



CLANMORE  
*Middle School*



*Curriculum Guide*



# The Clanmore Montessori Middle School Curriculum Guide

At Clanmore, Middle School students experience a curriculum that was developed to meet their specific developmental needs. Our program aims to provide each student with a multitude of opportunities for intellectual stimulation, creative expression, independence and responsibility, social development and personal growth.

The Clanmore Middle School Curriculum was developed with the understanding that any student who attends will remain for the full two-year cycle and that over these two years, will receive instruction and opportunities to learn about the various subject areas identified below.

## Math

In a Montessori Middle School classroom, math is taught in a variety of ways to ensure that students engage and enjoy the exploration of math concepts. Math seminar is offered in which students are provided with a mathematical problem that they must solve individually and return to discuss their approach to the problem with their peer group. Additionally, applied math problems that require the real-life application of math concepts are included in some units. Finally, other units of math will be taught using the text *Math Makes Sense*. By using these diverse approaches to teaching math, the Middle School faculty hopes to encourage an excited engagement in the math curriculum for each and every student.

The following concepts will be covered in these various ways throughout the 7th and 8th year, as noted:

- Number Sense and Numeration
  - Factors & multiples; squares & square roots; exponents; number patterns (7th Year)
  - Prime factorization; expanded & scientific notation; order of operation; solving equations (8th Year)

- Ratio and Rate and Percent
  - What is ratio? Equivalent ratios & comparing ratios; application of ratios; what is rate? (7th Year)
  - Relating fractions, decimals & percentages; estimating and calculating percentages; multiplying to find percentages; dividing to find percentages; drawing circle graphs (7th Year)
  - Using proportions to solve ratio problems; scale drawings; comparing rates; calculating and solving percent problems; sales tax, discount & commission; simple interest (8th Year)
- Geometry and Measurement
  - Sketching solids; building objects from nets; using variables in measurement formulas; surface area and volume of a rectangular prism (7th & 8th Year)
  - Angle properties of intersecting lines; angles in a triangle; angle properties of parallel lines and transversals; constructing bisectors; constructing angles (8th Year)
- Fractions and Decimals
  - Equivalency between fractions; addition, subtraction, multiplication & division of fractions; converting fractions to decimals; multiplying and dividing decimals; order of operations with decimals; dividing by 0.1, 0.01 and 0.001 (7th & 8th Year)
- Data Management
  - Collecting & recording data; stem & leaf plots; line graphs; spreadsheets; mean, median & mode; data analysis (7th Year)
  - Relating census and sample; inferring & evaluating; using spreadsheets to create graphs; measures of central tendency; drawing histograms and circle graphs (8th Year)
- Perimeter and Area:
  - Area of a parallelogram & triangle; area and perimeter of a trapezoid; measuring irregular figures (7th Year)

- Transformational Geometry
  - Classify figures; congruent figures; transformations; tiling patterns (7th Year)
- Integers
  - Understanding integers; comparing and ordering integers; adding & subtracting integers (7th Year)
  - Multiplying & dividing integers; order of operations with integers; graphing & coordinate grid; graphing translations; reflections & rotations (8th Year)
- Patterning & Algebra
  - Number patterns; graphing patterns; variables in expressions; evaluating algebraic expressions; reading & writing equations; solving equations (7th Year)
  - Number patterns; describing number & geometric patterns; solving equations with algebra (8th Year)
- Probability
  - Listing outcomes; experimental vs. theoretical probability; applications of probability (7th Year)
  - Probability range; tree diagrams; simulations; odds for and against (8th Year)
- Square root and Pythagoras (8th Year)
  - Constructing and measuring squares; estimating square roots; Pythagorean relationship; applying the Pythagorean Theorem; special triangles
- Circles (8th Year)
  - Investigating circles; circumferences of a circle; area of a circle; volume of a cylinder; surface area of a cylinder

## Humanities

The Humanities curriculum for the Middle School encompasses the study of subjects that help define our humanity – geography, history, politics, economics, and current events. Through the integrated study of these subjects, students are exposed to the story of humans from the time of hunter-gatherers to the modern world. Over the two years of the Middle School Program, students will have an opportunity to study Canadian history as well as world history. Some topics may include:

- Neolithic Revolution & Mesopotamia
- Government/Democracy
- Montessori Model UN – where students study the international human rights system and a specific country in preparation for their NY trip in March
- Immigration
- Agriculture in early Canada: Iroquois Farming and the Seigneurial System
- Discovery & Exploration in Canada
- The Two Solitudes: French & English Canada
- Oakville Study

## Language Arts

Middle School students continue to refine and expand upon the grammar, mechanics and vocabulary skills first presented in the Elementary programme: however, there is a shift in focus at the Middle School in that Language is taught so that it can be used not only for academic purposes, but also for self-exploration and expression.

