



A. Y. Jackson S. S.
www.ayjackson.ca

MPM1D Principles of Mathematics Grade 9, Academic / Gifted

General Course Information

Prerequisite:	
Department:	Mathematics
Extra Help:	See individual teacher
Textbook and Replacement Cost:	Principles of Mathematics 9 – Nelson, \$100
Material Required:	3-ring binder, calculator, ruler, pencil, graph paper

Course Description

This course enables students to develop an understanding of mathematical concepts related to introductory algebra, proportional reasoning, and measurement and geometry through investigation, the effective use of technology, and hands-on activities. Students will investigate real-life examples to develop various representations of linear relations, and will determine the connections between the representations. They will also explore certain relationships that emerge from the measurement of three-dimensional figures and two-dimensional shapes. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

<http://www.edu.gov.on.ca/eng/curriculum/secondary/math910curr.pdf>

Assessment and Evaluation

To promote student success, ongoing assessment and feedback will be given regularly to the students. A variety of assessment and evaluation strategies will be used in this course, including tests, quizzes, group work, and presentations. Expectations will be evaluated based on the provincial curriculum expectations and the achievement levels outlined in the ministry document.

Expectations are organized into four categories of knowledge and skills. The categories and their corresponding weighting is as follows:

Knowledge and Understanding	Up to 35%
Thinking	Up to 20%
Communication	Up to 15%
Application	Up to 30%

Each student's final mark will be in the form of a percentage grade based on their achievement in the 4 categories on the achievement chart. The breakdown of the final mark is as followed:

Term Evaluation	70%
Final Evaluation	20%
EQAO	10%

The final Evaluation will be completed during the final 6 weeks of the course and may include a variety of summative activities including an exam, a presentation, a seminar, or an essay or another writing assignment.

In addition to students' performance in the achievement categories, students will also be assessed on their performance in the following learning skills:

- Responsibility
- Organization
- Independent Work
- Collaboration
- Initiative
- Self-Regulation

For specific policies on assessment and evaluation, and academic honesty, please refer to *School Procedures* in the student agenda.

The course is organized into the following strands:



A. Y. Jackson S. S.
www.ayjackson.ca

MPM1D
Principles of Mathematics
Grade 9, Academic / Gifted

Number Sense and Algebra

- Operating with Exponents
- Manipulating Expressions and Solving Equations

Linear Relations

- Using Data Management to Investigate Relationships
- Understanding Characteristics of Linear Relations
- Connecting Various Representations of Linear Relations

Analytic Geometry

- Investigating the Relationship Between the Equation of a Relation and the Shape of Its Graph
- Investigating the Properties of Slope
- Using the Properties of Linear Relations to Solve Problems

Measurement and Geometry

- Investigating the Optimal Values of Measurements
- Solving Problems Involving Perimeter, Area, Surface Area, and Volume
- Investigating and Applying Geometric Relationships