

Foundations of Mathematics MFM1P Grade Nine Applied Math

This course enables students to develop an understanding of mathematical concepts related to introductory algebra, proportional reasoning, and measurement and geometry. Real-life examples will be used to develop understanding of linear relations, and facility with different representations of these relations. Investigation, technology, and hands-on activities will be used extensively to help students build their understanding and consolidate their mathematical skills. This course also incorporates our Mastery program, which supports mastery of essential supporting skills and concepts.

The course has been divided into nine units. Students will have access to a text book, as well as printed materials developed by the ministry of education. These materials can be found at the web page: <http://www.edu.gov.on.ca/eng/studentsuccess/lms/tips4rm.html#grade9ap>

Units of Study

- Essential Background Concepts (integers, fractions) **
- Proportional Reasoning: Ratio, Rate and Proportion (TIPS unit 4) **
- Exploring Relationships: Lines and Curves of Best Fit (TIPS unit 3)
- Algebraic Models: Making Connections (TIPS unit 7) **
- Linear Relations: Constant Rate of Change, Direct and Partial Variation (TIPS unit 5)
- Multiple Representations: Linear Relations and their Multiple Representations (TIPS unit 6)
- Measurement : Optimization (TIPS unit 2)
- Plane Geometry (TIPS unit 8)
- Measurement: 2-D and 3-D (TIPS unit 1)

*** Foundational concepts integrated throughout the course*

Evaluation

Evaluation measures achievement against course expectations in the categories of Knowledge/Understanding (KU), Thinking/Inquiry/Problem Solving (TIPS), Communication (COMM) and Application (APP). The course expectations include curriculum strands, as well as:

- **Mastery of Essential Concepts:** Fundamental concepts are developed throughout.
- **Development of Mathematical Processes:** These processes permeate all aspects of the high school math curriculum. They include problem solving, reasoning and proving, reflecting, making connections, representing ideas, selecting tools, and communication.

Expectations	% of Final Mark	Category	Assessment
Mastery of Essential Concepts	10%	KU	Mastery Tests
Development of Mathematical Processes	20%	TIPS, COMM	Performance Assessments, Classroom Observation
Number Sense and Algebra	40 %	KU, APP, COMM	Quizzes, Tests, Assignments, Classroom Observation
Linear Relations			
Measurement and Geometry			

Summative Assessment (takes place near the end of the course)

- Final Mastery Test (5%)
- Final Performance Assessment (10%)
- EQAO (15%) For more information visit <http://www.eqao.com>

Learning skills include work habits, teamwork, initiative, independent work and organizational skills. These will also be assessed throughout the course.

Remember, you are responsible for all material that is covered in the class.
Please try to attend all classes.