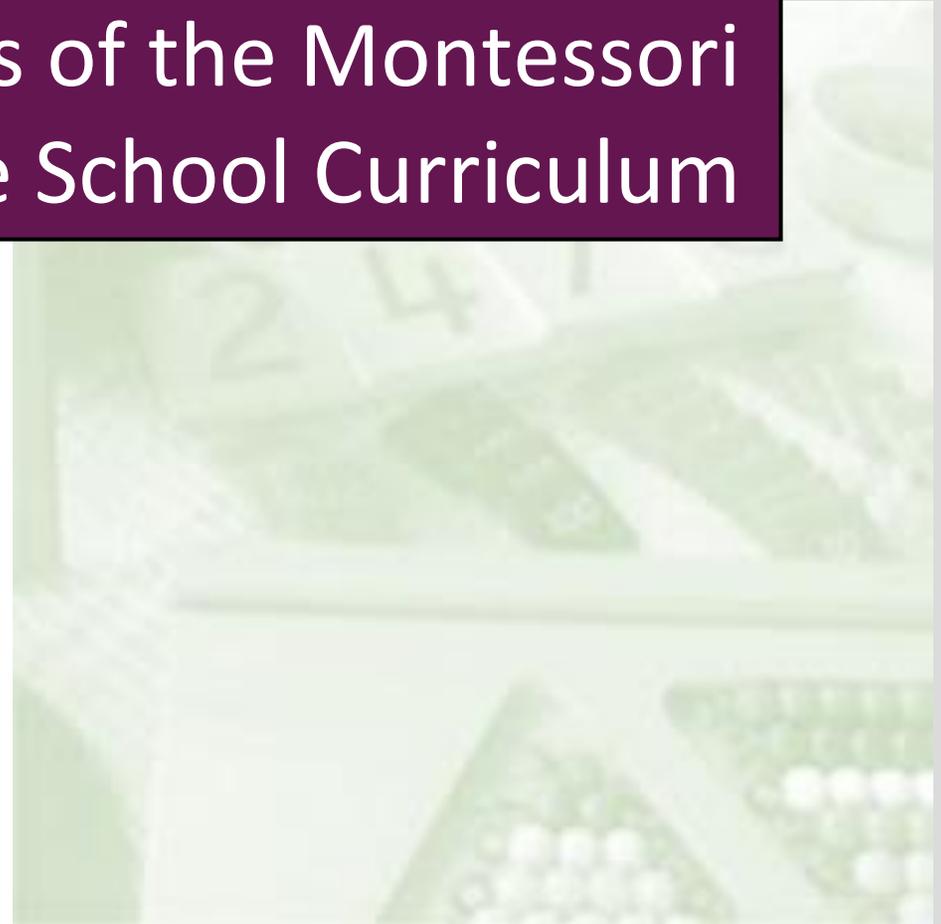




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Underlying Concepts of the Montessori Primary-Middle School Curriculum



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Montessori programs are organized in three multi-year learning cycles based on the planes of development outlined by Dr. Maria Montessori. Students engage in individualized, hands-on learning experiences. This holistic approach engages students' imagination, along with their inherent sense of wonder and natural love of learning, by presenting big ideas that encompass all traditional subject areas. Mindful of the interconnectedness of all human experience and understanding, students then explore more deeply each area of knowledge.

The Four Planes of Development (0-6; 6-12; 12-18; 18-24)

First Plane of Development (0-3; 3-6)

This is known as the period of the *absorbent mind* because, at this stage, children absorb knowledge quickly and effortlessly. Sensorial exploration is vital at this stage because learning occurs through the senses, so all experiences at this plane are hands-on. Social development occurs as responsibility, caring, and helping are developed. (In this document, unless otherwise specified, the "first plane" references will be about the 3-6 child of the Primary class.)

