



Characteristics of an AMS Montessori Secondary Program

A Montessori Secondary Program for middle and/or high school students is based upon Maria Montessori's writings and philosophy. While Dr. Montessori clearly articulated a curriculum for Montessori Early Childhood and Elementary age groups, she left only general guidelines for Montessori Secondary programs, writing of the need for secondary school reform that addressed the unique developmental characteristics of 12- to 18-year-olds.

Dr. Montessori's theories, which are today supported by modern scientific research, provide direction for establishing a prepared learning environment for adolescents. These environments integrate vigorous student-centered academic studies with purposeful work, preparing adolescents to become contributing adult-citizens who are self-confident and who possess skills needed to thrive in society.

Developmental Characteristics of the Adolescent (12 - 18 years of age)

We must truly consider this mysterious and wonderful creature which the adolescent is because adolescence, one can say, is not only a period of growth, but rather a great transformation – if you like, a creation.

Montessori; 34th Lecture, 1938

A Montessori Secondary program is designed to address the needs of students entering a new plane of development characterized by construction of the social self, issues of self-concern and self-assessment, critical thinking, and the continued construction of social and moral values.

During this period, the adolescent demonstrates the following characteristics:

- Adolescents experience a period of tremendous physical growth, the onset of puberty (sexual maturation), and boundless energy.
- Typically, adolescents experience self-awareness and self-criticism, emotional ups and downs, uncertainty, vulnerability (self-doubt and hesitation), argumentativeness, and ego-centrism.
- Socially, they seek solidarity with peers. However, they can be critical of those peers and of adults. Concurrently they crave greater independence. They are concerned with human welfare and dignity, and are often morally and ethically minded.
- Adolescents exhibit novelty-seeking and risk-taking behaviors and seek intensity and excitement as a result of their under-developed pre-frontal lobe (which controls impulses and emotions). They exhibit an increased desire for autonomy, an increased interest in “group-think”, and susceptibility to peer pressure. Adolescents benefit from positive bonds with non-parental adults they can trust.
- Cognitively, adolescents are critical thinkers who question why, are creative and have a greater ability to reason, and are capable of mature thought if framed in a personal context.

Key Features of a Montessori Secondary Program

But above all it is the education of adolescents that is important, because adolescence is the time when the child enters on the state of manhood and becomes a member of society.

Montessori, 1948. P. 60

Dr. Montessori did not intend for a Montessori Secondary program to stand-alone. Ideally, Secondary programs grow from Montessori Elementary programs so that the majority of Secondary students have previous Montessori experience over a 3-year cycle. If there are openings, students without a Montessori background may be considered, but it is recommended that they make up no more than 25% of the student body of the school.

The classroom environment is characterized by a student-centered, constructivist approach that enables adolescents to manage time, exercise choice, organize themselves, and practice self-regulation and reflection within a group context. The adolescent community is a mini-society of adolescents and teachers in which relationships are nurtured.

In Secondary I programs, the ideal community classroom will have two adults working together to integrate curriculum content. For example, there are two core academic teachers, or one academic teacher and a specialist or assistant.

In Secondary II programs, the ideal community will have core subject-specific teachers working together to integrate the curriculum content.

The adult-to-adolescent ratios at Secondary I and Secondary II should optimize a sense of community and ensure that teaching staff are able to develop strong personal relationships with their students.

The schedule allows for **uninterrupted work periods** for core curricular subjects (math, science, social studies, language arts, additional world languages, and other core subjects). Uninterrupted work periods (a minimum of 90 minutes for each core academic subject as opposed to shorter periods of time) honor student choice, foster concentration, and support student engagement in work.

The classroom structure also allows for **multi-age groupings** in core curricular classes. Secondary students may be grouped in 2- or 3-year age groupings as follows: ages 12-14, 14-16, 16-18 (grades 7-8, 9-10, 11-12) **or** ages 12-15, 15-18 (grades 7-9, 10-12).

Adolescent communities allow opportunities for collaborative work and student leadership as exhibited by:

- Daily student-led community meetings
- A community of learners engaged in collaborative work
- Activities such as structured dialogue and discourse among students, inquiry-based problem solving, and applied scientific method that encourage diversity of perspectives, thoughts, and learning styles
- A culture that fosters compassionate and respectful interactions
- A just society for all, demonstrated through grace and courtesy

Montessori Adolescent programs promote responsible and ethical **use of technology**, with the majority of the school day spent in learning activities and practices that require peer-to-peer and student-teacher interaction.

The Montessori Secondary environment has the necessary **materials and supplies** for academic courses and Erdkinder work.

Curriculum Areas

Study should not be restricted by the curricula of existing secondary schools...the aim should be to widen education instead of restricting it.