## Literature & Novel Study

Students in 7th and 8th year will be introduced to short stories and will study at least four novels each year. Novel study includes an opportunity to regularly reflect on the text through Socratic Seminar. Novels offered during the Middle School years include, but are not limited to:

- *Animal Farm, George Orwell*
- *Lord of the Flies, William Golding*
- *The Outsiders, S.E. Hinton*
- *Of Mice and Men, John Steinbeck*

- Rocket Boys, *Homer Hickem*
- Free?: Stories About Human Rights, *Amnesty International*
- To Kill A Mockingbird, Harper Lee
- Inherit the Wind, *J. Lawrence & R.E. Lee*
- Twelfth Night, *William Shakespeare*
- The Given, *Lois Lowry*
- Fahrenheit 451, *Ray Bradbury*
- Ashes of Roses, *Mary Jane Arch*
- Life of Pi, *Yann Martel*

In addition, students will be required to choose four other novels to read for personal enjoyment and reflection throughout the year.

## **Study of Written Language**

Students in the Middle School are provided with instruction in written language and are offered a variety of written expression opportunities to practice what they have learned throughout their studies. Over the course of 7th and 8th year, students will learn about:

- The Tower Process of writing
- Essay writing
- Reflective journaling
- Grammar studies
- Introduction to Socratic Seminar
- Poetry (various forms)
- Creative writing
- Response to literature
- Debate
- Letter writing
- Research & writing a research paper
- Interviews
- Playwriting
- Biography & autobiography

## Science Occupations

In a Montessori Middle School, “occupations” are integrated science projects that arise from the needs of the Middle School community and its environment. They provide the students with hands-on experience of science investigation and study. Students have a choice of projects within each occupations unit. Students receive key lessons from their teachers that provide the basic understanding of the necessary scientific concepts from which they then engage in self-directed study and work. At the end of the project, students share their learning with the rest of the Middle School community. Over the two-year cycle, students are exposed to a variety of scientific areas including: chemistry, physics, botany, zoology, earth science, astronomy, etc. Year 8 students often develop expertise in a particular project and may take on manager responsibilities of an area that they have studied and worked on in Year 7 (e.g. management of the Middle School garden).

Some of the occupations units covered might include:

- Water Study: Pond construction or Joshua’s Creek study
- Optics: Astronomy or Photography study
- Ecology: Bees or Garden Preparation
- Environmental Science: Greenhouse construction or Sustainable Living study

## Micro-economy

Adolescents are keenly interested in the way that society organizes itself. In the Clanmore Middle School program, students are introduced to one of the ways that this happens: production and exchange. Students participate in micro-economy projects that often stem from their work in Science Occupations, Humanities or Creative Expression. Students produce items, services, or events, and these are offered for sale or purchase to the wider community. The money that is earned is returned to the micro-economy budget so that it may be used to fund additional micro-economy ventures or special events that the students decide upon as a community. Students take on management roles important to the micro-economy and learn about budgeting, accounting, investment, marketing and other business related topics. Look out for their fantastic offerings through the seasonal marketplace, The Crossroads Café, and at various whole school events!

## **French**

French at the Middle School level continues to be provided through the Accelerated Integrated Methodology (AIM). Students receive French instruction four times per week from the Clanmore French specialist. In addition to regular classes throughout the weekly schedule, the French specialist will regularly participate alongside the students as they cook and share a meal. In this way, students are exposed to a less structured experience of the French language, in its everyday usage.

## **Creative Expression (Art, Music and Drama)**

As adolescents explore and experiment with their own developing identities, creative expression opportunities become fundamental to the Middle School curriculum.

### **Music**

Clanmore offers an exciting approach to Middle School music that includes instruction in ukulele, guitar, vocals, music composition, ensemble work and songwriting. Additionally, Middle School students will be offered drum, rhythm and vocal workshops throughout the school year. Students will have access to instruments at the school.

Every opportunity will be offered for performance. This is aimed at facilitating the expression of personal artistic feeling.

As always, students will have access to on-site piano lessons. Please note that these lessons must be arranged directly with the outside specialist and paid for in addition to the Middle School tuition.

### **Art**

Middle School students receive art instruction from the Art specialist at Clanmore. Over a two-year period, student are exposed to the following curriculum:

- Size & proportion (photography)
- Optical Illusion: Esher
- Two-point perspective
- Holiday craft
- Balance: Symmetry, Asymmetry, Bilateral, Radial
- Installation Art: Visual and Sound Art

- Glass Work
- Chalk Pastel
- Gallery visit to look at art history with a focus on historical & contemporary art
- Art History - Group of Seven
- Colour Exercise: Colour Mixing, Tints and Shades
- Holiday craft
- Work with Clay
- Set design

In addition to formal and informal instruction in music and art, the Middle School offers opportunity for students to gather on their own, to create and present, at their leisure, their own forms of personal expression. This may be an informal “jam” after school, or a more organized art show or coffee house where students share with each other the artistic endeavours that are unique to them as individuals and as a group. Often, their micro-economy offerings and cafe can incorporate this expression as well (e.g. woodcraft, jewelry making, photography, etc.).