Second Plane of Development (6-9; 9-12)

At the beginning of this plane, both reasoning and the imagination grow as children begin to make sense of their world. Children at this stage are interested in morality and what their society defines as right and wrong. They enjoy the process of working with others and are exploring the wider society beyond their family/friends. They are much more interested in social interactions overall than they were in the first plane. The process of detaching from the home begins and the interest in morality continues. This is the age of socialization and collaboration, of developing the ability to voice one's own opinion and reflecting on the ideas of others. It is also the time of finding one's place, the beginning of a consideration of one's "cosmic task." Because student work is about exploration and application of knowledge, it is more concept-based and abstract. (See Maria Montessori, *To Educate the Human Potential*, chapter 1).

Third Plane of Development (12-15; 15-18)

In the third plane of development, individuals pass from childhood to adulthood. The physical transition of children at this stage is puberty; the psychological transition is “from the child who has to live in a family, to the [adult] who has to live in society (Maria Montessori, *From Childhood to Adolescence*, p. 60).” At the beginning of this stage, the multiple physical and emotional changes experienced by adolescents often make them vulnerable to self-doubt that can negatively affect their growth into well-adjusted social beings. Dr. Montessori envisioned a unique land-based environment for 15-18-year-olds, one that introduced them to economic independence and “[made them feel] capable of succeeding in life by [their] own efforts and on [their] own merits . . . (Maria Montessori, *From Childhood to Adolescence*, p.65).” Her belief was that providing opportunities for productive work and creative expression close to nature would offer meaningful experiences in social life, along with organic connections to studies in science and history, as young people “learn[ed about] civilization through its origin in agriculture (Maria Montessori, *From Childhood to Adolescence*, p.68).” There is also a significant focus on personal reflection and growth.

Fourth Plane of Development (18-21; 21-24)

The fourth and final plane of development parallels time spent in post-secondary studies, whether college or specialized schooling. This is a time when individuals, their inner needs having been met throughout their development, reach a maturity which enables them to participate thoughtfully and self-assuredly in society. These adults, through reflection on and consideration of their place in the world, are now prepared to move confidently in directions that are personally fulfilling--the individual “cosmic task.”

Sensitive Periods and the Absorbent Mind

Montessori observed during the first plane of development that children exhibited periods of tremendous sensitivity to specific learning. These sensitivities motivated them to high levels of concentration and repetition to meet an internal need for self-construction. The four sensitive periods are order (birth-4.5); movement (birth-4.5/5); development & refinement of sensory perceptions (birth-4.5); and language (birth-6). These sensitive periods disappear by the end of the first plane of development, along with the *absorbent mind* characteristic of the first plane child, the phrase coined by Montessori to describe the effortless learning of very young children: “The child has a type of mind that absorbs knowledge and constructs himself (Maria Montessori, *The Absorbent Mind*, p. 4).” There are sensitivities that children present after age 6; however, they are unlike the “fair fire of the soul, which burns without consuming (*The Secret of Childhood*, p.40),” as Dr. Montessori described the sensitive periods of the first plane child.

Human Tendencies

Dr. Montessori observed certain predispositions in human beings: orientation, order, exploration, communication, activity, manipulation, work, repetition, exactness, abstraction, and self-perfection. The work of the child is the construction of an individual oriented to his time, place, and culture. The Human Tendencies described above support this vital and individualized construction. Recognizing the tendencies within each child helps adults provide an aid to life in an environment designed for ideal, holistic growth.

The Fundamental Needs of Human Beings

Along with the Human Tendencies, Dr. Montessori spoke of physical and spiritual Fundamental Needs of Human Beings. Beyond basic physical needs (food, clothing, shelter, safety/defense, transportation), humans also have needs for the arts, personal aesthetics, love, and religion/spirituality. There are individual and societal/environmental aspects of each of these tendencies. Recognition of the universality of human needs helps the child appreciate the gifts of various cultures, both in history and in the world in which they live.

Movement as Vital for Optimal Development

The Human Tendencies to Activity, Repetition, Self-Perfection

"One of the greatest mistakes of our day is to think of movement by itself, as something apart from the higher functions.... Mental development must be connected with movement and be dependent on it. It is vital that educational theory and practice should become informed by this idea."

