“Montessori 101”

Adapted from AMSHQ.org
(The American Montessori Society’s website)
# Table of Contents

- **Introduction to Montessori** ................................................................. 3
- **Hallmarks of Montessori** .................................................................... 3
- **Benefits of Montessori** ....................................................................... 4
- **Montessori Classrooms** ..................................................................... 5
  - **Classroom Design** ........................................................................... 6
  - **Montessori Learning Materials** ....................................................... 6
  - **The Teacher as “Guide”** ................................................................. 7
  - **A Caring Community** ...................................................................... 8
- **Montessori Learning Materials** .......................................................... 8
  - **Montessori Materials Are Appealingly Designed** ............................ 8
  - **Ingenious** ....................................................................................... 9
  - **Invite Activity** ................................................................................ 10
  - **“Grow” with the Child** .................................................................... 11
  - **Invite Discovery** ............................................................................. 11
- **Montessori Teachers** .......................................................................... 12
  - **Mentor, Model, Guide** ................................................................. 13
- **Maria Montessori** ............................................................................. 14
  - **Breaking Barriers** .......................................................................... 14
  - **Birth of a Movement** ................................................................. 15
  - **Innovator, Feminist, Idealist** ....................................................... 15
- **Brief History of Montessori Education** ............................................. 16
The Montessori Method of education, developed by Dr. Maria Montessori, is a child-centered educational approach based on scientific observations of children from birth to adulthood. Dr. Montessori’s Method has been time tested, with over 100 years of success in diverse cultures throughout the world. It is a view of the child as one who is naturally eager for knowledge and capable of initiating learning in a supportive, thoughtfully prepared learning environment. It is an approach that values the human spirit and the development of the whole child—physical, social, emotional, cognitive.

**Hallmarks of Montessori**

**What components are necessary for a program to be considered authentically Montessori?**

- Multiage groupings that foster peer learning.
- Uninterrupted blocks of work time
- Guided choice of work activity
- A full complement of specially designed Montessori learning materials, meticulously arranged and available for use in an aesthetically pleasing environment.

**How do the teacher, child, and environment create a learning triangle?**

- The classroom is prepared by the teacher to encourage independence, freedom within limits, and a sense of order.
- The child, through individual choice, makes use of what the environment offers to develop himself, interacting with the teacher when support and/or guidance is needed.

**Why are multiage groupings a hallmark of the Montessori Method?**

- Younger children learn from older children.
- Older children reinforce their learning by teaching concepts they have already mastered.
- This arrangement also mirrors the real world, where individuals work and socialize with people of all ages and dispositions.
Dr. Montessori observed that children experience sensitive periods, or windows of opportunity, as they grow. As their students develop, Montessori teachers match appropriate lessons and materials to these sensitive periods when learning is most naturally absorbed and internalized.

**Explain how this works in early childhood and the elementary years.**

🧬 In early childhood, Montessori students learn through sensory-motor activities, working with materials that develop their cognitive powers through direct experience: seeing, hearing, tasting, smelling, touching, and movement.

🧬 In the elementary years, the child continues to organize his thinking through work with the Montessori learning materials and an interdisciplinary curriculum as he passes from the concrete to the abstract. He begins the application of his knowledge to real-world experiences. This organization of information—facts and figures—prepares the child for the world of adolescence, when thought and emotion evolve into understanding more abstract, universal concepts such as equity, freedom, and justice.

**Benefits of Montessori**

What are the benefits of a Montessori education?

Montessori education offers our children opportunities to develop their potential as they step out into the world as engaged, competent, responsible, and respectful citizens with an understanding and appreciation that learning is for life.

🧬 Each child is valued as a unique individual. Montessori education recognizes that children learn in different ways, and accommodates all learning styles. Students are also free to learn at their own pace, each advancing through the curriculum as he is ready, guided by the teacher and an individualized learning plan.

🧬 Beginning at an early age, Montessori students develop order, coordination, concentration, and independence. Classroom design, materials, and daily routines support the individual’s emerging “self-regulation” (ability to educate one’s self, and to think about what one is learning), toddlers through adolescents.
Students are part of a close, caring community. The multi-age classroom—typically spanning 3 years—re-creates a family structure. Older students enjoy stature as mentors and role models; younger children feel supported and gain confidence about the challenges ahead. Teachers model respect, loving kindness, and a belief in peaceful conflict resolution.

