict storms	Discusses, understands, and explains air pressure and how changing air pressure helps predict when a storm will occur.				•	•	•	•	260
Science	Earth Science: Weather	Introduction to the Barometer	Discusses, understands, and explains the use of a Barometer.				•	•	•	•	261
Science	Earth Science: Weather	Introduction to lightning	Discusses, understands, and explains Lightning: types, properties, effects, interesting facts, and safety.				•	•	•	•	262
Science	Earth Science: Weather	Thunder and lightning	Discusses, understands, and explains the relationship between Thunder and Lightening.				•	•	•	•	263
Science	Earth Science: Meteorology	The role of a Meteorologist	Discusses, understands, and explains the role of a Meteorologist.		•	•	•	•	•	R	264

Area	Strand	Lesson/Material	Curriculum Element	Age 3 A	.ge 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Science	Earth Science: Meteorology	How Meteorologists obtain data	Discusses, understands, and explains the various ways a Meteorologist obtains data.					•	•	•	•	265
Science	Earth Science: Meteorology	Weather instruments	Discusses, understands, and explains the various instruments used in monitoring the atmosphere.					•	•	•	•	266
Science	Earth Science: Climate	Differences between Weather and Climate	Discusses, understands, and explains the differences between Weather and Climate.					•	•	•	•	267
Science	Earth Science: Climate	Factors that make up Climate	Discusses, understands, and explains the many factors that make up Climate.					•	•	•	•	268
Science	Earth Science: Climate	How climate affects the way people live	Discusses, understands, and explains how Climate affects: people's clothing, housing, and types of food grown.			•	•	•	•	•	•	269
Science	Earth Science: Climate	How climate determines what plants and animals will thrive	Discusses, understands, and explains how Climate determines the types of vegetation and animals that thrive.	i				•	•	•	•	270
Science	Earth Science: Climate	Climate and pollution	Discusses, understands, and explains how Climate is thought to be affected by a variable, such as pollution (Greenhouse Effect)	I.				•	•	•	•	271
Science	Being a Scientist: Measurement	Precise scientific measurement: mass	Uses scientific scales (and other instruments for measuring mass) carefully and appropriately and can do so in both measurement systems.			•	•	•	•	•	•	272
Science	Being a Scientist: Measurement	Physical science: Rulers and measuring tapes	Uses various rulers and measurin tapes carefully and appropriately to make observations in relation to physical science explorations and can do so in both measurement systems.	g		•	•	•	•	•	•	273
Science	Being a Scientist: Measurement	Life science: Using a thermometer in life science 3	Uses a thermometer carefully and appropriately in classroom experiments and earth-science related activities.	1		•	•	•	•	•	•	274
Science	Being a Scientist: Observation - Gathering & Analyzing Data	Classification by physical or chemical properties	Groups and classifies objects or data according to physical or chemical properties.			•	•	•	•	•	•	275
Science	Being a Scientist: Observation - Gathering & Analyzing Data	Using more powerful hand magnifiers	Uses a hand magnifier carefully and appropriately to investigate objects on a larger scale.			•	•	•	•	R	R	276

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 K	G 1st	2nd	3rd	4th	5th	6th	ID #
Science	Being a Scientist: Observation - Gathering & Analyzing Data	Parts of the microscope and correct use 1	Understands the various parts of the microscope, their functions and how to use a microscope carefully and appropriately.				•	•	•	•	277
Science	Being a Scientist: Observation - Gathering & Analyzing Data	Parts of the microscope and correct use 2	Uses various microscopes carefully and appropriately to analyze specimens.				•	•	•	•	278
Science	Being a Scientist: Observation - Gathering & Analyzing Data	Microscope: preparing slides	Prepares own slides, using either dry or wet mount.				•	•	•	•	279
Science	Being a Scientist: Observation - Gathering & Analyzing Data	Precise descriptions of objects being studies	Demonstrates objective observational skills by accurately describing the physical properties of objects.			•	•	•	•	•	280
Science	Being a Scientist: Observation - Gathering & Analyzing Data	Gathering data samples	Demonstrates at least two techniques for obtaining samples of data.				•	•	•	•	281
Science	Being a Scientist: Observation - Gathering & Analyzing Data	Classification of objects with precision	Classifies objects correctly.				•	•	•	•	282
Science	Being a Scientist: Scientific Experimentation 1	The Scientific Method	Describes accurately the steps of the Scientific Method.				•	•	•	•	283
Science	Being a Scientist: Scientific Experimentation 1	Defining and testing a Scientific Hypothesis	Understands the meaning of a Hypothesis and conducts a simple experiment to prove or disprove a Scientific Hypothesis.	2			•	•	•	•	284
Science	Being a Scientist: Scientific Experimentation 1	Reporting outcomes of a scientific experiments ad drawing conclusions	Accurately records findings from a science experiment/project and draws objective conclusions from the data.				•	•	•	•	285
Science	Being a Scientist: Scientific Experimentation 1	Preparing and interpreting graphs and charts that display the result of an experiment	Accurately records findings from a science experiment/project and draws objective conclusions from the data, using graphs or charts.				•	•	•	•	286