Maria Montessori, *The Absorbent Mind*, pp. 201, 203

Montessori classrooms are designed to promote purposeful movement. Students are free to move about the prepared environment as they select and complete appropriate lessons. Providing students this liberty within limits allows them to achieve independence, coordination, concentration, and internal order. All materials are designed for the student to manipulate with the hands. This level of movement is a critical component of the learning process during both the first and second planes of development. As Montessori states, "The hand is the instrument of the mind."

The goals of **Physical Education** classes in the Montessori curriculum are to provide students with the skills, knowledge, confidence, and attitudes necessary for a lifetime of good health and participation in physical activity. Emphasis is on traveling with control through movement education as well as affective development. Primary and Elementary students work on specific skills with throwing, catching, kicking, and batting; fitness; gymnastics and dance; and net/wall games and invasion games. Upper Elementary students also explore and execute basic offensive and defensive strategies for games; and learn to identify the five components of health-related physical fitness. Middle School students continue to develop physical literacy through increased competency in movement skills/patterns and strategies/tactics, cooperation, self-challenge, and growth in awareness of the benefits of physical activity.

Cosmic Education

“Since it has been ... necessary to give so much to the child, let us give him a vision of the whole universe. The universe is an imposing reality, and an answer to all questions... All things are part of the universe and are connected with each other to form one whole unity. The idea helps the mind of the child to become focused, to stop wandering in an aimless quest for knowledge. He is satisfied, having found the universal center of himself with all things.”

Maria Montessori, *To Educate the Human Potential*

Maria Montessori believed the purpose of education is to help the individual explore answers to three major questions: Where do I come from? Who am I? Why am I here? She believed education to be the way by which humans reach their full potential. This search for meaning in life serves as the basis and motivation for all learning. Learning is structured within this framework of humankind's place within the world and the universe at large. This cosmic education extends beyond acquiring knowledge to involve the development of the whole being comprehensively, holistically, and purposefully.

First Plane of Development

Cosmic education begins in the first plane of development (0-6). The goal for the child in this age range is to foster a respect for all life and develop a sense of gratitude. The young child is introduced to the values of friendship, honesty, caring, and love. In the Primary classroom (ages 3-6), lessons are presented that teach grace and courtesy. The children are taught to recognize and appreciate gifts that humans receive from plants and animals and the importance that all living things play in existence.

Second Plane of Development

In the second plane of development (6-12), "the role of education is to interest a child profoundly in an external activity to which he will give all his potential (Maria Montessori, *From Childhood to Adolescence*, p. 11)." The *Great Lessons* presented in the Montessori elementary classroom are cosmic fables that provide "big picture" introductions to all areas of study, demonstrate the interrelatedness of knowledge, and provide a framework for greater understanding. They are used to spark this interest in the child and to provide a context for the child's learning. They serve as a point of departure for study in all areas of the curriculum, which uses an integrated, holistic approach. Children develop an appreciation and understanding of the interdependence of all living and non-living things.

Third Plane of Development

The third plane of development (12-18) is a time of profound reflection. Adolescents are drawn to reading and discussing literature, examining scientific ideas and the mathematical contributions of others, and expressing themselves through athletics as well as multiple art forms, such as writing, music, drawing, painting, sculpture, dance, photography, and architecture.

Collectively, these experiences serve the question "Who am I?" by bolstering the confidence adolescents need to develop as they enter early adulthood. Dr. Montessori described this vital process of adolescents coming to see themselves as strong and worthy persons as the 'valorization of the personality.'" During the third plane, adolescents begin to think deeply about where they fit in the world/universe.

Education for Peace

"Preventing conflicts is the work of politicians; establishing peace is the work of education. "

Maria Montessori, *Education and Peace*, p. 2

The **Guidance program** in the Montessori curriculum focuses on social and emotional growth, peace education, multicultural understanding, academic development, and personal independence and choice, including career choices. It supports individualized, proactive/preventative intervention for children experiencing academic or social/emotional challenges. Emphasis is in three areas: Learning to Live (Personal/Social Development); Learning to Learn (Academic Development); and Learning to Work (Career Development).