Montessori, 1948. P. 71

Although Dr. Montessori did not create a curriculum for the third plane of development, she did offer a general outline of study. A Montessori Secondary curriculum:

- Meets the developmental needs of the adolescent
- Builds upon the Montessori Early Childhood & Elementary curricula
- Follows the three-period learning design
- Exhibits a transdisciplinary approach to learning
- Includes student-led community meetings and opportunities for collaborative work
- Is student-centered and constructivist as evidenced by students managing time, having choice, organizing, and participating in whole-group decision-making
- Cultivates awe and wonder
- Incorporates time for reflection, silence, and solitude into the daily schedule
- Offers field studies and out-of-classroom excursions designed to cultivate global citizenship
- Requires field experiences in nature that may include land labs, camping, internships, service learning, and outdoor education trips
- Provides experiences that promote a genuine understanding of economics that may include developing and running a business or selling produce at a farmer's market
- Fosters a culture that engenders a sense of hope in the progress and potential of the human spirit

Dr. Montessori emphasized that Montessori Adolescent programs should be rooted in work of the hands and heart, as well as work of the head. Especially for 12- to 14-year-olds, a Montessori curriculum is rooted in “Erdkinder”, the German word for “Earth Children”. As important as intellectual work is at this level, the inclusion of activities in nature (e.g. farming, gardening, physical work) that are directly tied to the adolescent’s heart and hands is emphasized. A minimum of ten days of overnight field study per year, which may be delivered in two 5-day intersessions, is recommended.

A spiral curriculum is implemented to expose students to many interrelated topics, repeatedly over time. The Montessori Secondary program expands upon learning fostered in Elementary programs and includes core curricular courses of language arts, mathematics, sciences, and social studies that are cognitively challenging in scope. In addition, students take specialized courses including world language courses, visual and performing arts, health, and fitness, among others and participate in field studies linked to themes, academic work, and service learning. Practical Life at the Secondary level includes student use of checklists, work plans, planning calendars, and/or study guides that promote executive functioning skills such as time management, organization, and decision-making.

Montessori Secondary students engage in independent, interest-based research projects that integrate core curricular areas and electives. The scope of these projects matches the developmental level of the students, beginning in Secondary I and culminating in a High School Senior Thesis project/presentation.

The Montessori Secondary curriculum emphasizes the nobility of work—that is, meaningful work done with humility and purpose. The curriculum allows for differentiation and choice, supports engagement and focus on all work tasks, and promotes mastery learning. Lessons and activities encourage active engagement, questioning and dialogue. Students use self-evaluations and rubrics to reflect on and self-assess their learning.

Role of the Teacher at the Secondary Level

(Teachers) should have the proper qualification for teaching in secondary schools, but this does not mean that they should be free to use their own methods, for they must agree to adopt special methods ... these teachers should be open-minded, ready to take part in a new experiment.

Montessori, 1948. P. 80

Montessori Secondary teachers are viewed as facilitators and student-centered guides, compared with “traditional” teachers who provide direct instruction. As such they are required to complete a highly specialized course of training and earn an AMS Secondary credential. Procedures and practices for fully implementing a Montessori Secondary program are specifically taught to adult learners in teacher education programs. These practices are developed during and after the completion of training, so that each Secondary program is individual and unique based upon the program location, the school culture, and the needs of the adolescents.

Montessori Secondary schools must have core teaching faculty who hold (or are in the process of earning) an AMS Montessori Secondary credential. Core subjects can include math, language arts, social studies, sciences, foreign languages, and Erdkinder.

The Montessori Secondary teacher fosters teacher/student/peer interactions that exhibit respect, and grace and courtesy. The Montessori Secondary teacher will:

- Complete a highly specialized AMS Secondary course that focuses on appropriate processes for teaching and learning in the third plane of development and earn an AMS Secondary credential
- Apply current research in the field of adolescence that align with Montessori process and content
- Serve as an inspiring role model
- Practice personal and professional reflection, self-care, and renewal activities on a regular basis
- Recognize and support the development of positive qualities in the adolescent by maintaining a vision of what students can become, and providing support and encouragement for each student to achieve his or her full potential
- Observe and respond to adolescent needs for leadership, movement, creativity, problem-solving, responsibility, independence, and autonomy
- Demonstrate mastery of curriculum content by providing whole- and small-group lessons, mini lessons, and individual coaching to students
- Create work that helps students synthesize learning
- Foster and support cooperation and collaboration within the adolescent community
- Assist the adolescent in finding her/his place in society

Role of the Family at the Secondary Level

During the difficult time of adolescence it is helpful to leave the accustomed environment of the family in the town and go to quiet surroundings in the country, close to nature.

