



# *Curriculum Handbook*

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Montessori Family School  
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## Philosophy

Dr. Maria Montessori, 1870-1952, was one of the first educational theorists to design a philosophy of education, based on her close observation of children as they developed over time. She proposed the radical concept that children are not what we make them, but learn on their own, according to their own inner maturational promptings. Her theory, as it applied to intellectual and physical development, was similarly articulated by Jean Piaget, whose cognitive-developmental theory closely mirrored her own. In fact, some of Piaget's observations of young children were done in a Montessori classroom! But Montessori's understanding of the spiritual well-being of the child was uniquely her own:

"As the child's body must draw nourishment and oxygen from its external environment, in order to accomplish a great physiological work, the work of growth, so also the spirit must take from its environment the nourishment which it needs to develop according to its own 'laws of growth.' "

—Maria Montessori,

Dr. Montessori's Own Handbook, 1914

Because Montessori philosophy is so vast and covers every act and decision a teacher makes, it is best to describe the variety of aspects that operate in our classrooms on a daily basis which lay the foundation for authentic Montessori education.

**Sensitive periods**, a concept first described by a Dutch biologist, Hugo de Vries, are distinct amounts of time when children easily absorb information from the world around them. A sensitive period is a specific time frame involving the child's development of a specific ability. For example, consider the sensitive period for language acquisition. It is crucial for children to hear spoken language. If a child is not exposed to language during his or her sensitive period there is the danger that language skills may be seriously impaired. The sensitive period for learning phonemes, the sounds of the letters of our alphabet, is between three and five years.

If a child's environment is appropriately designed for his or her sensitive periods, a natural unfolding of physical, emotional, cognitive and spiritual development takes place. If a child "misses" an absorbent phase, the specific attribute or skill due to develop at that time may languish, and it becomes difficult, perhaps impossible, for the child to acquire it later. Absorbent learning is effortless, while learning after a sensitive period has passed can be hard work and requires a different kind of mental activity.

**Absorption** is the process by which children take in information and make it their own, with no external effort, much the way a sponge absorbs water. Their sensitive periods lead them to sit up, walk, and talk; they seem to acquire these skills easily. Their innate developmental time table urges them to

perfect these skills, and absorption is the manner in which they do so. They have the urge, they practice, and suddenly they are able to reach the next developmental milestone. This also happens as the child passes through the sensitive periods for reading and numbers. When the environment is properly prepared with attractive activities, the child feels suddenly drawn to these new tasks. It appears as if they spontaneously burst into reading and arithmetic, although everything experienced up to this point has prepared the way for the next moment of interest.

As the teacher **follows the child**, she/he seizes the exact moment to match the child to the right material. This is called **making the match**. The well-trained teacher knows the single moment to call to the child and introduce him or her to the perfect task. Maria Montessori refers to this ability as the **art of teaching**. When the teacher has **prepared the environment** to contain aspects of the world in microcosm, the perfect sequence of concrete materials is at hand to lead the child to the next step. The teacher uses every teachable moment available to **individualize the learning** for each child so the he/she can **learn at his/ her own pace**. Because of the power of observation, the teacher is able to seize these moments as they occur. As a result, children move towards independence and become increasingly self-reliant.

**Isolating the difficulty**, the Montessori teacher presents only one concept at a time, allowing the child to **internalize** it before moving on. Each new experience builds on the prior one; learning proceeds in a sequential manner, moving from the concrete to the abstract and from the known to the unknown, in an ever-widening and deepening understanding of the Montessori curriculum.

During the **uninterrupted work period** the children are permitted to explore the materials in depth, without being disturbed. *"Never interrupt a working child"* is one of the basic tenets of Montessori philosophy. So, no bells interrupt the children to separate the math period from the language period. This is based on respect for the child and for the choices the child makes in constructing her/his own learning. In this way their progress is directed from within and born of their own curiosity and their never-ending desire to know.

In the **mixed-age classroom** the children function like an extended family. They help and inspire each other. As the little ones observe the older children, they silently think, "Oh, I will do that when I am big." This **modeling of behavior** is inspirational to the younger child and builds self-esteem in the older students. In this way, the classroom remains **child-centered**, for the children encourage each other to learn by their own activity, not through any urging on the part of the teacher. Rather, the younger ones say, "When can I do that?" and "Please show me how to do this!"

In the elementary years a foundation of the basic skills is established, as well as a lifelong love of learning. By **striking the child's imagination** and allowing him/her to learn in an enriched educational

environment, the fire of learning is lit. Armed with skill, natural curiosity, and a love for others, the Montessori child goes forth **prepared for life**.