Elementary students focus on character and peace education; understanding and respecting oneself and others; recognizing personal boundaries; communicating effectively; developing responsibility in the school and greater community; making good choices/decisions; and using safety and survival skills. They also explore how to be effective learners with good work habits and how to be mindful in their daily lives. In addition, students explore career interests and related occupations, the connection of school to work, and the importance of collaboration in group settings.

In addition, Middle School students are supported in their process of change and growth with responsive services, as well as through assistance with individual and academic planning to help them with making decisions, setting goals, understanding themselves and others, problem-solving and communication skills, and exploring career possibilities more specifically.

Dr. Montessori believed that education, properly understood, was the avenue for societal change. The dual focus in Montessori education on a global perspective (Fundamental Needs of Human Beings, cultural studies time lines) and respect for self, others, and the environment (Grace and Courtesy, Practical Life exercises) is the foundation from which daily actions of peace and a commitment to a life of peace can grow.

Removing Obstacles from the Path of the Child's Development

Support Services: Resource, Speech, Academic Intervention

Classroom teachers see removing obstacles from the developmental paths of children as a key function in their role of facilitator/guide for their students. Sometimes, however, additional help is needed beyond daily classroom support.

Resource classrooms provide services for students with specifically identified learning differences and are designed for children who benefit from additional assistance in one or more subject areas. A specifically trained instructor, in collaboration with the classroom teacher, uses precision teaching in a small group setting in order to meet the specific educational needs of children in grades 5K-5th. Following the guidelines of IDEA, students who qualify to receive these services are provided with an individualized education plan, bi-monthly progress monitoring, and progress reporting quarterly to parents in addition to regular and specialized instruction in all academic areas of need.

Through a licensed speech therapist, speech and language support is provided to students identified with a speech or language impairment, as defined by the guidelines of IDEA. Through individual and small group sessions, the speech therapist provides resources and support for the children served. An Individualized education plan, along with the required monitoring and reporting to the school's support team as well as parents, assures that appropriate services and support are provided.

To ensure that all academic needs are met, schools use the MTSS/IT process. This collaborative, collegial process brings all resources to the table to brainstorm and identify ways to support student needs. Student data is tracked as teachers, administrators, special education teachers, school psychologists, the school counselor, and parents meet to plan, review, and assess progress for students identified as having additional needs beyond the classroom. Intervention support also includes after-school targeted instruction/tutoring in reading, math, science, and social studies (CRP), volunteer programming providing one-on-one or group support during the school day, and software program support (ALEKS, Reading A-Z, Moby Max, Dream Box, Lexia).

Erdkinder

The Montessori Middle School model of education is based on an understanding of the developmental needs and learning tendencies of early adolescents. Like all quality programs for this age, Montessori classrooms are characterized by a developmentally appropriate and holistic curriculum, a flexible physical environment, the use of seminars and project-based learning, a strong sense of community, a significant service-learning component, and respectful interactions between adults and students. Unique to the Montessori model is the concept that adolescents need to experience self-sufficiency through living on the land. Dr. Maria Montessori called her program *Erdkinder*—the children of the land.

She proposed that having a program in which adolescents are close to nature and do meaningful work related to their own efforts on the land would help them experience psychological and economic independence. The turmoil of puberty would then take a back seat to real world collaboration and microeconomics, with obvious application to the world of adult work.

While the original Montessori *Erdkinder* model was a farm-based boarding school with student-managed lodging for visiting parents, most contemporary Montessori *Erdkinder* programs are blended versions that offer meaningful land-based experiences and activities for adolescents. In the Montessori Middle School program at Sanders, for example, students spend time at Highland Lake Cove (NC), where they set up tents, farm, do woodworking, prepare meals, study, and reflect on the *Erdkinder*-service learning connection.

No matter its form, *Erdkinder* is a thoughtful and organic experience that allows students to see themselves as independent, worthy individuals who can respectfully and compassionately collaborate with others.

The Montessori Curriculum: The Arts and the Fundamental Spiritual Needs of Humans

The Montessori arts curriculum is an outgrowth of what Montessori termed the spiritual Fundamental Needs of Humans.