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Science	Being a Scientist: Scientific Experimentation 1	Distinguishes between observations and inferences	Distinguishes between observations and inferences in science experiments or investigative experiences.				•	•	•	•	287
Science	Being a Scientist: Scientific Experimentation 2	Demonstrations and experiments	Explains the difference between a demonstration and an experiment.	1			•	•	•	•	288
Science	Being a Scientist: Scientific Experimentation 2	Designing a science experiment	Designs own science experiment (understands the concept of variables), conducts the experiment, records observations and data, and draws conclusion from the results.				•	•	•	•	289
Science	Classifying: Taxonomy 1	Differences among the kingdoms of life	Observes differences in various specimens representing the different kingdoms.		•	•	•	•	•	•	290
Science	Classifying: Taxonomy 1	Rationale behind the classification scheme for plants and animals	Discusses and understands the rationale of why the different life forms on Earth are classified.				•	•	•	•	291
Science	Classifying: Taxonomy 1	The Six Kingdoms and their subdivisions	Discusses the Six Kingdoms or the Three- Domain System and the subdivisions within these; is aware that scientists are continually making discoveries that might change this structure.				•	•	•	•	292
Science	Classifying: Taxonomy 2	Introduction to the Chinese Boxes	Works with the Chinese Boxes to develop an understanding of one type of classification system.	,			•	•	•	•	293
Science	Classifying: Taxonomy 2	Investigating using the Chinese Boxes	Uses the Chinese Boxes to spark investigations within any classification area.				•	•	•	•	294
Science	Classifying: Taxonomy 3	Difference between living and non- living organisms	Discovers and explains the differences between different living and non-living organisms.		•	•	R				295
Science	Classifying: Taxonomy 3	The differences between plants and animals	Discovers and explains the differences between plants and animals.		•	•	R				296
Science	Classifying: Taxonomy 3	The differences between plant and animal cell structures	Discovers and explains the differences between plant and animal cell structures.				•	•	•	R	297

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG 1s	t 2nd	3rd	4th	5th	6th	ID #
Science	Classifying: Taxonomy 3	Differences between plants, animals, and prokaryotic organisms	Discovers and explains the differences between plants, animals, and prokaryotic organisms.						•	•	298
Science	Classifying: Taxonomy 3	The functions of different cells within an organism	Identifies and understands that there are different cells within an organism, which perform different functions.						•	•	299
Science	Classifying: Taxonomy 3	The differences between the cell structures of plants, animals, and prokaryotic organisms	Discovers and explains the differences between the cell structures of plants, animals, and prokaryotic organisms.						•	•	300
Science	Study of Animals 1	Similarities and differences in various mammals	Discovers, identifies, and explains (in different ways) the similarities and differences in various Mammals.	5	•	•	•	R			301
Science	Study of Animals 1	Similarities and differences in various fish	Discovers, identifies, and explains (in different ways) the similarities and differences in various Fish.	5		•	•	R			302
Science	Study of Animals 1	Similarities and differences in various birds	Discovers, identifies, and explains (in different ways) the similarities and differences in various birds.	5		•	•	R			303
Science	Study of Animals 1	Similarities and differences in various amphibians	Discovers, identifies, and explains (in different ways) the similarities and differences in various amphibians.	5	•	•	•	R			304
Science	Study of Animals 1	Similarities and differences in various reptiles	Discovers, identifies, and explains (in different ways) the similarities and differences in various reptiles			•	•	R			305
Science	Study of Animals 1	Similarities and differences between vertebrates and invertebrates	Discovers, identifies, and explains (in different ways) the similarities and differences between vertebrates and invertebrates.	3	•	•	•	R			306
Science	Study of Animals 1	Similarities and differences in various insects	Discovers, identifies, and explains (in different ways) the similarities and differences in various Insects.			•	•	R			307
Science	Study of Animals 1	Similarities and differences in various molluses	Discovers, identifies, and explains (in different ways) the similarities and differences in various Molluscs.	3		•	•	R			308
Science	Study of Animals 1	Similarities and differences in various crustaceans	Discovers, identifies, and explains (in different ways) the similarities and differences in various Crustaceans.	;		•	•	R			309

Commonly, by the end of the span of age or grade levels indicated below, students will be able to demonstrate the following skills, knowledge, and/or understanding:

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Science	Study of Animals 2	Needs of different animals for food	Discovers, identifies, and explains (in different ways) the needs of different animals regarding food.		•	•	•	R			310
Science	Study of Animals 2	The Food Web	Discovers, identifies, and explains (in different ways) the role of different animals in the Food Web.		•	•	•	•	•	R	311
Science	Study of Animals 2	Different nutritional needs of herbivores, carnivores, and omnivores	Discovers, identifies, and explains (in different ways) the different nutritional needs of herbivores, carnivores, and omnivores.				•	•	•	R	312
Science	Study of Animals 3	The different adaptations of herbivores, carnivores, and omnivores	Discovers, identifies, and explains (in different ways) the different adaptations of herbivores, carnivores, and omnivores.				•	•	•	•	313
Science	Study of Animals 3	Adaptations of animals to specific biome environments	Discovers, identifies, and explains (in different ways) the adaptations of animals to specific biome environments.				•	•	•	R	314
Science	Study of Animals 4	How different animals reproduce	Discovers, identifies, and explains (in different ways) how different animals reproduce.				•	•	•	•	315
Science	Study of Animals 4	Reproduction of microscopic organism	Discovers, identifies, and explains (in different ways) how microscopic organisms reproduce.				•	•	•	•	316
Science	Study of Animals 5	Role of camouflage as a defense mechanism	Discovers, identifies, and explains (in different ways) the role of camouflage as a defense mechanism and other defense strategies animals use.		•	•	•	R			317
Science	Study of Animals 6	Internal anatomy of different animals	Discusses and understands the internal anatomy of different animals.				•	•	•	•	318
Science	Study of Animals 6	Introduction to human anatomy 1	Explains, in simple terms, the functions of the major organs of our bodies: brain, heart, lungs, stomach, intestines.	Ι • •	•	•	•				319
Science	Study of Animals 6	Introduction to human anatomy 1	Explains, in simple terms, the functions of the major organs of our bodies: brain, heart, lungs, stomach, intestines, as well as our skin.	I • •	•	•	•				320
Science	Study of Animals 6	Introduction to human anatomy 2	Can name some of the major bones found in the human skeletal system, including the skull, spinal column, jaw, pelvis, ribs, and shoulder blades.				•	•	•	•	321