Montessori students enjoy freedom within limits. Working within parameters set by their teachers, students are active participants in deciding what their focus of learning will be. Montessorians understand that internal satisfaction drives the child’s curiosity and interest and results in joyous learning that is sustainable over a lifetime.

Students are supported in becoming active seekers of knowledge. Teachers provide environments where students have the freedom and the tools to pursue answers to their own questions.

Self-correction and self-assessment are an integral part of the Montessori classroom approach. As they mature, students learn to look critically at their work, and become adept at recognizing, correcting, and learning from their errors. Given the freedom and support to question, to probe deeply, and to make connections, Montessori students become confident, enthusiastic, self-directed learners. They are able to think critically, work collaboratively, and act boldly—a skill set for the 21st century.

Montessori Classrooms
To grasp the essence of Montessori education, just step inside a classroom.

What does the Montessori Classroom look like?

Beautiful, inviting, and thoughtfully arranged, the room embodies each element of Maria Montessori’s revolutionary approach.

Natural lighting, soft colors, and uncluttered spaces set the stage for activity that is focused and calm. Learning materials are displayed on accessible shelves, fostering independence as students go about their work. Everything is where it is supposed to be, conveying a sense of harmony and order that both comforts and inspires.
In this safe and empowering environment, students find joy in learning.

**Classroom Design**

**How is the Montessori classroom designed?**

- The design and flow of the Montessori classroom create a learning environment that accommodates choice.
- There are spaces suited to group activity, and areas where a student can settle in alone. Parts of the room are open and spacious, allowing a preschooer to lay out strands of beads for counting, or an elementary student to ponder a 10-foot-long Timeline of Life.
- You won’t find the customary rows of school desks; children work at tables or on the floor, rolling out mats on which to work and define their work space.
- Nor are you likely to find walls papered with brightly colored images of cartoons and syndicated characters. Rather, you might see posters from a local museum, or framed photographs or paintings created by the students themselves.
- There are well-defined spaces for each part of the curriculum, such as Language Arts, Math, and Culture. Each of these areas features shelves or display tables with a variety of inviting materials from which students can choose.
- Many classrooms have an area devoted to peace and reflection: a quiet corner or table with well-chosen items—a vase of daisies; a goldfish bowl—to lead a child to meditative thought.
- And always there are places to curl up with books, where a student can read or be read to.
- Each classroom is uniquely suited to the needs of its students. Preschool rooms feature low sinks, chairs, and tables; a reading corner with a small couch (or comfy floor cushions); reachable shelves; and child-sized kitchen tools—elements that allow independence and help develop small motor skills. In upper-level classrooms you’re likely to see large tables for group work, computers, interactive whiteboards, and areas for science labs.
- Above all, each classroom is warm, well-organized, and inviting, with couches, rugs, and flowers to help children and youth feel calm and at home.

**Montessori Learning Materials**

A hallmark of Montessori education is its hands-on approach to learning. Students work with
specially designed materials, manipulating and investigating until they master the lesson inside.

**What are some features of Montessori Learning Materials?**

- Beautifully crafted and begging to be touched, Montessori’s distinctive learning materials are displayed on open, easily accessible shelves. They are arranged (left to right, as we read in Western languages) in order of their sequence in the curriculum, from the simplest to the most complex.

- Each material teaches a single skill or concept at a time—for example, the various “dressing frames” help toddlers learn to button, zip, and tie; 3-dimensional grammar symbols help elementary students analyze sentence structure and style. And, built into many of the materials is a mechanism (“control of error”) for providing the student with some way of assessing her progress and correcting her mistakes, independent of the teacher.

- The concrete materials provide passages to abstraction, and introduce concepts that become increasingly complex. As students progress, the teacher replaces some materials with others, ensuring that the level of challenge continues to meets their needs.

**The Teacher as “Guide”**

**What is meant by the Montessori Teacher as a “Guide”?**

- The Montessori teacher, child, and environment may be seen as a learning triangle, with each element inextricably linked, and a vital part of the whole. The teacher thoughtfully prepares a classroom environment with materials and activities that entice her students to learn. She may guide her students to new lessons and challenges, but it is the child’s interaction with what the environment has to offer that enables learning to occur.

- Because the teacher isn’t meant as the focus of attention, he can often be difficult to spot. Typically you’ll find him sitting on the floor or at a table, observing his students as they work and making notations about their progress, or consulting with an individual or a small group.
A Caring Community

In what way does the Montessori classroom radiate harmony and respect?

