



MPM1D: Principles of Mathematics 9 Academic Syllabus

Semester 1, 2020-2021

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Course Webpage found under rchs.on.ca → Student Life → Class Resources → Grade 9 Courses

INTRODUCTION

Welcome to the Principles of Mathematics Grade 9 Academic course! Math is fun, challenging, and very, very useful. It was created by real people as a tool to solve real life problems! The applications of math are many: arithmetic, topology, statistics, economics, accounting, computer science, electricity, etc. Mathematics touches nearly every aspect of our lives; therefore, mathematical literacy is essential to function well in our society. Mathematics is also the investigation of the way God has ordered the universe He created. If you study Math, it will train your mind to be logical, systematic, and practical. You will find yourself gaining a greater understanding of how things work and growing into a more complete and mature Christian.

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.

Strand	Chapter	Unit Name
Number Sense and Algebra	Intro	Review of Essential Skills
	3	Polynomials
	4	Equations
Linear Relations	2	Relations
	5	Modeling Linear Relationships with Graphs
Analytic Geometry	6	Analyse Linear Relations
Measurement and Geometry	7	Exploring Properties of 2D Figures
	8	Measurement Relationships in 3D Figures
	9	Optimizing Measurements

RESOURCES:

- Textbook: Principles of Mathematics, 9 (McGraw-Hill), 2006 (**Replacement Cost: \$100**)
- Course Website – sign up at Edmodo.com (details below)

MATERIALS:

- 3 ring binder
- Textbook
- Agenda
- Lined paper (that you can easily take out and hand in)
- Pencils (all work is to be done with pencil)
- Pencil sharpener
- Eraser
- Ruler
- Compass
- Protractor
- Pens (red and blue)
- Dividers or sticky tabs (8 - one for each unit)
- Calculator (non-graphing) – 2 line is ideal

STUDENT EXPECTATIONS/RULES

As a Christian community, we recognise and affirm that God has created us and that He loves each one of us so much that He sent His Son, Jesus Christ, to defeat death and sin for us and invite us into His kingdom life and family! As adopted children of God, we are to be channels of Christ's love to others. The following rules will help us to do this in class:

- 1) Bring ALL materials (as stated above) to class AND take them all with you when you leave.
- 2) Be in your assigned seat with books open when the bell rings and leave when dismissed by your teacher (not the bell).
- 3) Treat each person in the room with dignity and respect (teacher and each other).
- 4) Listen to and follow directions the *first* time they're given (politely ask if something is unclear).
- 5) Follow all procedures and policies as outlined in the RCHS student handbook.

Some Classroom Procedures (others to be discussed in class):

- Go to the bathroom before class. Do not expect to be allowed to go during class.
- Keep a neat and organized notebook. Notes should have dates and should be in order. **You** are responsible for getting any notes or assignments missed when you are absent (start by asking a peer). Keep tests and quizzes to study from.
- Complete your homework on time with proper headings (name, date, page). Homework will be assigned and checked regularly.

Edmodo class page and class codes

Unit outlines and some other materials will be posted on our class page on Edmodo.com. If you already have an account, just add our class using the code below. If you don't yet have an account, just go to Edmodo.com > Sign Up > Student Account. You can give out your contact info or sign up using your Google (Gmail, Drive, etc), Microsoft, or Apple credentials – it's up to you. This resource will be useful if you have to miss class for any reason.

Mr. Armishaw's classes: **cvk9i8** Mr. Hamilton's classes: **75wm4c**

ASSESSMENT

Assessment can be classified as assessment FOR, AS or OF learning. Assessment FOR and AS learning are designed to help you improve your understanding (and do not count towards your mark), whereas Assessment OF learning tools will comprise your mark in this class. Examples of each are shown in the table below. Evidence of student achievement for evaluation is collected over time from three different sources – observation, conversation, and student products.

Assessments FOR Learning: (not for marks)	Assessments AS Learning: (not for marks)	Assessments OF Learning: (counts towards your mark)
<ul style="list-style-type: none">- Observation- Checks of assigned work- Quizzes- Oral Questioning- Tickets Out of Class	<ul style="list-style-type: none">- Peer assessments including working on homework and activities together- Checking Hmk Answers	<ul style="list-style-type: none">- Tests- Performance Tasks- Conversations- Observations- Exam

If you know you will be **away for a test, discuss this with the teacher at least one class day ahead** of the scheduled test day. Tests missed due to **illegitimate absence (skipping) will be recorded as zero**. Tests missed due to legitimate absence will be written on the return of the student during the next math period.

If you require an extension on an assignment, discuss this with the teacher as soon as possible (prior to the due date). If you are sick, absent, or otherwise unable to keep up, please let your teacher know and we can help you come up with a plan. Otherwise, late assignments will be deducted **10% per day** unless extenuating circumstances (health, absences) exist. Please be sure that your assignment is printed and complete prior to the beginning of classes on the day the assignment is due.

Evaluation	Type of Work	Weighting		Category	Wt
Term Work	Tests (7)	40%	Term Assessments OF Learning (products, observations, and conversations)	Knowledge/Understanding	25%
	Performance Tasks (5)	25%		Application	20%
	Observation	2.5%		Thinking	15%
	Conversation	2.5%		Communication	10%
Final Exam		30%	70%		

According to Ontario Curriculum Policy Documents, 70% of your final mark comes from evaluations done during the course and 30% of your final mark comes from your performance on the final evaluations at the end of the course.

Learning Skills are evaluated and reported separately. Each Learning Skill is reported using E, G, S or N (Excellent, Good, Satisfactory, Needs Improvement). Even though Learning Skills are not part of your mark, they are critical to your success in this course and their development is an integral part of your learning.

What are the Learning Skills?

- Responsibility
- Organization
- Independent work
- Collaboration
- Initiative
- Self-regulation