Copyright 2012 The Montessori Foundation

Area	Strand	Lesson/Material	Curriculum Element	Age 3 A	Age 4 KO	G 1st	2nd	3rd	4th	5th	6th	ID #
Science	Study of Animals 6	Introduction to human anatomy 2	Discusses and understands the internal anatomy and functions of the different systems in the human body: including skin, muscles, organs (including the kidneys, liver,eyes, sense of taste, and sense of smell), the endocrine system, and the nervous system.					•	•	•	•	322
Science	Study of Animals 6	Introduction to human anatomy 2	Can name the major bones found in the human skeletal system, including the skull, spinal column, vertebrae, jaw, pelvis, ribs, sternum, shoulder blades/clavicles, humerus, ulna, radius, femur, tibia, fibula.	,				•	•	•	•	323
Science	Study of Animals 7	Relationship between people and animals	Discusses and explains (in different ways) the varied relationships humans have with animals: food, pets, entertainment, sport.					•	•	•	•	324
Science	Study of Animals 7	How humans have affected animal habitats	Discusses and explains (in different ways) the effects humans have had on animals in their natural habits.					•	•	•	•	325
Science	Study of Animals 7	Animal husband <del>r</del> y	Discusses and explains (in different ways) the different aspects of animal husbandry.					•	•	•	•	326
Science	Botany 1	Identifying local plants, trees, and flowers	Identifies common trees, flowers, and classroom plants around the school.			•	•	•	R			327
Science	Botany 1	Identifies common trees and flowers by specific criteria	Uses specific criteria and identifies common trees and flowers.			•	•	•	R			328
Science	Botany 1	Introduction to Field Guides	Uses a field guide to assist in identifying various plants.					•	•	•	•	329
Science	Botany 1	The parts of a flower	Identifies and explains (in different ways) the parts of a flower.		Ι	•	•	•	•	R		330
Science	Botany 1	The parts of a seed	Identifies and explains (in different ways) the parts of a seed.			•	•	•	•	R		331
Science	Botany 1	The parts of a tree	Identifies and explains (in different ways) the parts of a tree.		Ι	•	•	•	•	R		332

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Science	Botany 1	The parts of a leaf	Identifies and explains (in different ways) the parts of a leaf.		Ι	•	•	•	•	R		333
Science	Botany 1	Botanical names for leaf shapes	Identifies and explains (in different ways) the botanical names for leaf shapes.					•	•	•	R	334
Science	Botany 1	Botanical terms for leaf margins	Identifies and explains (in different ways) the botanical terms for leaf margins.					•	•	•	R	335
Science	Botany 1	Botanical terms for leaf venation	Identifies and explains (in different ways) the botanical terms for leaf venation.					•	•	•	R	336
Science	Botany 1	Botanical terms for root types	Identifies and explains (in different ways) the botanical terms for root types.					•	•	•	R	337
Science	Botany 2	Monocots and dicots	Discovers, identifies, differentiates, and explains (in different ways) the characteristics of monocots and dicots.					•	•	•	•	338
Science	Botany 2	Bryophytes and tracheophytes	Discovers, identifies, differentiates, and explains (in different ways) the characteristics of bryophytes and tracheophytes.					•	•	•	•	339
Science	Botany 2	Angiosperms and gymnosperms	Discovers, identifies, differentiates, and explains (in different ways) the characteristics of angiosperms and gymnosperms.					•	•	•	•	340
Science	Botany 3	The function of roots	Discovers, identifies, and explains (in different ways) the function of roots.	2				•	•	•	•	341
Science	Botany 3	The function of flowers	Discovers, identifies, and explains (in different ways) the function of flowers.	3				•	•	•	•	342
Science	Botany 3	The function of fruits	Discovers, identifies, and explains (in different ways) the function of fruit.	-				•	•	•	•	343
Science	Botany 3	Different types of fruits	Discovers, identifies, and explains (in different ways) the different types of fruits.	;				•	•	•	•	344
Science	Botany 3	The function of seeds	Discovers, identifies, and explains (in different ways) the function of a seed.	5				•	•	•	•	345

