

Montessori Kindergarten Curriculum (4 to 7 years of age)

Kindergarten Program Benefits

The Montessori approach allows children to learn through understanding, rather than through being told. From this understanding your child is able to develop confidence and a joy in learning.

By understanding how children learn the teachers can provide your child with tools and opportunities tailored to the way they experience the world around them. At the same time there is a strong physical dimension to many Montessori activities, encouraging dexterity, balance and appreciation of shapes, colors and sizes.

Learning the Montessori way is, literally, learning for life.

What all these elements have in common is that they are providing the building blocks of future learning, hardwiring your child's capacity to engage with new material and information and providing the tools with which to manipulate it.

So What Is So Special About the Montessori Classroom?

There are four main elements that distinguish it from other traditional classrooms:

1. All equipment is accessible to your child and is always available to the child.
2. Your child has freedom of movement both indoors and out as well as a choice of what to do for much of the day
3. Your child will have personal responsibility for their work; this requires an awareness of the needs of others, avoiding dangerous or hurtful actions, keeping the equipment and resources tidy, putting things away after using them, being good role models for younger children, developing a true social awareness.

4. **Beauty and Harmony:** This aspect is too often ignored by those who focus too much on the content of learning. Montessori felt strongly that the environment must be aesthetically pleasing to encourage learning and concentration. Too many displays can distract children if they are not properly related to their interests. It reflects the manner in which the Montessori classroom is calm and activities are self-directed.

Practical Life Curriculum

Practical Life activities are the activities of everyday life and they are involved in all aspects of life. The child observes these activities in the environment and gains knowledge through the real experience of how to accomplish life skills in a purposeful way. These activities are cultural and specific to the child's time and place.

Practical life activities help give the child a sense of being and belonging, established through participation in daily life with us. Through practical life the child learns about his culture and all about what it is to be human. Practical Life exercises help children to become self-confident, independent and prepare them for other aspects of learning.

These activities revolve around four areas:

Fine Motor Development

- Rolling/Unrolling a rug
- Lifting & Carrying a chair
- Clamping Clothespins
- Dry/Wet Pouring
- Spooning objects from one bowl to another
- Dry transfer using tongs
- Squeezing wet sponge
- Opening and closing jars/boxes
- Using a strainer, dropper, grater and whisk
- Threading/Lacing
- Using tools such as hammers/screwdrivers

Care of Self

- Use of Tissue
- Buttoning, zipping, Tying laces
- Brushing hair
- Putting on an apron
- Walking on the line
- Hand washing & drying
- Use of bathroom
- Coat – putting on, taking off, hanging up
- Folding/Unfolding napkins
- Pairing gloves, socks
- Polishing shoes

Care of Environment

- Dusting shelves/materials
- Crumbing
- Sweeping floor
- Opening/closing water tap to fill a pitcher
- Watering plants in the classroom
- Washing a mirror
- Use of glue
- Apple cutting/slicing
- Arranging flowers
- Cleaning/Scrubbing tables

Grace and Courtesy

- Making eye contact
- Greeting “Hello”/handshake
- Apologizing
- Asking for help
- Excusing oneself
- Handling sharp objects
- Interrupting
- Offering a snack
- Watching/Observing a friend
- Walking around a rug
- Speaking softly
- Individual Snack/Group Snack

In the Kindergarten program, Practical Life emphasizes the development of life skills that support independent thought and action. Learning to set the table, prepare snack, clean and care for the environment and to host guests all enable the child to develop social skills that are needed in modern society.

Sensorial Curriculum

Maria Montessori believed that nothing comes into the mind except through the senses. During the years between three and six, as children develop their senses, their attention is directed toward the environment. The purpose of the Sensorial activities is to help the child in his efforts to sort out the many varied impressions given by the senses. These materials are specifically designed to help the child develop discrimination, order, and to broaden and refine the senses. These materials also help prepare him to be a logical, aware, and perceptive person.

The Sensorial materials are designed with a built in feed back to control of error to show when mistakes have been made. The child then remains independent of your oversight and develops an inner, personal incentive to practice and improve. After experiencing Sensorial activities, the child's sense perceptions will appear inherently structured and capable of comprehending abstract concepts.

