Brickton
MONTESSORI

Lower Elementary Curriculum Overview (1st – 3rd grade)

Language

The Lower Elementary language program is designed to develop student's basic skills in reading and writing. As they exit the program, they are expected to be have the ability to "read to learn", to accurately express their feelings, thoughts and needs in both oral and written form, and complete a multi-paragraph research project on an ancient civilization, addressing the fundamental needs of people.

Reading

In the Lower Elementary program, most students enter the classroom knowing their sounds and being able to sound out simple, short vowel words (cvc), like "cat". We solidify their connections between symbols and sounds and progress through the series materials. The *Pink Series* focuses on reading words that include short vowels and individual consonants. The *Blue Series* materials continue to work with short vowels and introduce consonant blends. The *Green Series* materials introduce long vowel combinations, digraphs, phonograms and other irregular spellings in the English language. With each series, the students practice reading, writing and using the words in sentences, orally and on paper. The students also practice reading, writing and spelling sight words.

To help the children understand what they read, we assist them in recognizing main elements of a story, such as character, setting, and conflict. First, we focus on fact based discussions and then move to more abstract ideas such as simple predictions and summaries of what they have read. At the beginning of the year, students are assessed and grouped according to their reading ability levels. We make adjustments as necessary as their skill levels progress. We have a reading specialist who helps to choose appropriate books (fiction and non-fiction), focusing on the reading level and interest of the students. Through reading and discussing these selections with their groups, the students gain skills in comprehension, such as: summarizing, predicting, inferring, using prior knowledge, and making connections to their own experiences. The reading teams also read, practice and present plays to their classmates to build fluency.

Students who need remediation or extra practice with reading comprehension use a workbook series called Starting Comprehension. It includes sight words as well as simple phonetically spelled words and slowly progresses to more advanced activities.

All Lower Elementary students have an older student who is their "Reading Buddy". They meet weekly for a short time to share a book together, focusing on building fluency and having discussions about the books they read.

Grammar and Vocabulary Development
We help the Lower Elementary students acquire proper usage of the English language through continued practice with many concepts. Students are presented the nine parts of speech, beginning with nouns and verbs as the fundamental components to sentence writing. Students associate a symbol with each part of speech and are expected to generate their own examples of each. Once they have a good understanding of the symbols, they begin to symbolize sentences that include the types of words with which they are working. The sentences get progressively harder. Older students may choose to symbolize passages from books or poetry once they have mastered parsing individual sentences. Generally, by the end of their first year, students will have been exposed to all symbols, and in their second and third years, they review and identify them in sentences.

Vocabulary is explored within concepts of word studies, including: antonyms, synonyms, homonyms, suffixes, prefixes, contractions, compound words, abbreviations and alphabetizing. Each concept is introduced while the students are in first grade, and they continue to work on the concepts, furthering their usage and vocabulary to include harder words with more complex meanings. Dictionary usage is strongly encouraged within the context of these lessons to further their understanding.

We use a variety of materials to build spelling skills to support vocabulary and reading development. For phonemic spelling we use the *Pink, Blue and Green series*works mentioned earlier. There is a collection of commonly used sight words for the children to master, with additional sets for advanced spellers. Second and third grade students use a workbook series, Spellwell, which ties phonemic spelling and sight words together into weekly assignments.

Written Communication
We encourage written communication with most works in our classroom having a written extension after completing work with the concrete materials. At the beginning of the year for some first graders, just writing their name, date and the title of their work is enough. As their stamina and fine motor skills build, they are required to do more.

For language mechanics, there are different expectations at different grade levels. All students are expected to have correct spelling in their work if they are copying words from a card. Depending on their skill level, inventive spelling may be acceptable if they are writing without the benefit of the word in front of them. Students are encouraged to review their work to make sure it says what they want it to say, has proper spelling and punctuation.

We handle punctuation rules in a similar way. For example, by the end of first grade, students should know to include a capital letter at the beginning of their sentence and an end mark to complete a sentence. In second grade, we review end marks and begin to introduce different kinds of punctuation marks, such as commas, progressing through all of the marks when the student demonstrates further readiness. Students are assigned to small groups that meet weekly for presentations on new concepts and skills practice.

In writing, we cover many concepts such as descriptive and narrative writing (focusing on beginning, middle, ending and major story elements like character, setting, conflict, etc.), letter writing, poetry and research. The foundations of our writing are based on the Six Traits of Writing, including conventions, ideas, organization, sentence fluency, voice, and word choice.

In first and second grade, many students express interest in completing research projects. There are questions to help guide them in finding the main idea and important facts about their subject. We have binders with finished student research projects which are utilized as fact files for other students. In third grade, the students culminate their Lower Elementary experience with a 13 paragraph research paper on an ancient civilization of their choice. The research process begins in January, broken down into a detailed outline of assignments throughout the remainder of the year, culminating with a final paper and formal presentation in front of the class. Their writing and editing skills are sharpened during this time as they go through the editing process many times to create their finished product.