Area	Strand	Lesson/Material	Curriculum Element	Age 3.	Age 4	KG 1	st 2r	d 3rd	4th	5th	6th	ID #
Science	Botany 3	How seeds are dispersed	Discovers, identifies, and explains (in different ways) how seeds have adapted to disperse themselves.	3				•	•	•	•	346
Science	Botany 3	Function of the plant stem	Discovers, identifies, and explains (in different ways) the function of the plant stem.	3				•	•	•	•	347
Science	Botany 3	The circulatory system of the plant stem	Discovers, identifies, and explains (in different ways) the circulatory system of the plant stem.	5				•	•	•	•	348
Science	Botany 3	The function of leaves and process of Photosynthesis	Discovers, identifies, and explains (in different ways) the function of leaves and the process of Photosynthesis.	3				•	•	•	•	349
Science	Botany 4	Why plants need to carry out the function of Photosynthesis	Discovers, identifies, and explains (in different ways) the basic needs of plants to carry out Photosynthesis.	5				•	•	•	•	350
Science	Botany 4	The basic needs of plants	Discovers, identifies, and explains (in different ways) the basic needs of plants.	5				•	•	•	•	351
Science	Botany 4	Plants contain water	Discovers, identifies, and demonstrates that plants contain water.					•	•	•	•	352
Science	Botany 4	How plants adapt to the environment	Discovers, identifies, and demonstrates that plants adapt to their environment.					•	•	•	•	353
Science	Botany 4	Plants grow in predictable patterns	Discovers, identifies, and demonstrates that plants grow in predictable patterns.					•	•	•	•	354
Science	Botany 5	How people use plants	Discovers, identifies, explains, and demonstrates the varied relationships between humans and plants: food, clothing, furniture, housing, medicinal, and so on.					•	•	•	•	355
Science	Care of Plants	Caring for indoor plants	Actively participates in the appropriate care of indoor classroom plants.	Ι	•	•	•	•	•	•	•	356
Science	Care of Plants	Root cuttings	Actively researches and/or participates in performing root cuttings of classroom plants for proliferation.				• •	•	•	•	•	357
Science	Care of Plants	Plants' need for light and water	Actively researches and demonstrates knowledge of different plants' needs regarding water and light.					•	•	•	•	358

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Science	Care of Plants	How seeds should be planted	Actively researches and demonstrates knowledge of how to plant seeds and the differing requirements needed for different seed varieties.	t			•	•	•	•	359
Science	Care of Plants	Cold frames and their use in seed germination	Actively researches and demonstrates knowledge of cold frames and their use in seed germination.				•	•	•	•	360
Science	Care of Plants	Growing vegetables	Actively researches and demonstrates knowledge of raising a crop of vegetables.				•	•	•	•	361
Science	Care of Plants	Plant needs and designing the layout of a garden	Actively researches and demonstrates knowledge of the needs of a variety of plants in designing the layout of a garden.				•	•	•	•	362
Science	Care of Plants	Container gardens	Demonstrates appropriate knowledge in designing and caring for container gardens, including either flowering plants, herbs, or vegetables.				•	•	•	•	363
Science	Care of Plants	Stakes and trellises	Actively researches and demonstrates knowledge of when and how to use stakes and trellises.	L			•	•	•	•	364
Science	Care of Plants	Chemical and organic fertilizers	Actively researches and demonstrates knowledge of chemical and organic fertilizers, the pros and cons of each, and the use of these.				•	•	•	•	365
Science	Care of Plants	Chemical versus organic pest control	Actively researches and demonstrates knowledge of chemical versus organic pest control and pros and cons of each.				•	•	•	•	366
Science	Care of Food	Food preservation: Why food spoils and how we can preserve it	Actively researches and demonstrates understanding of preventing food from being spoiled by insects, rodents, micro organisms.	-			•	•	•	•	367
Science	Care of Food	Storing food to prevent spoilage	Actively researches and demonstrates understanding of how to store food to prevent spoilage.				•	•	•	•	368
Science	Care of Food	Cleaning fruits and vegetables	Actively researches and demonstrates understanding of how to clean fruits and vegetables to prevent contamination.	5			•	•	•	•	369
Science	Care of Food	Methods to extend the shelf-life of food	Actively researches and demonstrates understanding of different methods of extending the shelf-life of food.				•	•	•	•	370

Area	Strand	Lesson/Material	Curriculum Element	Age 3	3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Science	Ecosystems 1	Food chains and food webs	Demonstrates and explains (using different methods) the difference between a food chain and a food web.						٠	٠	•	•	371
Science	Ecosystems 1	Roles of different organisms in a food web	Demonstrates and explains (using different methods) the roles of the different organisms in a food web.						•	•	•	•	372
Science	Ecosystems 1	Roles of the different organisms in a food web according to type of environment	Demonstrates and explains (using different methods) the roles of the different organisms in a food web within a given environment.						•	•	•	•	373
Science	Ecosystems 1	Predators and prey	Demonstrates an understanding (by explaining using different methods) the role of predator and a prey.	l					•	•	•	•	374
Science	Ecosystems 1	Population balance and overpopulation	Demonstrates and explains (using different methods) population balance and the concept of overpopulation within a food web.						•	•	•	•	375
Science	Ecosystems 1	Scavengers	Demonstrates an understanding (by explaining using different methods) the role of scavengers in an ecosystem.						•	•	•	•	376
Science	Ecosystems 1	The role of saprotrophs (decomposers) in an ecosystem	Demonstrates an understanding (by explaining using different methods) the role of saprotrophs (decomposers) in an ecosystem.						•	•	•	•	377
Science	Ecosystems 1	Bio-degradable, recyclable, and non- degradable	Demonstrates an understanding (by explaining using different methods) the differences between bio-degradable, recyclable, and non-degradable.								•	•	378
Science	Ecosystems 1	Introduction to ecological relationships	Demonstrates an understanding (by explaining using different methods) the ecological relationships among all living organisms within a specific environment.								•	•	379
Science	Ecosystems 2	Adaptation and survival	Demonstrates an understanding (by explaining using different methods) that the survival and success of living organisms over time depends on their ability to adapt.								•	•	380
Science	Ecosystems 2	How animals have adapted to survive	Demonstrates an understanding (by explaining using different methods) of some adaptations that have occurred in living organisms that have impacted their survival.								•	•	381

