



Middle School

At FWM the middle-level grades are organized around the specific developmental needs of early adolescence in a way that celebrates the tenets of who we are as a Montessori school. Our middle schoolers define questions or problems that they see as important — The Presidential Election, Stem-Cell Research, Social Justice concerns. Their teachers help guide them to craft a skill-based, content-rich response. The response may include gathering and analyzing information (everything from a quick internet search, to interviewing an expert). Their teachers help guide them as they decide to take action (everything from sharing results informally with classmates, to writing a poem, to hosting a debate, to spearheading a method for community-wide public awareness—The Middle School News). In this way the students' education develops as they engage in purposeful learning around topics and issues that have meaning for them.

MS Social-Emotional Learning

FWM Middle School is an ideal community for early adolescents. Students can stretch themselves, take academic risks, and learn about themselves as leaders, and blossoming young adults.

Humanities

Middle School Humanities classes are part of a three-year journey through regions of the world, continuously making parallels between the past and today's world, with an emphasis on social justice. A conglomerate of literary studies, vocabulary, writing, and social studies, Humanities uses a variety of texts and approaches to the topics that are student-centered, and allow the individual to thrive.

Regular, critical reading is practiced in Humanities classes. Poetry, articles, essays, short stories, and novels of various genres are frequently incorporated into classes. Both individual and group reading occur, as well as discussions about texts. Students learn how to annotate in their 6th year, and they will use annotations to drive class discussion with inquiry, insight, and analysis.

Fluent, multi-paragraph writing is practiced with the students throughout their Middle School years using the Columbia Teachers College rubric as a guide. Essays, poetry, narratives, and research are all part of the writing program. Students are taught to be writers and editors, and practice the writing process independently and together.

Presentations are a regular part of Humanities classes with collaborative projects related to units of study, and bimonthly current events days. Current events are an important component of Humanities as they allow students to become experts in a present, global or national news item. Students write a paper that incorporates research about the issue, summarizes the event, discusses the greater impact on the world, and gives compelling reasons why it matters. They must also lead a discussion with the class using prepared questions to further the conversation, and allow others to voice their opinions.

All students in Middle School use the *Word Wisdom* vocabulary program. The units center around root words and prefixes, and teach students to find meaning not by memorizing definitions, but by making parallels between words. Synonyms, analogies, reading in-context, and writing for meaning with new words help students master them.



MS Math

The Middle School Math curriculum builds on students' mathematical fluency, communication, reasoning, and problem solving skills. There is an emphasis on understanding the how's and why's of the material, as well as how to apply what is learned. Students are placed in a comfortable small group setting where taking mathematical risks with their learning is encouraged. Students learn using a variety of methods such as projects, partner work, independent work or using concrete materials to draw conclusions. All students graduating from the FWM Math curriculum have a successful understanding of Pre-Algebra, Algebra 1 and/or Geometry. The textbook series we use at FWM is *The University of Chicago School Mathematics Project (UCSMP)*.

| Grade Year | Grade Level Course | Above Grade Level Course (students with 90% or higher in grade level course) |
|------------|--|---|
| Grade 6 | <p>The text: <i>Pre-Transition Mathematics by UCSMP</i></p> <p>Some key concepts covered in this course include:</p> <ul style="list-style-type: none"> -Comparing and manipulating fractions, decimals, percents -Solving real world problems to better understand basic arithmetic operations - Identifying angles measures in different polygon shapes -Solving proportions and introducing variable concepts -Calculating surface area and volume of prisms and cylinders | <p>The text: <i>Transition Mathematics by UCSMP</i></p> <p>Some key concepts covered in this course include:</p> <ul style="list-style-type: none"> -Reading and writing rational numbers -Graphing basic linear equations and inequalities -Translating word problems to algebraic expressions - Understanding the Pythagorean theorem and classifying different shapes -Calculating probability of independent and dependent events - Applying the distributive property to algebraic expressions -Solving for linear combinations |



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| Grade 7 | <p>The text: <i>Transition Mathematics by UCSMP</i></p> <p>Some key concepts covered in this course include:</p> <ul style="list-style-type: none"> -Reading and writing rational numbers -Graphing basic linear equations and inequalities -Translating word problems to algebraic expressions -Understanding the Pythagorean theorem and classifying different shapes -Calculating probability of independent and dependent events -Applying the distributive property to algebraic expressions -Solving for linear combinations | <p>The text: <i>Algebra by UCSMP</i></p> <p>Some key concepts covered in this course include:</p> <ul style="list-style-type: none"> -Using algebra to describe real world situations -Testing equations for equivalency -Solving for systems of linear equations -Understanding function notation -Graphing linear equations with exponential growth and decay -Solving absolute value equations and inequalities -Classifying polynomials and multiplying binomials by monomials -Simplifying expressions using exponent properties -Analyzing solutions to quadratic equations |
| Grade 8 | <p>The text: <i>Algebra by UCSMP</i></p> <p>Some key concepts covered in this course include:</p> <ul style="list-style-type: none"> -Using algebra to describe real world situations -Testing equations for equivalency -Solving for systems of linear equations -Understanding function notation -Graphing linear equations with exponential growth and decay -Solving absolute value equations and inequalities -Classifying polynomials and multiplying binomials by monomials -Simplifying expressions using exponent properties -Analyzing solutions to quadratic equations | <p>The text: <i>Geometry by UCSMP</i></p> <p>Some key concepts covered in this course include:</p> <ul style="list-style-type: none"> -Postulates for points and lines in Euclidean Geometry -Understanding conditional and biconditional statements -Analyzing union and intersections of data sets -Comparing isometries -Using the triangle congruence theorem -Drawing 3D shapes and calculating surfaces -Writing two column proofs for transitivity and reflections |