The students meet for handwriting groups once a week. We begin with printing for first year students, while most second and third year students generally practice cursive. Once the first graders are proficient with printing, they may begin cursive. After all of the designated handwriting sheets are completed, the students choose poems which they transpose from a book.

Oral Communication

When a student enters Lower Elementary, they are expected to be able to pronounce sounds and words correctly. They can share experiences with others and also listen and respond when others are sharing, by practicing waiting their turn. As the students get older, their ability to express themselves with clarity should increase, including using expression and appropriate word choice. Good listening habits are encouraged, like attention and interest in the speaker. During read aloud sessions, students listen and respond to oral questions.

Students practice following oral and written directions beginning with one step and progressing to multi-step. The third year students meet once a week to complete listening activities that help them to develop this even further.

Mathematics

In our Mathematics curriculum, we begin moving from concrete Montessori materials to abstract ideas and concepts. Children are able to experience concepts not only through visual and auditory activities and lessons, but also by kinesthetic activities, which strengthens understanding, leading to mastery. This approach allows students to be introduced to advanced concepts early on and gives them time to practice with the materials to gain mastery.

Numeration

We begin numeration by helping the students understand the structure of the decimal system through work with concrete materials. We cover place value, building symbol to quantity and quantity to symbol, analyzing numbers and exchanging concepts. Students use*Numeral Cards*,

color coded by their place value. *Golden Beads* provide a tangible method to build numbers and display the weights of the number's value. For example, a thousand cube is a thousand times larger than a unit bead. There is a large variety of activity cards for the children to continue their work on numeration using place value.

In addition, students are introduced to beginning concepts with fractions, learning that a fraction is a part of a whole as they build different amounts using concrete fraction pieces. As the students develop an understanding of how to create amounts, they are asked to find equivalents between different fraction families, which support their future understanding of reducing and simplifying. Finally, students do simple operations using common fraction families.

Computation/Operations

The students work with all four operations (addition, subtraction, multiplication and division) beginning with concrete materials (*Golden Beads*) and continue to work with the concepts using more abstract materials until complete abstraction to pencil and paper is present. From *Golden Beads*, the students move on to using the *Stamp Game,* then *Bead Frames* are introduced along with the *Checkerboard* and *Test Tube Division*. Several of these materials cross concepts. For example, the *Stamp Game* is used for subtraction, multiplication and division. The *Bead Frame* is used for addition, subtraction and multiplication. *Checkerboard* is used for more advanced multiplication (multi-digit multipliers) and other materials are used for specific operations. When students are beginning to abstract the concepts, we encourage memorization of facts for each operation as well. By the end of third grade, we expect mastery of addition, subtraction and multiplication facts.

Measurement

The students study the concepts of length, width, height, and perimeter using inches, feet, and centimeters as well as non-standard units of measurement, like a pencil or their finger. They gather information to construct line, bar and pie graphs, in addition to analyzing already prepared graphs. The students work with the concept of weight and learn to balance a scale. Some students also begin to measure angles with a protractor, and we use the *Geometric Cabinet* for studies of perimeter. Additionally, students are taught to compare numbers and use simple strategies for estimation.

Problem Solving

Once a student has sufficient reading ability and some math abstraction is present, word problems are introduced. We begin with cards that include the word problem and a picture illustrating the appropriate equation. Our curriculum spans from simple to multi-step equations involving all four operations and non-essential information. Students learn to analyze the word problems for relevant information, to organize the necessary information into an equation using the proper operation and to answer the question that is being asked.

This is an area of the math curriculum that easily overlaps into many other aspects of Cosmic Education in the Lower Elementary classroom, including the ability to carry out science experiments, read for detail in literature group, and make logical conclusions in general.

Patterns and Relationships
The students study several concepts within patterns and relationships, including the identification and counting of money, odd/even, greater than/less than, sequencing, factors and multiples, and Roman Numerals. The students learn to recognize patterns within a series, analyze the pattern to determine the rule behind it, and then apply the rule to solve problems.

Students have the opportunity to use these skills when working on zoology and botany concepts discovering the relationships between the groupings of plants and animals. They can also see these patterns in language as well, specifically in grammar. This skill can also be used to identify patterns and spatial relationships in art work.

Geometry
The Lower Elementary curriculum begins by introducing the four foundational elements of geometry: point, line, surface and solid. The students classify, compare and create two and three dimensional figures. They work with geometric solids, types of lines, types of angles, triangles, quadrilaterals, and polygons. The materials allow them to see how different shapes are created by more basic ones; for example, a series of triangles creates a polygon or two equilateral triangles make a square. Students also learn the different types of polygons, quadrilaterals and triangles and how each is unique and similar to the others.