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KC	3 1st	2nd	3rd	4th	5th	6th	ID #
Science	Ecology	What causes water pollution?	Actively researches and explains the different forms of water pollution.				•	•	•	•	382
Science	Ecology	Impact of pollution on the oceans	Actively researches and explains issues pertaining to water pollution and solutions within the world's oceans.						•	•	383
Science	Ecology	Acid rain	Actively researches and explains issues pertaining to acid rain and the effects it has on living organisms.						•	•	384
Science	Ecology	Has water pollution affected our local community?	Actively researches and explains issues pertaining to water pollution with special attention to the local environment's different bodies of water and their specific issues and concerns.						•	•	385
Science	Ecology	How does water pollution affect human beings?	Actively researches and explains issues pertaining to water pollution with special attention to the effects this has on human needs.						•	•	386
Science	Ecology	Water treatment plants	Actively researches and explains the role of water treatment plants and the variety of different modern technologies being used to purify water for human needs.						•	•	387
Science	Ecology	Indoor and outdoor air pollution	Actively researches and explains the different forms of indoor and outdoor air pollution.				•	•	•	•	388
Science	Ecology	What causes air pollution?	Actively researches and explains the different causes of air pollution.				•	•	•	•	389
Science	Ecology	The debate over greenhouse gases and global warming	Actively researches and explains the debate regarding greenhouse gases and global warming, including all opinions.						•	•	390
Science	Ecology	Effects of air pollution on weather and the environment	Actively researches and explains issues pertaining to air pollution, with special attention to the effects on weather patterns, changes in migration patterns of different species, destruction of existing habitats, and so on.						•	•	391
Science	Ecology	How has air pollution affected humans?	Actively researches and explains issues pertaining to air pollution, with special attention to the effects this has on humans.						•	•	392



# Curriculum Scope & Sequence The Art Curriculum

Art is not a separate area of the Montessori curriculum; it is an integral component. Throughout the day, even the youngest students are surrounded by the beauty of the materials and activities that Dr. Montessori developed for each developmental level.

From the smooth, simple elegance of the Geometric Solids to the ever-increasing complexities of drawing using the Metal Insets, Montessori uses all of the children's senses to promote an awareness and appreciation of the beauty in all things — animate and inanimate.

In the early years, children are free to spend quiet moments in a special art corner of their classroom: painting, drawing, or working with age-appropriate crafts. Some Montessori schools will employ the talents of an art specialist, and many schools expand on their art programs through special after-school workshops.

Older students will incorporate art into their lessons when studying history, science, math, and international cultures. Art and music appreciation are re-introduced in greater depth throughout the years, and students of all ages enjoy performing in dramatic and musical productions for their families and at special school-wide celebrations.







## Art Curriculum . 2

#### How to Read the Code of Dots and Letters Used in the Scope and Sequence:

Montessori does not organize curriculum by the grade level at which topics are to be taught. We assume that children learn at different paces and learn best in different ways. In most cases, students in Montessori programs will work on any given skill or concept over several years. We introduce students to new lessons as soon as they seem to be ready. Likewise, we have a plan of what Montessori students ought to learn and the age/grade levels at which which we expect mastery from most students.

Instead of arranging our curriculum by grade level, we organize it by the subsets of concepts and skills (Strands) and the sequence in which they will be taught. In our Curriculum Scope and Sequence, to the right of the list of curriculum elements, we use a series of vertical columns to represent a given span of ages or grades. We use large dots to indicate the age or grade levels at which we anticipate a given lesson will be presented. Since we do not follow a grade-by-grade curriculum, the age or grade when a child will actually be ready to begin work depends on his or her developmental readiness. Our Dot Code is simply a guideline for Montessori educators.

When viewed in color on a computer, the dots follow a pattern of green, blue, and red, which is repeated at each Montessori three-year program cycle. The color coding makes it somewhat easier to see at which age/grade levels we anticipate children will work on concepts or skills. Normally, students return to work many times over two years or longer before they truly understand what they have studied and retain it over time.

	Montes	so <del>r</del> i Foundat	ion Curriculum Scop	e and	I S	eq	uer	ıce	: Aą	ges	3 t	o 12	2
	C V	Commonly, by the e vill be able to demo	nd of the span of age or grade lonstrate the following skills, kno	evels in wledge,	dica and	ited l/or	belo und	w, st ersta	uden ndin	ts g:			
Area	Strand	Lesson/Material	Curriculum Element	Age 3 A	ge 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Mathematics	Fundamentals of the Decimal System: Number Concepts: 2	Golden Bead Materials	Demonstrates an understanding of the concept of change between hierarchies, using additive quantities with Golden Bead Materials.	i - 3	•	•	R						25
Mathematics	Decimal System: Introduction to Place Value: 2	Constructing Quantities with the Golden Beads and Number Cards	Constructs, identifies, and names the quantity (naming correctly from left to right), up to 9,999, represented by an assembly of Golden Beads.	9	•	•	R						26

As you can see by the example above, we expect that the two Math skills shown (items number 25 and 26) will normally be introduced at age four, and we anticipate that children will continue to work on them over the following year. The "R" shown in the 1st-grade column indicates that we suggest that the teachers ought to review and re-test to see if the child still understands the concept or skill. In some case the symbol "I" is used to indicate that a child should be given a first introduction to a concept or skill at a given age/grade level. Students often work on some concepts and skills over the course of several years.

