



COURSE OVERVIEW 2019-2020

Course Name:	Principles of Mathematics Grade 9	Course Code:	MPM 1D
Course Type:	Grade 9 Academic	Credit Value:	1.0
Teachers(s):	Mr. Cowling, Ms Dymock, Mr. Gilbert/Mr. Pursch, Ms. MacDonald		

Course Description:

This course enables students to develop an understanding of mathematical concepts related to algebra, analytic geometry, and measurement and geometry through investigation, the effective use of technology, and abstract reasoning. Students will investigate relationships, which they will then generalize as equations of lines, and will determine the connections between different representations of a linear relation. They will also explore relationships that emerge from the measurement of three-dimensional figures and two-dimensional shapes. Students will reason mathematically and communicate their thinking as they solve multi-step problems.

<http://www.edu.gov.on.ca/eng/curriculum/secondary/mathtr9curr.pdf>

Course Overall Expectations:

Strand	Overall Expectations
Number Sense and Algebra	demonstrate an understanding of the exponent rules of multiplication and division, and apply them to simplify expressions;
	manipulate numerical and polynomial expressions, and solve first-degree equations.
Linear Relationships	apply data-management techniques to investigate relationships between two variables;
	demonstrate an understanding of the characteristics of a linear relation;
	connect various representations of a linear relation.
Analytic Geometry	determine the relationship between the form of an equation and the shape of its graph with respect to linearity and non-linearity;
	determine, through investigation, the properties of the slope and y-intercept of a linear relation;
	solve problems involving linear relations.
Measurement and Geometry	determine, through investigation, the optimal values of various measurements;
	solve problems involving the measurements of two-dimensional shapes and the surface areas and volumes of three-dimensional figures;
	verify, through investigation facilitated by dynamic geometry software, geometric properties and relationships involving two-dimensional shapes, and apply the results to solving problems.

Assessment and Evaluation Strategies:

The purpose of assessment and evaluation is to improve student learning. Assessment and evaluation is based on the provincial curriculum expectations and the achievement levels outlined in the curriculum document. In order to ensure that assessment and evaluation are valid and reliable, and that they lead to the improvement of student learning, teachers use a variety of strategies throughout the course, including: providing students with feedback about their work (known as assessment for learning), helping to set learning goals and monitor their own progress (known as assessment as learning), and evaluation and reporting of progress in the form of grades and marks (known as assessment of learning).

Unit Overview	Assessment and Evaluation Methods (May include major evaluations)
Essential Skills	quizzes, performance tasks, assignments, projects, unit tests thinking project
Trends in Data	
Introduction to Algebra	
Solving Linear Equations	
Introduction to Linear Relationships	
Linear Relations	
Angle Relationships, 2D Geometry	
Measurement, 3D Geometry	
Course Culminating Activities-by strand	
Culminating Assessments	Culminating January Culminating May EQAO

Assessment and Evaluation Categories and Weights:

Achievement Chart Categories		Evaluation/Weight of Marks	
Achievement Category	Percentage	Evaluation	Percentage
Knowledge/Understanding	35	Term Evaluation	65
Thinking/Inquiry	15	Final Evaluation	
Communication	15	• Thinking Project	5
Application	35	• EQAO	10
		• Exam	10,10

Learning Skills and Work Habits Assessment:

The development of learning skills and work habits is an integral part of student learning. These skills are:

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

Learning skills and work habits influence student achievement and are included as a formal part of the assessment and evaluation process. Learning skills and work habits will be assessed through a variety of teacher strategies. (e.g. observation, student /teacher conference, self-reflection, checklists, exit cards, etc.) These important learning skills and work habits will be formally reported on the Provincial Report Card according to the following scale: E- Excellent, G- Good, S- Satisfactory, N- Needs Improvement.

Academic Dishonesty - Cheating and Plagiarism:

Learning tasks that students complete as well as the assignments, tests and exams that students submit for evaluation must be their own work. Cheating and plagiarism is a serious offence that will not be condoned. Academic consequences will result.

Test Policy:

According to the Growing Success Document (2010) a student MUST fulfill his/her responsibilities and commitments within the learning environment, including completing all types of assessments according to agreed-upon timelines.

It is the math department expectation that all students will write tests on the date set out by the classroom teacher. In the event of an illness, emergency, or other significant situation, an exception can be made, provided sufficient documentation is given to the classroom teacher. Please note that parental approval is not a legitimate reason for missing an evaluation. If an acceptable absence is known prior to the assessment date, alternate arrangements must be made with the classroom teacher in advance.

If this expectation is not met, the evaluation will be completed but may not contribute to the student's course marks.

Late and Missed Assignments - Student Roles and Responsibilities

Students are expected to:

- be responsible for providing evidence of their achievement of the overall expectations within the time frame specified by the teacher, and in a form approved by the teacher;
- understand that there will be consequences for not completing assignments for evaluation and/or for submitting those assignments late;
- use class time productively;
- in extenuating circumstances, request an extension from the teacher before the due date.

Mark deductions for late and missed assignments may apply to major assignments only.

References: *TVDSB Assessment & Evaluation Policy, September 2011; Growing Success - Assessment and Evaluation, and Reporting in Ontario Schools, 2010. Student Planner and School Web site*