Figures in geometry are the fundamentals of drawing. Everything is a shape, and the students have ample opportunities to experience these figures and explore dimensions as an integral part of artistic expression.

Cultural

In our cultural subjects we hold true to Maria Montessori's idea of Cosmic Education. We introduce concepts as "big picture" to spark an interest in the student, encouraging them to ask questions and complete further research, if interested. We begin each year with the *Big Bang Great Lesson* to give an impression of how things came to be. Then we begin to classify different objects and cover concepts such as organic/inorganic, plant/animal, vertebrate/invertebrate.

Science
Coming from Children's House, most of the students' experience with science concepts has been sensorial. We introduce concepts as concretely as possible, using scientific terminology, which increases as more abstract concepts and activities are introduced.

In Zoology, we begin by studying external parts of vertebrates, moving next to invertebrates, using *Three Part Cards* with pictures, vocabulary words and definitions. When it is appropriate,

we bring in specimens for the children to experience. The students observe the classroom pets around the school as an extension of the work. We also study the internal systems of mammals and the human body.

In Botany, we begin by looking at the external parts of plants and then study each part in depth: leaf, flower, fruit, roots, etc. This is an area where it is easy to give the children hands on experiences in the classroom with each lesson. For example, we use plants in the room to discover different root systems and bring in flowers for the students to dissect when we present the parts of the flower.

We conduct science experiments beginning with the states of matter and continue with subjects such as: magnetism, sound, gravity, water, and light. Simple machines and a scale are available in the classroom for the students to use as well. These in class experiences are supplemented with field trips to museums, the Chicago Botanic Garden, or the zoo to further our exploration. We also welcome visits from experts, like a student's grandfather who is a doctor or another student's grandmother who is a former science teacher. Often times, students complete individual research projects or group projects to further their understanding of concepts that interest them.

Social Studies

In History and Geography, we begin by listening to the story of the Big Bang where the students are left with many questions about the formation of the universe.

In geography, we study the creation of the planets, sun and moon, with a special focus on Earth, referring back to the Big Bang. We conduct experiments that give concrete examples of these concepts, including three states of matter and colder than cold. We also look at the internal parts of the Earth as well as land and water forms, types of rocks, types of weather events, and geological map skills. The students use a variety of materials to explore these concepts, including three part cards and real specimens.

Within political geography, students study the names and locations of the continents, followed by the names and locations of countries. Students recreate two-dimensional continent maps using puzzles found in the classroom. They begin by tracing the countries, then labeling the political capital. Further research with an atlas will inform them of the locations of major land and water forms that may be included on their maps as well. Some students will take their research even further by looking up the flags for each country. Through this work, students begin to develop an understanding and appreciation for different cultures.

In History, we study the coming of life on Earth using the *Time Line of Life* which is displayed throughout the year. The students also create their own personal timeline using photographs and brief write ups. They explore the concept of time through studying seasons, months of the year, days of the week, clocks and calendars. Another important part of our History curriculum is studying the *Needs of People*. We use a timeline that begins with prehistoric people and moves through the needs in modern times. The first and second grade students work with this

timeline matching pictures and information about civilizations through the past. The third grade students choose a civilization on which they focus and they complete an in-depth research project of the needs of their chosen civilization.

Specialty Areas

Spanish
Students in the Lower Elementary program receive two small group lessons in Spanish weekly. They learn basic vocabulary and culture through concrete activities and experiences. The emphasis in this program is on spoken language acquisition and cultural appreciation.

Music
Students receive a weekly lesson in music with a music specialist instructor, using the Orff Schulwerk method. Within this method, students develop movement skills, learn musical terminology, gain experience with barred instruments and begin work with recorders. In addition, Lower Elementary students participate in a beginning chorus class once per week.

The Montessori Bells are available in the classroom and extensions from Music class can be completed when assigned. Each day before lunch, the students sing songs to promote a sense of community before dining together.

Art
Students are taught by an art specialist, and they concentrate on working with a variety of media, including pencil, crayon, pastels, watercolor, and clay. They learn the characteristics of each medium and how to use materials responsibly and to their full effect. Examples of each medium by practicing artists support understanding of the uses of various media. Students are taught technique including shading, line, contour, color and lighting.

Physical Education
Physical Education covers gym, health and safety. Classes with our physical education teacher focus on team building, fitness, and sports skills. Our program may include additional on-site and off-site activities, which in recent years have included yoga, zumba, tae kwon do, swimming, ice skating, dancing, and improvisation.

Health and safety is integrated into the daily experiences of the classroom. Presentations and exercises that focus on personal health, welfare and safety are given by classroom teachers, guest presenters and field trips. Topics include healthful eating, cleanliness, the importance of sleep, germ reduction and street crossing safety.