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Visual Arts	Elements of Visual Art	Line	Explores types of lines using different media.	• •	•	•	•	•	•	R		1
Visual Arts	Elements of Visual Art	Line	Uses words to describe different types of lines: <i>thick, thin, diagonal,</i> <i>borizontal, vertical, straight, curly,</i> <i>wary, scalloped zigzag, long</i> and <i>short.</i>	• •	•	•	R					2
Visual Arts	Elements of Visual Art	Line	Explores lines using different pencils ranging through HB, H, and B types.	•	•	•	•	•	•	R		3
Visual Arts	Elements of Visual Art	Line	Explores types of lines using different media: strips of paper; thin and thick felt markers; crayons; and paint with different brushes.	• •	•	•	R					4
Visual Arts	Elements of Visual Art	Line	Alternates thin and thick stripes with different media.	• •	•	•	R					5
Visual Arts	Elements of Visual Art	Line	Creates line designs (complexity increases with age and ability).	• •	•	•	•	•	•	R		6
Visual Arts	Elements of Visual Art	Shape	Explores types of shapes using different media.	• •	•	•	R					7
Visual Arts	Elements of Visual Art	Shape	Uses words to describe different types of shapes: <i>blob, outline,</i> geometrical names where appropriate.	• •	•	•	R					8
Visual Arts	Elements of Visual Art	Patterning	Explores repeat patterns using various stamps (e.g., vegetable stamps).	• •	•	•	•	•	•	R		9
Visual Arts	Elements of Visual Art	Patterning	Explores making square patterns with various media.	• •	•	•	•	•	•	R		10
Visual Arts	Elements of Visual Art	Patterning	Explores making half-drop patterns with various media.	• •	•	•	•	•	•	R		11
Visual Arts	Elements of Visual Art	Patterning	Explores making alternative motifs with a half-drop pattern with various media.	• •	•	•	•	•	•	R		12
Visual Arts	Elements of Visual Art	Patterning	Explores making complex net patterns with various media.	• •	•	•	•	•	•	R		13

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Visual Arts	Elements of Visual Art	Patterning	Explores symmetrical and mirror images with various media.	• • •	•	•	•	•	R		14
Visual Arts	Elements of Visual Art	Patterning	Explores patterns and designs from various cultures and attempts to replicate those styles.	• • •	•	•	•	•	•	•	15
Visual Arts	Elements of Visual Art	Color	Explores primary colors using various media.	• • •	R						16
Visual Arts	Elements of Visual Art	Color	Explores mixing primary colors to produce secondary colors using various media.	• • •	R						17
Visual Arts	Elements of Visual Art	Color	Names all primary and secondary colors in context of art media.	• • •	R						18
Visual Arts	Elements of Visual Art	Color	Uses more advanced language of color in context of art media.	• • •	•	•	•	•	•	•	19
Visual Arts	Elements of Visual Art	Color	Explores color value with various media.	• •	•	•	•	•	•	•	20
Visual Arts	Elements of Visual Art	Color	Explores effects of contrasting color.	• •	•	•	•	•	•	•	21
Visual Arts	Elements of Visual Art	Color	Makes plaid pattern with overlapping colors.		•	•	•	•	•	•	22
Visual Arts	Elements of Visual Art	Color	Explores tints and shades with black and white.	• • •	•	•	•	•	•	•	23
Visual Arts	Elements of Visual Art	Color	Explores tints and shades by adding black or white to a hue.	• •	•	•	•	•	•	•	24
Visual Arts	Elements of Visual Art	Color	Explores tones by adding various grays to pure hue.		•	•	•	•	•	•	25
Visual Arts	Elements of Visual Art	Color	Produces own color wheel - six part.	• • •	R						26

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Visual Arts	Elements of Visual Art	Color	Produces own color wheel - twelve part.	•	•	•	•	•	•	R		27
Visual Arts	Elements of Visual Art	Color	Produces own color wheel - thirty-six part.					•	•	•	•	28
Visual Arts	Elements of Visual Art	Color	Uses correct terminology to name pigments (e.g., <i>cobalt blue, Prussian</i> <i>blue</i> , etc.).	2				•	•	•	•	29
Visual Arts	Elements of Visual Art	Textures	Explores textures by making rubbings using different media.	• •	•	•	•	•	•	•	•	30
Visual Arts	Elements of Visual Art	Textures	Uses artistic rubbing techniques.	•	•	•	•	•	•	•	•	31
Visual Arts	Elements of Visual Art	Textures	Explores various media to create texture in artwork.	•	•	•	•	•	•	•	•	32
Visual Arts	Elements of Visual Art	Textures	Makes a collage with rubbings.	•	•	•	•	•	•	•	•	33
Visual Arts	Elements of Visual Art	Space and composition	Explores composition in art with various media.	•	•	•	•	•	•	•	•	34
Visual Arts	Elements of Visual Art	Space and composition	Fills space with various shapes and line combinations.	•	•	•	•	•	•	•	•	35
Visual Arts	Elements of Visual Art	Light and shadow	Explores negative and positive images with various media.	•	•	•	•	•	•	•	•	36
Visual Arts	Elements of Visual Art	Light and shadow	Uses shading to represent shadow and dimension.	7	•	•	•	•	•	•	•	37
Visual Arts	Elements of Visual Art	Light and shadow	Becomes aware of shadow and effects of light direction.	•	•	•	•	•	•	•	•	38
Visual Arts	Elements of Visual Art	Light and shadow	Explores shadow/light and shade with various media.	•	•	•	•	•	•	•	•	39