Visual discrimination

Develops the difference in dimension, width, length, and size can be found in these materials:

- Pink Tower
- Brown Stair
- Red Rods
- Knobbed Cylinders
- Knobless cylinders
- Color tablets box 1,2,3
- Monomial, Binomial & Trinomial Cube

Tactile Sense

- Touch Boards
- Touch tablets
- Fabric – textures
- Mystery bag

Auditory Sense

- Sound cylinders
- Bells

Olfactory Sense

- Smelling Bottles

Gustatory Sense

- Tasting Tray

Math Curriculum

Learning mathematical concepts in a Montessori classroom begins concretely and progresses towards the abstract. They are developed from simple to complex. Process is taught first and facts come later. The child using these materials experiences order, coordination, concentration, and independence.

The activities in the Math area are not to be implemented at a set pace. Providing the child with the materials at precisely the right challenge level will enable the child to demonstrate his development to the teacher through his progress. A child that is able to grasp such math concepts as addition and subtraction demonstrates the successful use of the math materials. The materials are so beautifully designed and appropriate for each child during his sensitive periods of learning math. Mathematical apparatus provides the necessary stimulation for the child to learn math concepts more readily.

The math activities are organized into five groups.

0-10 Lesson Plans

This group introduces sets of one through ten, which prepares the child for counting and teaches the value of quantity. Children begin to associate numeral and quantity with number rods and number cards. A child will gain a growing understanding of sequence.

- Number rods
- Sandpaper numbers
- Spindle boxes
- Memory game
- Short Bead Stair
- Other 1-10 additional counting activities the teacher adds which reinforces the one through ten numeral concepts.

Decimal Lesson Plans

These lessons involve the decimal system using the golden bead material. The child will become familiar with the names of the decimal categories; units, tens, hundreds, and thousands. A concrete experience with each category is represented by the beads.

The quantity will be followed by symbol and association.

- Decimal Tray
- Building Tray
- Golden Bead Layout
- Fetching Game
- Exchange Tray

Linear Counting Lesson Plans

Quantity is presented using the teen and ten boards followed by symbol and association. The one-hundred board and bead chains develop number concepts and recognition of numbers one through one-hundred. The bead chains also introduce the child to skip counting; five, ten, fifteen, twenty, etc.

- Teen Board
- Ten Board
- 100 Board
- Short chains
- Long chains

Addition/Subtraction/Multiplication/Division

These operations are done using the golden bead material. Children work with each other and benefit from these exercises using the bank game. Progression then continues using operations with the stamp game.

- Addition with Red & Blue rods
- Addition Strip Board
- Static & Dynamic Addition with Golden Beads
- Multiplication Board
- Static & Dynamic Multiplication with Golden Beads
- Subtraction Strip Board
- Static & Dynamic Subtraction with Golden Beads
- Division Board
- Static & Dynamic Division with Golden Beads

Paths to Abstraction

From the beginning, the students are introduced to mathematical concepts in concrete form. The use of concrete materials to learn abstract concepts and operations is fundamental to the development of the mathematical mind in the Montessori classroom as the materials represent abstract ideas. The materials can be felt and manipulated so that the hand is always involved in the learning process.

This approach to math is logical, clear and extremely effective. It allows the students to internalize math skills by using concrete materials and progressing at their own pace toward abstract concepts. Students understand and develop a solid foundation in mathematics. Later, as they master the concrete they begin to move to the abstract, where the child begins to solve problems with paper and pencil while still working with the materials.

- The Stamp Game
- The Dot Game

As part of the Math curriculum, fractions are also introduced to the Kindergarten children.

Language Curriculum

The Montessori 3-6 classroom is a natural extension of the patterns of communication that have already been absorbed. Through every conversation, every book read aloud, every new word that is taught, the Montessori student is learning language, and thus, learning to read and emphasis is placed on the process of acquiring language. In the Montessori 3-6 Language curriculum, writing itself is seen as a direct preparation for reading.