## **Drama**

Drama promotes the development of the whole child. We aim to have each child develop potential in the following areas: social, emotional, physical, cognitive development. The exploration of drama promotes critical thinking through meaningful activity. Children learn the importance of listening, appreciating, problem solving. Activities encourage respect of self and others, and develop empathy and the ability to express.

We will concentrate first on the principles of Drama – focus, movement, vocal development and delivery, and technique – and then the experimentation and incorporation of these principles to gain knowledge of the structure of a performance.

Drama classes and theatre production are offered in the two-year cycle alternating with participation in the Montessori Model United Nations (MMUN).

## Physical Expression (Physical Education)

Movement of the body, for health and for expression, is key throughout the adolescent years. In fact, current research agrees with Dr. Montessori's theory that in order for the brain to function effectively, the body must experience movement regularly. Middle School students participate informally and formally in a variety of sports, games and fitness activities offered throughout the school year. Each day, students have free time either before or after school to engage in casual running or hiking in and around the school and they often choose to arrange a game of football or ultimate frisbee during their lunch time breaks. More formal classes for Physical Expression are scheduled on Wednesday mornings and may include activities such as:

- Orienteering
- Badminton
- Snowshoeing
- Football
- Volleyball
- Sailing
- Basketball
- Track & Field
- Skiing
- Lacrosse
- Handball
- Ultimate Frisbee
- Soccer
- Cooperative games
- Rock Climbing
- Curling
- Yoga
- Zumba
- Dance

## **Personal physical fitness planning in the Middle School**

At the beginning of the year, each Middle School student will be offered an opportunity to develop his or her own fitness plan based on an initial baseline testing. A certified fitness instructor will conduct the testing and will help each student develop a personal fitness plan for the school year. Students will be offered a reassessment at the end of the year to see how they have progressed toward their own personal fitness goals. Students can work on their fitness goals during free work period, during lunch breaks, before or after school or at home. The aim is to help students understand the value of physical fitness and regular exercise as a part of their adolescent life.

## **Health**

Middle School students engage in several sessions of study on health related topics and are guided through this learning and discussion by Middle School core staff and health professionals from our local community (e.g. an R.N.). Health topics, based on the Ontario Curriculum, are addressed in a safe and comfortable manner and include:

- Healthy eating & nutrition
- Personal safety and injury prevention
- Growth & development
- Human sexuality
- Substance use, addictions & related behaviours
- Mental health & emotional well-being
- Hygiene
- Online safety

## Practical Life Skills

Throughout the Middle School program at Clanmore, students are offered many opportunities to develop practical life skills that they will take with them into high school and beyond, including but not limited to:

- Ontario Food Handling Certification: in preparation for making lunch each day in our school's kitchen
- Care of the Middle School environment: students are provided key lessons and are expected to become responsible for the safe and respectful handling of delicate equipment throughout the Middle School environment, including kitchen appliances, wood working tools, scientific equipment, etc.
- Micro-Economy including the Crossroads Café & seasonal markets
- Service work: volunteer work in the school and around Oakville
- Care of younger children: Middle School students often help out in the Toddler environments, giving them guided, hands-on caregiving experience
- The Restitution Program: Students implement Diane Gossen's Theory of Restitution to guide themselves in creating and maintaining a healthy society. They define their beliefs and aim to live by them. These beliefs, which spring from great discussion, are posted and become a basis upon which good social decisions are made. Central to the idea is that everyone in the group has choice and while we will all make mistakes we can fix them and return to the group stronger as a result of the experience. The needs to belong, have power, freedom and fun are met both by the individual and the group. The ultimate goal is peace for all.

## **Community Building**

The Montessori Middle School is a community of students and faculty learning and working together. In order to develop that sense of community in which students learn about each other and how to work and live in community, extended off-site events are integrated into the curriculum throughout the year. These events not only help bond the students as a community but also offer opportunity for integrated and hands-on study outside of the classroom. These events include, but are not limited to:

- The Odyssey Trip (first week of school each year)
- Montessori Model United Nations (New York City, on alternate years)
- Play production (early spring on alternate years)

## **Outings/Experts**

The curriculum may warrant outings to and visits from experts, from time to time. These outings allow the students to have real-world experience, navigating and learning from their community and the experts that exist within it. Parents will receive notification of an outing prior to its occurrence.