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG 1st 2nd 3rd	4th 5th 6th	n ID#
Visual Arts	Using Art Materials and Media	Cutting	Uses scissors to perform initial cutting exercises: one snip.	• • •		40
Visual Arts	Using Art Materials and Media	Cutting	Uses scissors to perform initial cutting exercises: on a diagonal.	• • •		41
Visual Arts	Using Art Materials and Media	Cutting	Uses scissors to perform initial cutting exercises: two or more snips.	• • •		42
Visual Arts	Using Art Materials and Media	Cutting	Uses scissors to perform initial cutting exercises: zigzag lines.	• • •		43
Visual Arts	Using Art Materials and Media	Cutting	Uses scissors to perform initial cutting exercises: cutting on a curved line.	• • •		44
Visual Arts	Using Art Materials and Media	Cutting	Cuts out a square or rectangle.	• • •		45
Visual Arts	Using Art Materials and Media	Cutting	Cuts a free-form shape.	• • •		46
Visual Arts	Using Art Materials and Media	Cutting	Cuts a shape from the middle of page.	a • • •		47
Visual Arts	Using Art Materials and Media	Cutting	Cuts spirals.	• • •		48
Visual Arts	Using Art Materials and Media	Cutting	Cuts corners.	• • •		49
Visual Arts	Using Art Materials and Media	Cutting	Cuts folded paper.	• • •		50
Visual Arts	Using Art Materials and Media	Cutting	Cuts chain links.	• • •		51
Visual Arts	Using Art Materials and Media	Cutting	Applies cutting on lines and free hand to produce various items.	• • • • • •	• R	52

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG 1	st 2no	l 3rd	4th	5th	6th	ID #
Visual Arts	Using Art Materials and Media	Gluing	Glues mosaics.	• •	•						53
Visual Arts	Using Art Materials and Media	Gluing	Glues super-imposed forms.	• •	•						54
Visual Arts	Using Art Materials and Media	Gluing	Glues patterns with various medi and with increasing complexity.	a • •	•	• •	•	•	R		55
Visual Arts	Using Art Materials and Media	Gluing	Creates a collage with different media.	• •	•	• •	•	•	•	•	56
Visual Arts	Using Art Materials and Media	Gluing	Uses edge-gluing techniques to create three-dimensional structures.	•	•						57
Visual Arts	Using Art Materials and Media	Gluing	Makes paper chains.	• •	•	•	•	•	R		58
Visual Arts	Using Art Materials and Media	Printing and stamping	Uses stamping materials effectively.	• •	•	• •	•	•	R		59
Visual Arts	Using Art Materials and Media	Printing and stamping	Explores different media for printing and stamping.	•	•	•	•	•	•	•	60
Visual Arts	Using Art Materials and Media	Printing and stamping	Uses printing and stamping techniques in projects.			• •	•	•	•	•	61
Visual Arts	Using Art Materials and Media	Painting	Explores texture, line, and form with one color at a time.	• •	•						62
Visual Arts	Using Art Materials and Media	Painting	Uses two colors together without mixing (keeping brush clean).	• •	•						63
Visual Arts	Using Art Materials and Media	Painting	Uses three primaries to mix other colors.	•	•						64
Visual Arts	Using Art Materials and Media	Painting	Paints with tempera.	• •	•						65

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Visual Arts	Using Art Materials and Media	Painting	Paints with water colors.	• • •							66
Visual Arts	Using Art Materials and Media	Painting	Paints with transparent water colors.	• •	•	•	•	•	•	•	67
Visual Arts	Using Art Materials and Media	Painting	Paints with acrylics.		•	•	•	•	•	•	68
Visual Arts	Using Art Materials and Media	Painting	Paints with gouache.		•	•	•	•	•	•	69
Visual Arts	Using Art Materials and Media	Painting	Paints with oils.		•	•	•	•	•	•	70
Visual Arts	Using Art Materials and Media	Painting	Explores crayon resist painting techniques.	• • •	•	•	•	•	R		71
Visual Arts	Using Art Materials and Media	Painting	Explores textured painting techniques.	• • •	•	•	•	•	R		72
Visual Arts	Using Art Materials and Media	Painting	Explores wet-on-wet painting.	• • •	•	•	•	•	•	R	73
Visual Arts	Using Art Materials and Media	Paper Folding and Cutting	Explores elementary origami folds (valley and mountain folds)	• • •	•	•	•	•	•	•	74
Visual Arts	Using Art Materials and Media	Paper Folding and Cutting	Explores various uses of paper to create texture.	• • •	•	•	•	•	•	•	75
Visual Arts	Using Art Materials and Media	Paper Folding and Cutting	Makes paper snowflakes.	• • •	R						76
Visual Arts	Using Art Materials and Media	Paper Folding and Cutting	Uses double-sided paper to creat interesting textures.	e • • •	R						77
Visual Arts	Using Art Materials and Media	Paper Folding and Cutting	Follows simple origami patterns to create objects.	• • •	•	•	•	•	•	•	78