The Montessori preschool classroom emphasizes spoken language as the foundation for all linguistic expression. Throughout the entire Montessori environment the child hears and uses precise vocabulary for all the activities. The child is encouraged to converse with peers and staff.

Reading is taught phonetically as the child is ready. The concrete materials, from the sandpaper letters to the beginning of sentence analysis, allow the child to take small, logical, sequential steps to independent, fluent reading. Language work leads into cultural subjects, extending the child's vocabulary and working with the child's fascination of her environment.

Oral Language

- Oral Language Exercises
- Enrichment of Vocabulary

Science Curriculum

The Montessori science curriculum seeks to cultivate children's natural curiosity and to allow them to discover the answers to their "why" questions. As with the other areas of the curriculum, science study concentrates on process, in this case, the scientific process of question, hypothesis, procedure, observation, data analysis and conclusion. The use of this process paves the way for children to think about something that is easily translatable outside the science arena. It teaches them to think before deciding, to use a logical method of discovery or testing and to use data to evaluate results and arrive at a thoughtful conclusion. Einstein said that science isn't the thing being studied but the way it is being studied. It is the process of discovering reliable information about what is probably true and what is probably not.

Along with process, however, the science curriculum aims to provide each child with a basic knowledge of: zoology, botany, matter, energy, earth science, astronomy, human development and personal health. Firsthand experience with the natural world and with scientific materials and apparatus is a guiding principle. As with other Montessori pursuits, observing and doing are methods of learning, and safety at all times is emphasized. As always, the children use the real scientific materials and learn the proper nomenclature for such things as animal classification, chemical processes, earth forces, botanical components and rock types.

Finally, the Montessori curriculum aims to fill a child with wonder at the complexity and grandeur of the universe, the simplicity of physical laws and the miracle of life in all of its forms. It encourages respect for the world that we have been given and an understanding of our place in the natural order of things. The ultimate goal is the development of an ecological view of life and a feeling of responsibility for the earth.

- Living/Non-living
- Plants & Animals
- Vertebrates & Invertebrates
- Animal classification

- Parts of Tree/leaf/Flower/Bird/Horse/Butterfly/Fish/Frog/Turtle
- Life cycles
 - Apple
 - Pumpkin
 - Turkey
 - Frog
- Magnetism
- Buoyancy
- Herbivore, Carnivore, Omnivore

Geography Curriculum

Through sensory experience and the use of imaginative stories, children in the Montessori 3-6 environment learn about their physical world. They can touch a sphere and compare the shape to the globe. They build landforms using play dough and fill water forms with water. Montessori puzzle maps are meant to be taken apart and put back together again as children develop an understanding of continents and oceans. These Montessori hands-on activities build long-term memory by physically engaging the hand.

Discoveries are made about the people who live on different continents. Montessori students learn about food, music, clothing, traditions, holidays, customs, housing, as well as the plants and animals of the region as they compare their lifestyles to others. They learn about the flags of the world and reverently carry them as they “walk the line” in the Montessori prepared environment. They learn to appreciate the wonder found in the similarities and differences found around the world.

- Land, Air & Water
- Globe
- World Map
- All continents
- United States of America
- Capitals
- Land/Water Forms

Art Curriculum

Our Primary Art Curriculum builds on the foundation provided in the Practical Life curriculum. Our students display a reasonable control of movement, fine motor skills and eye/hand coordination, having been encouraged to express themselves in artistic ways. Elementary Art instruction seeks to strike a balance between skill instruction and free exploration and to encourage a child's natural desire for self-expression. It also seeks to build a child's art vocabulary; awareness of artists and their techniques and knowledge of the various forms of art expression, from architecture to painting to sculpture to computer graphics.

Through artistic adventures children also become aware of and develop a respect for the contributions of the arts and artists to societies and cultures, past and present. They gain a lasting appreciation of art from the dual vantage points of participant and audience. They gain insight into the way that art is a non-verbal method of expressing opinions, perceptions, feeling and history. Finally, they begin to realize the connections between art and their daily lives in areas such as math, nature, cooking and sports. Inclusive Montessori encourages every child to "find and nourish the artist within him/herself".