Montessori 1948. P.80

At the third plane of development, the role of the adults in the family changes from what it was during the earlier years. Their role is to:

- Learn about the unique characteristics of adolescents and the Montessori Secondary program
- Advocate for the healthy development of their adolescent's unique identity and belief system
- Set and maintain firm but reasonable limits and enforce those limits consistently
- Encourage the appropriate development of their adolescent's independence
- Recognize and honor the importance of the adolescent community

Dr. Montessori recognized the important role of families at all developmental levels. She understood that young people entering adolescence were no longer children and not yet adults. One goal of the Montessori Secondary program is to help the family adapt to the transitional dynamics of adolescence. For example, in order for the student to experience real-life decision making, family members are discouraged from supervising field studies. On the other hand, it is imperative that the family attends student-led conferences that celebrates the student's growth.

Essentials of a Montessori Secondary Program

The eight essentials listed below are provided to communicate clearly what are considered the core essentials for a Montessori Secondary program. It takes time to implement all the features and aspects described above. In an effort to assist programs that would benefit from a clear list of core requirements, the eight essentials for a Montessori Secondary program are:

1. Honors the social needs of adolescents by serving a minimum of 8 students.
2. Has multi-age groupings in core curricular classes. Secondary students may be grouped in 2- or 3-year age groupings as follows: ages 12-14, 14-16, 16-18 (grades 7-8, 9-10, 11-12) or ages 12-15, 15-18 (grades 7-9, 10-12).
3. Is student-centered and constructivist as evidenced by students managing time, having choice, organizing, and participating in whole-group decision-making
4. Has student-led community meetings and opportunities for collaborative work.
5. Has a schedule that minimizes disruptions in physical and mental work flow and that maximizes time for student engagement in their work. The schedule includes work periods that are 90 minutes or more in length. A common model of weekly scheduling is that of four days per week for each core subject. The fifth day is typically reserved for going outs, specials, etc.
6. If curricular subjects are separated, the schedule allows for 90-minute (or more) class periods for each core subject.
7. Has the necessary materials and supplies for implementing academic courses and Erdkinder work.
8. Has core teaching faculty who hold (or are in the process of earning) an AMS Montessori Secondary credential.

Montessori Secondary teacher education programs may have additional requirements.

AMS School Accreditation

Schools that are working toward AMS School Accreditation status must meet the criteria outlined by the AMS School Accreditation Commission (SAC). The accreditation criteria aligns with the features described above and provide greater specificity as well as elements required for all levels.

Resources to Support Montessori Secondary Programs

AMS Montessori Uninterrupted Work Period: See www.amshq.org > School Materials

AMS School Accreditation Standards and Criteria: See www.amshq.org > AMS School Accreditation

AMS Suggested Materials Lists: See www.amshq.org > School Resources > Classroom Materials

Readings to Support Montessori Secondary Programs

Allen, Joseph and Allen, Claudia Worrell. *Escaping the Endless Adolescence: How We Can Help Our Teenagers Grow Up Before They Grow Old*. New York: Ballantine Books, 2009.

Breiman, Robyn and Coe, Betsy. "Why Sixth-Graders Should be in a Montessori Upper Elementary Program." *Montessori Life*. Summer 2016, Vol. 28, No. 2.

Csikszentmihalyi, Mihalyi. "Flow and Education." *The NAMTA Journal*. Cleveland Heights, 1997.

Donahoe, Marta and Scholtz, Barb. "Montessori for the Third Plane of Development." *Montessori Life*. Fall 2016, Vol. 28, No. 1.

Donahoe, Marta, et. al. "Best Practices in Montessori Secondary Programs." *Montessori Life*. Summer 2013, Vol. 25, #2.

Goleman, Daniel. *Emotional Intelligence: Why it Can Matter More Than IQ*. New York: Bantam Books, 2005.

Kessler, Rachel. *The Soul of Education*. Alexandria: Association for Supervision and Curriculum Development, 2000.

Montessori, Maria. "The Physical and Psychological Development of the Adolescent." (1938). Double Theme Issue on Montessori and the Adolescent; *Journal of the Association Montessori Internationale*. Amsterdam: Association Montessori Internationale. (2011).

Montessori, Maria. "The Adolescent – A Social Newborn." 1938. Double Theme Issue on Montessori and the Adolescent; *Journal of the Association Montessori Internationale*. Amsterdam: Association Montessori Internationale. (2011).

Montessori, Maria. *Education and Peace*. (1949). Chicago: Henry Regnery Co., 1972.

Montessori, Maria. *From Childhood to Adolescence*. (1948). Oxford: Clio Press, 1994.

Piche, P. (2017). There's no such thing as the real world. *Montessori Life*, 29 (3), 68.

Siegel, Daniel. *Brainstorm: The Power and Purpose of the Teenage Brain*. 2013. New York: Penguin. 2015

Sternberg, Laurence. *The Age of Opportunity: Lessons from the New Science of Adolescence*. 2014. Boston: Houghton Mifflin. 2015