Members address each other respectfully and in modulated tones. There are no raised voices; no rude or hurtful behavior. There is a busy hum of activity, yet also a profound respect for silence.

Students show grace and courtesy, and an interest in the welfare of others. “Let me help!” is a common classroom refrain.

Students work together as stewards of their environment. They take turns caring for classroom pets and plants; do their part to maintain order, such as by returning materials to the shelves after use; and help keep outdoor spaces groomed and litter-free.

How to live in community, to learn independently, to think constructively and creatively: These are the lessons of the Montessori classroom that remain with its students as they make their way in the world.

Montessori Learning Materials

You might see a 4-year-old boy forming words using 3-dimensional letters called “the movable alphabet.” A 2½ -year-old may be sitting by a teacher, ever-so-carefully pouring water from 1 tiny pitcher to another. Several children kneeling on the floor may be intently struggling over a puzzle map of South America.

Montessori Materials Are Appealingly Designed

Throughout the room, children will be sorting, stacking, and manipulating all sorts of beautiful objects made of a range of materials and textures. Many of these objects will be made of smooth polished wood. Others are made of enameled metal, wicker, and fabric. Also available to explore are items from nature, such as seashells and birds' nests.
How can a preschool-aged child be trusted to handle fragile little items independently?

Montessori teachers believe that children learn from their mistakes. If nothing ever breaks, children have no reason to learn carefulness. Children treasure their learning materials and enjoy learning to take care of them “all by myself.”

Montessori teachers make a point to handle Montessori materials slowly, respectfully, and carefully, as if they were made of gold. The children naturally sense something magical about these beautiful learning objects.

As children carry their learning materials carefully with 2 hands and do their very special “work” with them, they may feel like they are simply playing games with their friends—but they are actually learning in a brilliantly designed curriculum that takes them, 1 step at a time, and according to a predetermined sequence, through concepts of increasing complexity.

Ingenious

Give an example of how a learning material teaches just 1 skill or concept at a time.

We know that young children need to learn how to button buttons and tie bows. Dr. Montessori designed “dressing frames” for children to practice on. The frame removes all distractions and simplifies the child’s task. The child sees a simple wooden frame with 2 flaps of fabric—1 with 5 buttonholes and 1 with 5 large buttons. His task is obvious. If he makes an error, his error is obvious.

What does the built-in “control of error” in many of the Montessori materials allow the child to do?

The child can determine if he has done the exercise correctly. A teacher never has to correct his work. He can try again, ask another child for help, or go to a teacher for suggestions if the work doesn’t look quite right.

Give examples of how materials contain multiple levels of challenge and can be used repeatedly at different developmental levels. A special set of 10 blocks of graduated sizes called “the pink tower” may be used just for stacking; combined with “the brown stair” for comparison; or used with construction paper to trace, cut, and make a paper design. The pink tower,
and many other Montessori materials, can also be used by older children to study perspective and measurement.

Give an example of how Montessori materials use real objects and actions to translate abstract ideas into concrete form.

The decimal system is basic to understanding math. Montessori materials represent the decimal system through enticing, pearl-sized golden beads. Loose golden beads represent ones. Little wire rods hold sets of 10 golden beads—the 10-bar. Sets of 10 rods are wired together to make flats of 100 golden beads—the hundred square. Sets of 10 flats are wired together to make cubes of 1,000 golden beads—the thousand cube.

Children have many activities exploring the workings of these quantities. They build a solid inner physical understanding of the decimal system that will stay with them throughout school and life.

Later, because materials contain multiple levels of challenge, the beads can be used to introduce geometry. The unit is a point; the 10-bar is a line; the hundred square a surface; the thousand cube, a solid.

Montessori learning materials are ingeniously designed to allow children to work independently with very little introduction or help. The students are empowered to come into the environment, choose their own work, use it appropriately, and put it away without help.

Invite Activity

Maria Montessori believed that moving and learning were inseparable. The child must involve her entire body and use all her senses in the process of learning. She needs opportunities built into the learning process for looking, listening, smelling, touching, tasting, and moving her body.

Give an example of how when you look at Montessori materials, you are drawn to explore them with your senses.

You would want to pick up the sound cylinders and shake them. They consist of 2 matched sets of wooden cylinders containing varying substances that create different sounds when shaken.
The child sorts the sound cylinders using only his listening skill. Two cylinders have the barely audible sound of sand. Two have the slightly louder sound of rice inside them. Others contain beans or items that sound louder still. After matching the cylinders, the child can grade the cylinders—that is, put the cylinders in order of softest to loudest, or loudest to softest.