The emphasis on the interrelatedness of knowledge in the Montessori environment affects the look and feel of the arts curriculum. The goal is for students to be able to develop artistic skills while engaging with their personal strengths and affinities, in such areas as art, music, dance, and drama. The multi-faceted approach to learning, creating, and communicating in the arts in the Montessori environment results in students who can:

- demonstrate understanding of ELA, math, and cultural topics through creative and expressive projects that integrate the arts with core disciplines (arts integration);
- build specific artistic skills in the visual and performing arts;
- explore specific artistic skills for the purpose of self-expression (art for art's sake);
- understand the artistic gifts from past cultures;
- value the artistic gifts of contemporary world cultures; and
- appreciate the power of art to effect change.

First Plane of Development

The emphasis here is on reaching the artistic potential of each child through exploration and experimentation, along with building understanding of foundational concepts through repetition, hands-on experience, and specific vocabulary.

Second Plane of Development

There is a strong focus on developing abilities to communicate and create original works in the arts, with an emphasis on reaching the artistic potential of each child through exploration and experimentation. Elementary students continue exploring the language/concepts of the arts (music, art, dance, drama). They enlarge their historical/cultural understanding of the arts and their knowledge of the technologies, tools, and materials used by visual/performing artists.

Third Plane of Development

The focus of the third plane is on the “Who am I?” quest. Middle School students develop feelings of self-worth as they understand their contributions to their world, and they experience the importance of their contributions within their community. The emphasis is on creating art or objects that can be used or appreciated by their peers/community. Often these activities emphasize community development or outreach.

The Montessori Curriculum: Practical Life

The Human Tendencies to Order, Activity, Manipulation, Work, Repetition, Exactness, Self-Perfection

The exercises of Practical Life link the home environment to the school environment and develop everyday life skills through real, purposeful work.

First Plane of Development

The main purposes of these activities at the Primary level are the development of concentration, independence, organization, eye-hand coordination, fine motor skills, cultural awareness, and preparation for reading and writing. The activities form the foundation for all other work in the environment. The Practical Life exercises include learning how to take care of the environment, lessons to practice independence through care of self, and polite social interactions.

Some examples of Practical Life lessons are spooning, sweeping, folding, buttoning, food preparation, hand washing, introducing oneself, table scrubbing, pouring, and pet or plant care. There are also activities using movement and silence. Games help the child learn how to function in a group and to develop self-control.

Second Plane of Development

Practical life activities at this level focus on

- planning, recording, and revising work;
- nutrition, exercise, and healthy life choices; and
- speaking, listening, and positive social interaction.

Practical Life activities for the older elementary child continue to focus on everyday life skills, while incorporating increased personal responsibility within the school community setting. Service to the community (local, school, and global) is emphasized.

Third Plane of Development

Maria Montessori observed that adolescent students have a strong desire to engage in purposeful work that is deemed legitimate and valuable by the community. They long for economic independence, and they are ready to contribute in a meaningful way to society. To that end, the Middle School experience integrates a range of practical life skills: adult work, including campus repair and maintenance; food preparation; recycling and composting; and community service.

Practical Life experiences at the Middle School level also include activities that help adolescents increase their comfort level in social situations and with personal life skills. Examples include learning how to tie a tie, writing thank you notes for various occasions, changing a tire, mastering basic cooking techniques, handling aspects of personal finance, ironing, learning rudimentary sewing skills, yard work, and housecleaning.

The Montessori Curriculum: Sensorial

The Human Tendencies to Order, Activity, Manipulation, Work, Repetition, Exactness

First Plane of Development

The sensorial materials are lessons that help children in the Primary class train their brains to categorize and organize information perceived through their senses. The main purposes of the sensorial exercises are the development of observation, comparison, judgment, reasoning, and decision-making skills. These exercises also prepare the child for math through the activities of matching, sequencing, sorting, grading, classifying, and patterning.

Second/Third Plane of Development

While sensorial materials are not part of the Elementary and Middle School curriculum, they pave the way to further refinement of the senses through focused observation and critical analysis, both of which continue to be refined through all areas of the curriculum.