## The Montessori Family School Curriculum

This handbook is designed to be an introduction to the different curricular areas in the preschool, the kindergarten/transition class and the elementary programs.

The curriculum developed by MFS is based on the subject areas and methods of teaching formulated by Dr. Montessori. This curriculum provides children with "hands-on," concrete learning materials designed by Dr. Montessori herself. Each of our Montessori-trained teachers has studied both the philosophy and the curriculum presentations which are essential to becoming an accomplished Montessori instructor. In addition to being well-trained in the Montessori curriculum, our teachers are familiar with the California state educational framework and the national school standards. We are pleased that we can provide your children with such a unique curriculum, which will prepare them for the challenges — moral, social and intellectual — that lie ahead. It is a pleasure to have the Montessori philosophy, methods, and materials at hand, which allow us to "teach to" the individual learning styles of your children.

The **Practical Life** room in our preschool is usually the first place that the youngest children choose to explore and enjoy when they enter their new Montessori environment. The attractive activities are designed to enhance the young child's concentration, developing independence, coordination and sense of order. In this area the children explore through the use of different media like water, paint, arts and crafts. They also learn skills for taking care of themselves, using materials such as the "dressing frames," and skills for taking care of the environment, such as sweeping, washing, and dusting. All of these exercises also support their developing hand/eye coordination. These activities are designed and sequenced so the children have fun and are successful. As the children become more proficient, the tasks become more challenging. They gain competence as well as self-confidence, learning how to care for both themselves and their environment. In the elementary class the children become responsible for the physical environment and take care of their classrooms and the materials by themselves.

The **Sensorial Materials** were designed to help children become aware of the relationships between things. When the children interact with these materials their senses are drawn to the subtle differences of weight, height, temperature, sound, shape, and color. As the children are encouraged to notice these differences, they become more aware of their world. The sensorial materials are also the basis for the math and geometry curriculum; the children revisit these materials at the elementary levels and refine their understanding as they progress through the curriculum. For instance, the Constructive Triangles that the students explore in preschool reappear in the elementary classroom, where the

students study basic geometric principles. The Binomial Cube, whose eight pieces the preschoolers work with, is used again by the older students to understand algebraic formulas. When they reach upper elementary, the students explore the Pythagorean Theorem and the area and volume formulas with the very same materials they used in an entirely different way when they were younger.

The **Montessori Math** materials are the most well-known. (In fact, they have been so successful, they have been adapted and used in many non-Montessori classrooms.) The math materials are concrete manipulatives which were developed to enable children to master the basics of numeration and arithmetic, as well as to give them an early introduction to higher mathematics. Through the manipulation of materials like the "golden beads" and the "stamp game," the children learn the algorithms of addition, subtraction, multiplication, and division. After they have worked with these operations concretely in the lower levels and have mastered their facts, they are able to begin the study of mathematics. The students explore fractions, decimals, percents, different bases, ratios, proportions, probability, problem-solving, graphing, patterns and logic, algebra, geometry, and beginning trigonometry with the materials designed for these activities. The Montessori math curriculum, which begins in preschool and continues through elementary, includes skills that go far beyond those listed in the state and national math standards. Not only do children master the basics, which are essential in elementary school, but they learn to think mathematically. They begin to understand and utilize the language of mathematics and become comfortable, and indeed proficient, with this information.

The **Montessori Language** materials allow many young children to read and write at an early age. The "Movable Alphabet" is designed so that children can compose their own stories before they are able to do the physical writing. This permits them to express their own ideas. Encouraged to write down their creative ideas and stories, they naturally move into early reading. Our preschool classrooms utilize the phonetic approach, the whole language approach, and the linguistic approach to learning to read. The younger children learn the sound of the letter, the shape their mouth makes when they form the sound, and the way the letter looks when it is written. Before long the young children put all of this information together and an "explosion" into reading and writing results. All children have the ability to learn to read and write, although this skill develops at different times for different individuals. But armed with the background of tactile, visual, and auditory experiences, Montessori children seem to acquire their skill overnight, much to their delight. When asked about when they learned these skills, children have been known to respond, "I just didn't know I could do it before!"

As the students get older they begin the study of literature and continue with their creative writing. The older children have literary seminars as they meet to discuss novels that they read. In school as well as out, they write regularly and learn the basics of grammar, and how to apply this knowledge to their written work. They write poetry, stories, essays, book reports, and memoirs. At the end of their "senior year" their writing is collected into a bound and illustrated anthology, with a cover of their own

design. As they look back, they are both proud and amazed at what they have accomplished in such a short time.