**“Grow” with the Child**

Montessori materials are designed to follow the students throughout their education; they are like familiar faces greeting them in their new classrooms as they advance. Give an example of this.

An example of this exploring the “binomial cube”—made up of 8 red, black, and blue cubes and prisms—the early childhood student develops visual discrimination of color and form. The elementary child labels the parts to explore, concretely, the algebraic formula $(a+b)^3$. The upper elementary child uses the binomial cube as the foundation for work with more advanced materials to solve algebraic equations.

**Invite Discovery**

In what way do Montessori materials invite discovery?

Montessori-structured lessons are the “work” or procedures for each set of materials. A teacher may give a lesson to a child or small group of children, another child may give a lesson, a child may learn how a lesson works by watching others, or a child may explore certain types of materials freely. For a young child, the Montessori-structured lesson may be silent and may be only a few moments long. This lesson models a method for laying work on a mat or table in an orderly fashion. The lesson helps children develop work habits, organization skills, and general thinking strategy, but it never teaches children the answers. Teaching children the answers steals their chance to make exciting discoveries on their own—whether the child is a baby wondering “Can I reach that rattle?,” a preschooler contemplating “Why did this tower of cubes fall
down?,” an elementary school student pondering “When you divide fractions, why do you invert and multiply?” or a high school student puzzling “How does city council operate?”

For students of every age, the Montessori environment offers the tools to discover the answers to their own questions. The teacher is their trusted ally and the learning materials are their tools for discovery, growth, and development. The teacher stays with the students for the entire span of their multi-age grouping, usually 2 or 3 years, nurturing each child’s development over that extended span of time.

Elementary and high school materials build on the earlier Montessori materials foundation. Because older students have built a solid foundation from their concrete learning, they move gracefully into abstract thinking, which transforms their learning. Now they learn how to carry out research. At these upper levels, students broaden their focus to include the community and beyond. They learn through service and firsthand experience. The Montessori materials support responsible interactive learning and discovery.

Montessori Teachers

Describe a typical Montessori teacher.

шение It’s often hard to spot the teacher in a Montessori classroom. She may be sitting with a preschooler next to a floor mat, arranging colored rectangles from darkest to lightest, or intently observing as a handful of elementary students dissect a leaf.

шение She won’t be presenting information for rote learning. Rather, she’ll be demonstrating specially designed learning materials that serve as a springboard for investigation and discovery. At the heart of the Montessori Method is the concept that mastery is best achieved through exploration, imitation, repetition, and trial and error.

шение The teacher thoughtfully prepares a classroom environment with materials and activities that meet his students’ unique interests, academic level, and developmental needs. These he introduces to each child sequentially, laying the foundation for independent learning.

шение Always, the teacher is aware of each student’s progress as she works toward mastering the particular concept or skill. He knows when to step in to offer special guidance, and when to challenge a student with the next step in a learning sequence.
Describe the three key characteristics of a Montessori teacher:

- **Skilled Observer:** Through careful observation, the Montessori teacher comes to know each student’s interests, learning style, and temperament. He understands the student’s developmental needs, and is receptive to her “sensitive periods,” when she is most ready to learn a new concept or skill. With this information the teacher chooses materials and lessons that will capture the student’s attention and entice her to learn. When he observes that the student has mastered a concept or skill, he introduces new lessons that become increasingly complex and abstract.

- **Creative Facilitator:** The teacher serves as a resource as students go about their work. She offers encouragement, shares their triumphs, and steers them to greater understanding. She helps them advance through the curriculum as they master new skills, so they are continually challenged and eager to learn. As students progress, the teacher modifies the classroom environment, adjusting the learning materials to meet the students’ changing needs.

- **Character Builder:** A Montessori class is a close-knit community, fertile ground for nurturing the qualities that help children and youth become citizens of the world and stewards of the planet. By his own behavior and attitudes, the teacher models values such as empathy, compassion, and acceptance of individual differences. He encourages the students to be courteous and kind. And he brings students together in collaborative activities to foster teamwork, responsibility, self-discipline, and respect.
Maria Montessori

Maria Montessori was an Italian physician, educator, and innovator, acclaimed for her educational method that builds on the way children naturally learn.