MS Science

The Fraser Woods Middle School Science Program is an inquiry-based program that draws from a diverse set of curricular resources obtained through the Discovery Education tech-book. Discovery Education offers interactive and hands-on inquiry based lessons providing students the opportunity to learn using a variety of resources. By investigating science phenomena through active discovery, students develop deep knowledge, overcome incorrect preconceptions, and build a foundation for future learning. All 6th and 7th year students take part in our annual Science Fair, conducting and presenting an experiment of their own design while 8th year students conduct a long-term, in-depth research project.

The main objectives of the Science program are to help students develop skills in the following key areas, while acquiring content knowledge: laboratory procedures and safety, measurement, information processing and management, scientific investigation, critical thinking and data organizing. Our program's emphasis is on the scientific method and discovery through hands-on activities, field studies, and research. Middle School students learn these skills through active, inquiry-based lesson plans, and cross-curriculum projects that interact with Art, Humanities, Mathematics, and Technology. In addition to regular classroom activities, students conduct laboratory investigations, and research projects individually and in teams, presenting their results in a variety of formats.

MS Anti-Bias

At FWM children explore their own identities as they interact empathetically with people from diverse backgrounds.

FWM aims to nurture in each student the construction of a knowledgeable, confident identity as an individual, and as a member of multiple cultural identifiers (such as gender, race, ethnicity, or class). We enable children to have comfortable, empathetic interactions with people from diverse backgrounds. We also foster each child's ability to recognize bias and injustice, and we cultivate each child's ability to stand up, individually and with others, against bias or injustice.

MS Practical Life

Practical Life activities help children develop their independence. In the Middle School skills pertaining to care of self, care of environment, and grace and courtesy are still important. However, these students use these skills outside of the classroom, in the school, and greater communities.



Some of the most prominent examples of Practical Life in the Middle School involve:

- Class business: in which students learn numerous entrepreneurial skills, including conducting surveys, profit analysis, and running all aspects of a business with the guidance of adults. They run the milk program for lunch for the whole school.
- Fall trip: in which students participate in an off-campus excursion. Activities included: ropes and rock climbing
- End of year trip: in which students travel to another part of the U.S. as it relates to curriculum
- Preparation for next schools: in which students learn and practice the skills necessary for success in their next school and beyond. Such skills include: interviewing, note-taking; studying from textbooks; and test preparation.

Middle School Play:

An exciting part of the Middle School curriculum, and truly student-led event is the Play. Students plan, write, design, and perform a full-length play for the school community. Plot and character development, scene writing, set design, props management/stage crew, tech (lights and audio) are all part of the skills they develop with the creation of the play. While the script is completed in Humanities classes, the three grades work together during Immersion Week to produce the show. During this week, academic classes are suspended while students are immersed in all facets of the production, culminating in the performance. Following the evening performance, is a question and answer segment where the audience can ask the cast members and stage crew about the process, and their experiences. It is a highlight of the Middle School experience at Fraser Woods!

Signature Programs

Advisory Program

At the heart of the Middle School experience is our Advisory program. Advisory groups created by grade level meet daily to discuss group activities and dynamics, as well as to offer individual planning, and organizational guidance to students.

8th Year – Leadership

The 8th Year Leadership Students take great care planning community-building events specifically within the Middle School (in addition to taking part in the larger school community). These include several large community service projects, including a food drive for local families, and a funds drive for global organizations chosen by the students. Other functions include art and athletic events, academic presentations, social events, and day and overnight field trips.



Expert Project

The Expert Project is a long-term independent research project during which 8th Year students investigate a subject of heightened interest with the explicit intention of interacting with experts in that particular field or subject matter to gather research and experience. Students prepare an abridged thesis paper, and a multimedia presentation of their work to the entire school community. The Expert Symposium is the culmination of the 8th Year's academic work, and a celebration of their accomplishments.

Community Service

An important aspect of the Fraser Woods Montessori School mission statement is supporting students to become confident and civic-minded citizens of the world. To that end, the Middle School schedule sets aside time weekly for students to serve the wider school community by assisting younger students in their classroom setting, and on the playground. This consistent experience leads to a deep awareness of our dependence on one another, and the dual reward for the older Middle School child being a mentor, and for the younger child having a mentor.