**Research** is a component of our curriculum, which begins at the earliest levels, as soon as students start asking questions relating to things they are curious about. When children express those interests the teachers suggest that they "investigate" to find answers. At first the teacher collects and provides sources to help answer the child's questions. As the children become fluent readers, they are able to look for answers on their own. Research continues in all subjects, throughout the students' elementary years. In addition, starting in their third year and continuing through their fifth year, students spend several weeks each year learning about the essentials of research papers, and then producing and presenting their finished products. The high point of research work comes when the "seniors" (sixth graders) devote a half-year to a large project in which they learn the in-depth skills of choosing a topic, finding sources, pulling out main ideas, taking notes, organizing their thoughts and putting them into an extensive report, and presenting the report to the group.

The **Cultural Subjects** are often referred to as "Cosmic Education" by the Montessori community. They comprise the framework into which fit the subjects other than Language and Math. Taken as a whole, they represent the concept that all people have the same basic needs. These needs are studied by the children as they learn about the universe in which they live. Our students begin their exploration of pre-history with the big picture as they study the solar system in which their planet is located. Then they study Earth — the layers of the earth and the plants and animals which live on the surface of the earth and in its atmosphere. During the elementary years the children go on to explore Earth's geology and geography — both physical and political. They make a more in-depth study of botany and zoology — exploring the development of life on Earth and the vast variety of animal species, from invertebrates to vertebrates. In the upper elementary program Chemistry, Biology, Physics, and Astronomy appear as subjects of study, as does History. The three-year history curriculum begins with the study of early humans and ancient civilizations, followed by the study of the middle ages, expansion westward, modern history and government, the history of California, and space exploration. The sequence is chronologically presented and designed to strike the imagination of the growing child. We work to show the students the whole range of natural and human events and to nurture an awareness of how these events impact our lives today. The students study current events as well as the past, and when they are ready to graduate, our "seniors" are well-educated, independent, and self-reliant citizens of their world.

There are several other areas of our curriculum that are essential to the education of well-rounded individuals. One of these areas is **Movement and Physical Education**. In the preschool we have movement teachers who provide expressive motor activities for the children. These activities are so much fun that teachers continue to do them with their students throughout the year. The classroom

teachers have also learned group songs, finger plays and dances from around the world, which they enjoy with their students on a regular basis. For the elementary students, our **Physical Education Program** emphasizes participation, cooperation and skill-building, supporting the children's natural enthusiasm for being active. All the teachers are aware that physical fitness and the ability to feel at ease in one's body is a necessary component of physical, mental and emotional health.

The movement and music in preschool is expanded at the elementary level into the **Music and Drama Programs**. The students "make music" with the Orff instruments and share the joy of creating beautiful music as a cohesive unit. They learn folk dances from around the world and experience the pleasure of dancing together. Both our music and drama teachers enhance their programs by bringing their professional experience into the classroom.

Our **Art Program** begins in preschool with an early exposure to the Montessori color tablets, expanding as the children explore art with different media in the practical life room. Our elementary art teacher brings her professional artistic expertise into the classroom, encouraging the children to express themselves in both two- and three-dimensional work, and in a variety of scales. There is a balance in the focus on the process of "doing art" and on the product of the artwork itself. One of the high points of the year is an exhibition of the children's art. The students hang the work for their show and have a grand art "opening." Parents and teachers share in the art show excitement as they view their children's marvelous creations.

Our **foreign language** is **Spanish**, taught by a native Spanish speaker. Instruction begins at the lower elementary level, where the children are introduced to the language through songs, stories, conversations and poems. The study of grammar, literature, and Spanish culture is added as the students progress, with an emphasis on writing as well as speaking.

Because **social development** is a key component of one's education and experience on a daily basis, the teachers are well-trained in teaching conflict resolution — helping the children resolve conflicts in a peaceful manner. In preschool each child is encouraged to "use your words" to clearly express how he/she feels about a situation. Empathy for another's point of view is encouraged. When a child has behaved in an inappropriate manner, he/she is asked to sit apart from the group for a short time. The child is helped to understand the impact of his/her behavior and encouraged to think of a different, more positive way of behaving. This gives the child the time to cool off and reflect for a few moments. When the child feels ready to rejoin the group, he/she is invited back by the teacher. This type of "time out" is not used to make the child feel like an outcast or "bad," but to give him/her time to calm down, reflect, and — when ready — rejoin the group and return to work and play.