The Montessori Curriculum: Cultural Studies (Science)

The Human Tendencies to Order, Exploration, Communication, Manipulation, Work, Abstraction

“What is a scientist?...We give the name scientist to the type of man who has felt experiment to be a means guiding him to search out the deep truth of life, to lift a veil from its fascinating secrets, and who, in this pursuit, has felt arising within him a love for the mysteries of nature, so passionate as to annihilate the thought of himself.”

Maria Montessori, *The Montessori Method*

First Plane of Development

The focus at this level is on concrete exploration of the physical and life sciences to further classify the child's world. Science is truly a verb in the Primary class. Students explore physical geography, including land and water forms; properties of air, land, and water; weather; magnetism; and buoyancy. Students also explore essential concepts in biology including characteristics and basic needs of living things, distinctions among categories of living things, senses, and body parts.

Second Plane of Development

The first Great Lesson—The Story of the Universe—strikes the imagination of the children and arouses their curiosity about the origins of the universe and our place in it. It provides a structure from which in-depth explorations of the physical universe may be made.

The second Great Lesson—The Coming of Life—has as its purpose to impress upon the children the amazing diversity and developing complexity of life over time. It is also used to communicate the “cosmic task” of each living thing from microorganisms to humans. It provides the framework for all future studies in the life sciences.

Students both independently and collaboratively explore concepts in physics, chemistry, astronomy, earth science, atmospheric science and physical geography through research, experimentation, discussion, writing and presentation. They likewise explore concepts in botany, cell biology, human anatomy, microbiology, ecology, and zoology, adding observations and field studies to the mix. By working in small groups and collaborative pairs, students learn how to operate together successfully, with productive work being the focus of social interaction. Students develop the ability to interact effectively as well as to defend a point of view with their peers.

Third Plane of Development

Students in the third plane of development are involved in current research and in discovering the application of scientific principles, with a focus on personal discovery of scientific principles and concepts. They should feel that their own investigations can have an impact on current problems.

The Montessori Curriculum: Cultural Studies (Social Studies)

The Human Tendencies to Order, Orientation, Exploration, Communication, Activity, Manipulation, Work, Abstraction

First Plane of Development

The focus at this level is on the child's direct experiences of time and culture with the goal of helping the child become a productive member of the family and classroom community. Students explore concepts of time, including calendar studies; clock studies; past, present, and future; and seasonal change. They begin to develop their personal biography and engage in cultural experiences that help them to develop an appreciation for and understanding of their culture as well as other cultures around the world.

Second Plane of Development

The third Great Lesson—The Coming of Humans—has as its focus the special qualities of humans and particularly the development of tools. It is used to impress upon children the fundamental needs of humans, how those needs have been met throughout time, and the contributions of various civilizations to the world we know today. Social studies explorations follow from this lesson.

Students work independently and collaboratively to explore human history and prehistory; constructs of time; the fundamental needs of humans, including the various ways people have found to meet those needs; world civilizations; political geography; human geography; economics; and both U.S. and S.C. history and geography.

Third Plane of Development

Students work independently and collaboratively to explore ancient and contemporary history; geography; economics politics; and both U.S. and S.C. history and geography. Through Project-Based Learning, students become deeply involved in learning about and effecting change in their own environments. Students engage in inquiry-based projects through independently chosen assignments and activities.

The Montessori Curriculum: Language

The Human Tendencies to Order, Exploration, Communication, Activity, Manipulation, Work, Abstraction

First Plane of Development

The child's sensitive period for language occurs from birth to age 6, starting with spoken language, then progressing to writing and reading. Students enrich vocabulary as well as oral and social comprehension through oral games, stories, songs, poems, and shared personal experiences. They engage in concrete, hands-on activities to develop and refine fine motor control and phonemic awareness leading to effective and clear letter, word, phrase, sentence, and paragraph construction. They learn a variety of comprehension strategies and practice progressively more complex reading activities.