She opened the first Montessori school—the Casa dei Bambini, or Children's House—in Rome on January 6, 1907. Subsequently, she traveled the world and wrote extensively about her approach to education, attracting many devotees. There are now more than 22,000 Montessori schools in at least 110 countries worldwide.

Maria Montessori was born on August 31, 1870, in the provincial town of Chiaravalle, Italy. Her father was a financial manager for a state-run industry. Her mother was raised in a family that prized education. She was well-schooled and an avid reader—unusual for Italian women of that time. The same thirst for knowledge took root in young Maria, and she immersed herself in many fields of study before creating the educational method that bears her name.

Beginning in her early childhood years, Maria grew up in Rome, a paradise of libraries, museums, and fine schools.

**Breaking Barriers**

Maria was a sterling student, confident, ambitious, and unwilling to be limited by traditional expectations for women. At age 13 she entered an all-boys technical institute to prepare for a career in engineering.

In time, however, she changed her mind, deciding to become a doctor instead. She applied to the University of Rome's medical program, but was rejected. Maria took additional courses to better prepare her for entrance to the medical school and persevered. With great effort she gained admittance, opening the door a bit wider for future women in the field.

When she graduated from medical school in 1896, she was among Italy's first female physicians.
Birth of a Movement

Maria's early medical practice focused on psychiatry. She also developed an interest in education, attending classes on pedagogy and immersing herself in educational theory. Her studies led her to observe, and call into question, the prevailing methods of teaching children with intellectual and developmental disabilities.

The opportunity to improve on these methods came in 1900, when she was appointed co-director of a new training institute for special education teachers. Maria approached the task scientifically, carefully observing and experimenting to learn which teaching methods worked best. Many of the children made unexpected gains, and the program was proclaimed a success.

In 1907 Maria accepted a new challenge to open a childcare center in a poor inner-city district. This became the first Casa dei Bambini, a quality learning environment for young children. The youngsters were unruly at first, but soon showed great interest in working with puzzles, learning to prepare meals, and manipulating materials that held lessons in math. She observed how they absorbed knowledge from their surroundings, essentially teaching themselves.

Utilizing scientific observation and experience gained from her earlier work with young children, Maria designed learning materials and a classroom environment that fostered the children's natural desire to learn. News of the school's success soon spread through Italy and by 1910 Montessori schools were acclaimed worldwide.

Innovator, Feminist, Idealist

In the years following, and for the rest of her life, Maria dedicated herself to advancing her child-centered approach to education. She lectured widely, wrote articles and books, and developed a program to prepare teachers in the Montessori Method. Through her efforts and the work of her followers, Montessori education was adopted worldwide.

As a public figure, Maria also campaigned vigorously on behalf of women's rights. She wrote and spoke frequently on the need for greater opportunities for women, and was recognized in Italy and beyond as a leading feminist voice.

Maria Montessori pursued her ideals in turbulent times. Living through war and political upheaval inspired her to add peace education to the Montessori
curriculum. But she could do little to avoid being ensnared in world events. Traveling in India in 1940 when hostilities between Italy and Great Britain broke out, she was forced to live in exile for the remainder of the war. There she took the opportunity to train teachers in her method.

At war’s end she returned to Europe, spending her final years in Amsterdam. She died peacefully, in a friend's garden, on May 6, 1952.

**Brief History of Montessori Education**

Montessori education dates back to 1907, when Maria Montessori opened the Casa dei Bambini, or Children’s House, in a low-income district of Rome. Her unique philosophy sparked the interest of educators worldwide, and in the following decades Montessori schools opened throughout Europe, in North and South America, and, finally, on every continent but Antarctica.

Countless books and articles about Montessori have been published in nearly every language. Dr. Montessori first described her approach in Il Metodo della Pedagogia Scientifica applicato all’educazione infantile nelle Case dei Bambini, published in 1909. The book’s English-language version, succinctly titled The Montessori Method, was a ringing success on both sides of the Atlantic.

In 1929 Dr. Montessori established the Association Montessori Internationale (AMI) to support the swell of Montessori schools, teacher education programs, and national organizations around the world.

In the United States, Montessori caught on quickly, propelled by prominent advocates and glowing media reports. But by the 1920s the movement had fizzled, and 40 years would go by before Montessori schools would return in substantial numbers.

The leader of the American revival was Nancy McCormick Rambusch, a vibrant, persuasive educator intent on bringing about change. In 1960 Dr. Rambusch launched the American Montessori Society, the first—and still the largest—of several modern-era organizations supporting Montessori in America.