At the elementary level the classes use positive **Conflict Resolution** techniques, some of which are based on the "Positive Discipline" work of Jane Nelsen and Stephen Glenn. Any problem that arises — either one between two children (if they cannot solve it between themselves) or one impacting the class — is aired, discussed and solved by the whole group at weekly class meetings. During the week prior to the meeting children may make a note in a special journal about an issue they wish to place on the agenda. At the meeting each child who has written about an issue is given a chance to describe the problem; everyone who has something to say about it is called upon to express their ideas. After that, the focus switches to brainstorming a solution to the problem; the whole group works on coming up with ideas for an appropriate resolution. As a result of consistent use of these techniques, the children become very effective at giving and getting "I-messages" and constructive feedback and at dealing with issues as they arise. This peaceful solution to dealing with conflict is a powerful strategy that will serve the children throughout their lives.

On the elementary level, we have a special '**Senior Buddy**' **Program** for our sixth grade "seniors" and our entering first graders. Every Friday the senior buddies go to the lower elementary classrooms and help their little buddies with their work. A unique friendship develops over the school year, with both organized and informal "get togethers" of the buddies. At Graduation, the little buddies present their senior buddy with flowers, signifying the blossoming of their special relationships.

We offer a **Before and Afterschool Program** at the preschool site for children who come to school before 9 a.m. or who stay between 3 and 6 p.m. This program is staffed by Montessori-trained teachers who have designed a developmentally appropriate program for children who are at school longer hours. The emphasis is on social skill building through games, dramatic play, arts and crafts, and cooking in a nurturing environment. The program is available to all preschool/kindergarten/transition students on a regular or an "as needed" basis. Before school care is available for elementary students Monday through Friday from 8 a.m. to 9 a.m.

We also offer an **Afterschool Program** for the elementary students. This is a recreational program with sports, games, arts and crafts, and cooking. It is available to all students on a regular or a drop-in basis. Parents can sign up by the year if they know their children will be in Afterschool every day, or they can make arrangements on an "as-needed" basis. Special **Afterschool Classes** are also offered during the afterschool hours. Parents can sign their children up for these classes separately. Each year we offer Art, Chess and Science, with Ice Skating added in the winter. Other classes we have offered are Kid Power, Drama, and French.

Because our school is a family, we have **Community Events** that bring us all together. The fall **Harvest Fair** includes games and booths created by the older children, who seem to know exactly what the younger children will like. For the **Thanksgiving Feast** the children, with the help of a few parents,

prepare and serve lunch for each other; since this is also **Grandparents' Visiting Day**, those special guests enjoy the meal with us. Before Winter Break, the school comes together to celebrate the season's many different holidays in song and dance, at our **Holiday Sing**. Spring brings the annual **Spaghetti Feast**; a book sale and a silent auction add to the fun of the evening. To finish out the year, the entire elementary school goes on a three-day camping trip to **Camp Cazadero** in Sonoma County. The children look forward with excitement to "Camp Caz"; their experiences there become ones they will always cherish.

Our **methods for assessing student achievement** — and then for reporting it — are varied, with the most significant method being observation and record keeping. Our Montessori teachers are trained in these techniques, which allows them to guide the student's educational growth by offering the appropriate material or work for the next step in learning. Other methods for assessing and recording progress include student portfolios, which contain examples of classroom work, anecdotal records, and teacher narratives. In addition, teachers meet twice yearly for conferences with each child's parents regarding intellectual, social, emotional, physical and general well-being.

We are united with other members of the East Bay Independent School Association (EBISA) in the belief that performance on standardized tests should not be used as the primary gauge in assessing student achievement, nor should student performance on these tests be used as the sole criteria in admissions decisions. However, students may need to take a standardized test for admission to middle school. Therefore, we do administer standardized tests to students in third through sixth grades. It is our belief that children benefit from this test-taking experience, even though we do not rely on test results as an assessment tool for our own students.

Our goal is to educate your children for the future, not just the present, nor the past. Their work is different from ours, and it is our responsibility to prepare them for it. As they move through our Montessori curriculum, they also have the opportunity to learn how to take care of both their indoor and outdoor environment. In all of our classes we provide problem-solving and conflict resolution experiences for the children so they will be equipped to deal with a variety of issues in a peaceful and thoughtful manner. We are excited that we can participate with you in preparing your children for the intriguing challenges that lie ahead for them.