Second Plane of Development

The Story of Communication in Signs—the fourth Great Lesson—dramatically presents the evolution of written language and the desire of people throughout time to express themselves in written form. Picture sets and timelines help children envision how alphabets and other pictorial representations of events came to be. They examine how words came into English from other languages, and they apply this knowledge to their own reading and writing. Through in-depth exploration and analysis of all genres and a focus on reflection, transformation, and action, students become proficient in critical literacy.

Students engage in progressively more complex study of word construction and function, grammar, and sentence analysis. They analyze literature as they read increasingly more complex texts. Students develop, practice, and continue to refine their ability to write clear, effective sentences and paragraphs, using appropriate mechanics and conventions of standard written English. They engage in planning, researching, note taking, paraphrasing, summarizing, drafting, revising, editing, and citing their work. They apply these skills to expository, narrative, persuasive, and creative writing, as well as personal communication.

Students develop and continue to refine their ability to speak clearly to present speeches, reports, narratives, and other written work effectively; participate in the creative presentation of ideas in such forms as plays, readers' theater, and podcasts; summarize ideas presented by others; and engage in collaborative discussions.

Third Plane of Development

At this level, students explore multiple genres and authors as they mature in their ability to think critically about the writings of others and apply that understanding to their own writing, whether informative, argumentative, or narrative. Relying on a combination of self-evaluation and the peer editing process, students craft original essays and other pieces that accurately and clearly convey their thoughts to a reader or audience, and they publish authentic work in a variety of formats. Through seminars and collaborative study, students examine literature in its historical context, with an eye towards thematic and interdisciplinary connections.

The Montessori Curriculum: Language (Media/Technology)

The Human Tendencies to Order, Exploration, Communication, Activity, Manipulation, Work, Abstraction

Dr. Montessori described an optimal educational environment as one that 1) provides an aid to life, and 2) functions to remove obstacles from the path of the child's development. In the area of technology, we agree with the International Society for Technology in Education (ISTE) that technology should be about creativity and innovation; communication and collaboration; research and information fluency; critical thinking, problem solving, and decision making; digital citizenship; and a sound understanding of technology concepts, systems, and operations.

First Plane of Development

Media Center program goals for Primary students relate to strengthening concepts of print, effective use of the library, and appreciation of literature. Lessons and experiences with Montessori manipulatives provide the multisensory, real-life avenue through which learning occurs. At the Primary level, then, technology is introduced to provide appropriate auditory and visual reinforcement of learning, and as a means of creative personal expression and communication.

Second Plane of Development

“Our aim is ... so to touch [the child's] imagination as to enthuse him to his innermost core,” Dr. Montessori reminds us. The versatility and immediacy of technology is used to tap into the inherent enthusiasm and social nature of students in the second plane of development and support their use of technology to share their hearts and minds openly, enthusiastically, and regularly with authentic audiences. Basic skill development assists this process.

Students creatively utilize a variety of digital tools independently and for collaborative learning projects. In addition, student engagement is actively supported for issues of 1) bias in digital resources (including bias in the area of social justice), and 2) positive/negative effects of technology on the global community. The goal is for students to be *enlightened consumers of media and technology*.

Elementary Media Center goals include effective use of the library, understanding and appreciation of literature, and information problem solving. Students learn how to utilize media center resources effectively to explore areas of interest, to investigate topics that emerge from preliminary research, and to use effective strategies to gather, analyze, synthesize, and present information to others to ensure optimal understanding. Students' own district-supplied devices provide additional support for these technology goals.

Third Plane of Development

At the Middle School level, students continue to hone basic computer skills in their daily work (e.g., typing, using document and spreadsheet software, submitting assignments by e-mail or Google Docs, finding reliable and helpful research sites using a search engine, creating a persuasive presentation with appropriate software). At the same time, they are effective users of print reference materials, such as dictionaries, encyclopedias, and atlases, and they understand the power of primary sources in research. Students actively discuss ethical online behavior, bias in online information, and problematic conduct by peers related to social media. They use digital tools to support innovation and problem solving, and they experience the challenges and exhilaration of digital interaction and collaboration.