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4	KG	1st	2nd	3rd	4th	5th	6th	ID #
Visual Arts	Using Art Materials and Media	Paper Folding and Cutting	Follows more complex origami patterns to create objects.	• •	•	•	•	•	•	•	•	79
Visual Arts	Using Art Materials and Media	Threading	Makes chains with various media	•	•	•	•	•	•	•	٠	80
Visual Arts	Using Art Materials and Media	Threading	Explores repeating patterns with various media.	• •	•	•	•	•	•	R		81
Visual Arts	Using Art Materials and Media	Modeling	Explores kneading, stretching, squeezing, and rolling clay.	• •	•	•	R					82
Visual Arts	Using Art Materials and Media	Modeling	Makes simple pinch pot with clay	•	•	•	R					83
Visual Arts	Using Art Materials and Media	Modeling	Makes coil pot with clay.	• •	•	•	R					84
Visual Arts	Using Art Materials and Media	Modeling	Makes simple slab constructions with clay.	• •	•	•	R					85
Visual Arts	Using Art Materials and Media	Modeling	Adds decoration to clay constructions.	• •	•	•	R					86
Visual Arts	Using Art Materials and Media	Modeling	Makes plaster of Paris molds.	•	•	•	•	•	•	•	•	87
Visual Arts	Using Art Materials and Media	Modeling	Uses vocabulary such as <i>wedging, slip</i> , and names of tools.	• •	•	•	•	•	•	•	•	88
Visual Arts	Using Art Materials and Media	Modeling	Works independently with clay to complete own projects using various techniques.	)				•	•	•	•	89
Visual Arts	Using Art Materials and Media	Modeling	Mixes salt dough.	•	•	•	•	•	•	•	•	90
Visual Arts	Using Art Materials and Media	Modeling	Makes salt-dough figures.	•	•	•	•	•	•	•	•	91

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st 2nd	3rd 4	4th 5th	6th	ID #
Visual Arts	Using Art Materials and Media	Wax Crayon Techniques	Creates batik effect with wax crayons and ink.	• •	• •	•	•	•	92
Visual Arts	Using Art Materials and Media	Wax Crayon Techniques	Explores sgraffito/etching with wax crayons.	• •	• •	•	• •	•	93
Visual Arts	Using Art Materials and Media	Wax Crayon Techniques	Explores melted-wax techniques.	• •	• •	•	• •	•	94
Visual Arts	Developmental Stages in Visual Art	Stages	Explores media through uncontrolled or poorly controllec scribbles.	• • •					95
Visual Arts	Developmental Stages in Visual Art	Stages	Scribbles become controlled with evidence of composition and intentional use of shapes.	• • •					96
Visual Arts	Developmental Stages in Visual Art	Stages	Combines shapes with lines and outlines to build individual line formations.	• • •					97
Visual Arts	Developmental Stages in Visual Art	Stages	Uses lines to create designs.	• • •					98
Visual Arts	Developmental Stages in Visual Art	Stages	Uses symbols (such as mandalas, suns, and radials), as child moves between non-representative exploration and representative art.	• • •					99
Visual Arts	Developmental Stages in Visual Art	Stages	Begins to name elements in art work (sun, mommy, me, etc.).	• • •					100
Visual Arts	Developmental Stages in Visual Art	Stages	Begins to draw recognizable human figures, plants, and objects.	• • •					101
Visual Arts	Developmental Stages in Visual Art	Stages	Combines symbols to make pictures.	• • •	• •	•	• R		102
Visual Arts	Developmental Stages in Visual Art	Stages	Creates early representative artworks; sky and ground appear.	• •	• •	•	• R	_	103
Visual Arts	Developmental Stages in Visual Art	Stages	Creates a picture that tells a story	• •	• •	•	• R		104

Area	Strand	Lesson/Material	Curriculum Element	Age 3 Age 4 KG	1st	2nd	3rd	4th	5th	6th	ID #
Visual Arts	Developmental Stages in Visual Art	Stages	Draws from an object – still-life.	• •	•	•	•	•	R		105
Visual Arts	Developmental Stages in Visual Art	Stages	Draws a person – portrait.	• •	•	•	•	•	R		106
Visual Arts	Developmental Stages in Visual Art	Stages	Draws a landscape using perspective and shading.	• •	•	•	•	•	R		107
Visual Arts	Developmental Stages in Visual Art	Stages	Combines media and techniques to produce original work.	• •	•	•	•	•	R		108
Visual Arts	Photography	Photography	Uses digital camera to take photos in classroom.	• •	•	•	•	•	R		109
Visual Arts	Photography	Photography	Begins to explore composition in own photos.	• •	•	•	•	•	R		110
Visual Arts	Photography	Photography	Uses simple software to manipulate images.		•	•	•	•	R		111
Visual Arts	Photography	Photography	Uses digital photography and software to manipulate images fo own projects.	r		•	•	•	R		112
Visual Arts	Art History	Abstract	Works with pairing and sorting cards of abstract art.	• • •							113
Visual Arts	Art History	Abstract	Studies and discusses representative works from abstract period.	• •	•	•	•	•	R		114
Visual Arts	Art History	Abstract	Creates work in style of abstract period using similar techniques.	• •	•	•	•	•	R		115