The Montessori Curriculum: Language (World Languages)

The Human Tendencies to Order, Exploration, Communication, Activity, Manipulation, Work, Abstraction

The emphases on cosmic task and community in the Montessori environment translate into a dual focus on cultural and linguistic knowledge in the Spanish curriculum. The goal is for students to be able to demonstrate insight into what it means to be committed to a global community and thoughtfully contribute to discussion of specific essential questions, such as

- How does where one lives affect how one lives?
- How and why are Spanish-speaking nations outside our own connected to our past, present, and future?
- How do cultural differences cause problems in our global community? How might those problems, including fear of those different from oneself, be overcome?
- How can I use what I am learning to make a positive contribution to my local and global community now and in the future?

First Plane of Development

The emphasis at this level is on key expressions for communication; cultural celebrations; traditional and modern songs and stories; and information about specific Spanish-speaking countries. The linguistic focus is on developing novice level proficiency in listening and speaking.

Second Plane of Development

The emphasis at this level is on nuances in communication based on social situations; following directions in Spanish; increasing vocabulary; cultural celebrations; and geography/weather information about specific Spanish-speaking countries. Prior to entering the Upper Elementary program, students add reading to the linguistic focus on developing novice level proficiency in listening and speaking. Emphasis in Upper Elementary is on activities that simulate real-life situations and on use of primary sources to provide unique perspective on the target culture. Linguistic focus is on developing intermediate level proficiency in listening, speaking, reading, and writing, with a demonstrated ability to engage in simple conversations.

Third Plane of Development

The focus at this level is on effective use of a world language to communicate accurately and appropriately in a culturally aware way. Emphasis is on meaningful communication in multiple contexts, including interpreting what is heard/read/viewed; accurately navigating spoken/signed/written conversations; and presenting on a variety of topics to various audiences/viewers/readers.

The Montessori Curriculum: Mathematics (The Mathematical Mind)

The Human Tendencies to Order, Exploration, Communication, Activity, Manipulation, Work, Abstraction, Self-Perfection

"Human intelligence today is no longer a natural intelligence but a mathematical intelligence. Without a mathematical education it is impossible to understand the progress of our time or to participate in it. In our time, a mind without mathematical culture is comparable to that of a [person] ignorant of the alphabet... In its natural state the human mind is already mathematical: it tends toward exactness, measure and comparison."

Maria Montessori

First Plane of Development

Practical Life and the Sensorial areas of the primary classroom provide direct preparation for success in mathematics. Children in the Primary classroom work with a variety of manipulatives to explore concepts of numeration, the decimal system, real world problem solving, computation, the arithmetic tables, whole numbers, fractions, positive numbers, and geometry. All manipulative work is followed by language work to clarify the concepts being explored.

Second Plane of Development

The fifth and final Great Lesson—The Story of Numbers—helps children see that mathematics and its applications and geometry are ways of communicating about quantitative concepts. This Great Lesson shows the ways in which people have expressed mathematical ideas over time, with special emphasis on the development of the decimal system. This story anchors all the children's work with numbers.

The goals of the math curriculum are for children 1) to perceive the impact on and the connection of math to the world around them and 2) to possess the confidence and skills necessary to problem solve and reason logically in real-world situations.

Students explore the history of numbers and numeration including non-decimal base systems and develop an increasingly deeper and more abstract understanding and application of mathematical foundations, arithmetic, geometry, mensuration, and graphing.

Third Plane of Development

As students transition out of the elementary grades, they have a growing capacity for abstract thinking and analysis. Thus, the Middle School's algebra and geometry curriculum combines more traditional instruction, e.g., textbooks, lectures, and lab work, with Montessori approaches such as manipulative materials, projects, and seminars. The core curriculum corresponds with the South Carolina College and Career Readiness Standards. Students use higher-order thinking skills to solve problems in relation to a variety of challenges, from practical money transactions to algebraic relationships; and they explore in greater depth numbers, properties, simple equations, higher measurement, computer calculation and graphics, geometric proofs, and algebraic equations.

The curriculum also follows an authentic Montessori approach in which math is taught as a discipline in the context of human history and culture. Classroom learning is integrated with the use of mathematics as part of the occupations, science, and other disciplines. Students use math in multiple practical situations.