

Math 9 Course Outline

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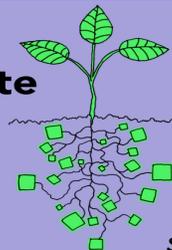
Textbook: Math Makes Sense 9

The **main goals of mathematics** education are to prepare students to:

- solve problems
- communicate and reason mathematically
- make connections between mathematics and its real world applications
- become mathematically literate
- appreciate and value mathematics
- make informed decisions as contributors to society

Course Work: 90%
Final Exam (PAT): 10%

Why do plants hate math?



Because it gives them *square roots*.

Unit	Subsections	Topics
Numbers	<ul style="list-style-type: none"> • Review of Number Concepts 	<ul style="list-style-type: none"> • Factors & Multiples • Prime & Composite Numbers • Greatest Common Factor (GCF) • Least Common Multiple (LCM) • Order of Operations (BEDMAS)
	<ul style="list-style-type: none"> • Integers 	<ul style="list-style-type: none"> • Review of Integers (+/-/x/÷)
	<ul style="list-style-type: none"> • Rational Numbers 	<ul style="list-style-type: none"> • Fractions (+/-/x/÷) • Decimals • Percents • Rational versus Irrational Numbers
	<ul style="list-style-type: none"> • Exponents 	<ul style="list-style-type: none"> • Powers with Integral Bases and Whole Number Exponents • Exponent Laws • Square Roots
Patterns	<ul style="list-style-type: none"> • Polynomials 	<ul style="list-style-type: none"> • Terminology & Definitions • Adding & Subtracting Polynomials • Multiply & Divide Polynomials
	<ul style="list-style-type: none"> • Equations 	<ul style="list-style-type: none"> • Solve Equations
	<ul style="list-style-type: none"> • Linear Relations 	<ul style="list-style-type: none"> • Review of Graphing • Writing Linear Equations from a Table of Values • Substitution • Graphing Linear Relations

		<ul style="list-style-type: none"> • Interpolation & Extrapolation
	<ul style="list-style-type: none"> • Inequalities 	<ul style="list-style-type: none"> • Solve & Display on a Number Line
Shape and Space	<ul style="list-style-type: none"> • Geometry 	<ul style="list-style-type: none"> • Review of Area • Surface Area of Composite 3D Shapes
	<ul style="list-style-type: none"> • Circle Geometry 	<ul style="list-style-type: none"> • Circle Properties • Chords – Perpendicular Bisector Theorem • Angles – Central & Inscribed Angles • Tangents – Radius Theorem
	<ul style="list-style-type: none"> • Transformations on Graphs 	<ul style="list-style-type: none"> • Line & Rotation Symmetry • Similarity of Polygons • Scale Diagrams of 2D Shapes
Statistics	<ul style="list-style-type: none"> • Data Collections 	<ul style="list-style-type: none"> • Bias, ethics • Language use • Cost, Time
	<ul style="list-style-type: none"> • Population & Samples 	<ul style="list-style-type: none"> • PROJECT: collections, display, and analysis of Data
	<ul style="list-style-type: none"> • Probability 	<ul style="list-style-type: none"> • Role in society

You will need:

- A calculator (not a cellphone) – *with exponent and integer (+/-) functions*
- Pencil, eraser, scissors, markers/pencil crayons
- Lined paper, graph paper
- binder
- duotang

- ❖ **Formative Assessment (*Assessment for Learning*)** – These types of assessments are to guide teaching and learning, and will not be used in the calculation of the final course mark
 - bell work
 - practice sheets
 - self corrections
 - group assignments
 - project conferences with teacher
 - vocabulary work included/embedded in lesson structures
 - self-assessments using learning outcomes
- ❖ **Formative Assessment (*Assessment as Learning*)** – These types of assessments are also to guide teaching and learning, and will also not be used in the calculation of the final course mark
 - assigned practice work
 - practice quizzes
 - practice tests as individuals or with group
 - self-assessment
- ❖ **Summative Assessment (*Assessment of Learning*)** – These are the assessments for which the marks will be recorded and used to calculate the final course mark. The weight of each of these types of assessments on the final mark is indicated below:
 - Chapter tests (10) - 70%
 - Exams (2) - 20%
 - Final exam - 10%

Expectations:

1. Class chapter section readings may be expected to be done ahead of time. You might be asked in advance of material being taught in class to go over certain topics, chapter readings, vocabulary or questions in order for you to be prepared with a basic understanding.
2. Be in class on time with all necessary materials, ready to work. If you are not in class at the bell, you will be marked 'absent'. This will be changed to 'late' once you enter the classroom.
3. Students are expected to complete work on time. Practice work and assignments are due at the beginning of the class, on the assigned date. **Students are required to show ALL of their work in answering questions.** You will have time in class to work on assignments and you will have a generous amount of time for your deadlines as well. If the assignment is not handed in on the due date then you are setting yourself behind and it will be very difficult to catch yourself back up. All overdue assignments have to be in a week before my report card marks are due and I will let you know when that is approaching. After this deadline has passed, those assignments will no longer be valid to go towards your grade.
4. If absent, it is the students responsibility to catch up on work or tests missed. Take a look in Google Classroom for your missed work. If you know you are going to be absent, work can be given ahead of time if you ask. Tests and quizzes that are missed are usually made up during P2S.

5. If you are having any difficulty with the course please arrange a time for extra help. Do not let yourself slip behind. Help is available, please ask before it is time for the final at the end of the year.
6. Edsembli is used to keep track of marks and assignments that are completed/incomplete. Please refer to Edsembli and NOT Google Classroom when checking to see if work has been completed.

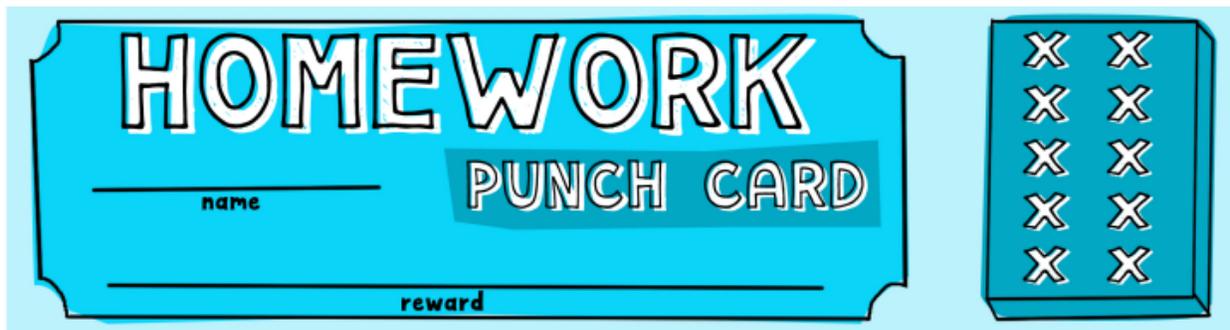
Cell Phone Policy: Your phone will be on silent when you walk in the door. I do not mind if you have your cell phone on you, however it must be out of sight until work time. During the lectures, I expect to have your full attention considering some of these concepts can be tricky. Your phone will be in a pocket, backpack or simply in your locker. During work periods, you are more than welcome to listen to music while you work as long as you have set up a playlist so that it does not become a distraction. If at any point I believe that your phone has become a distraction then I will pass you a paper bag that you will put your phone into. You can keep that bag on your desk, however you will not be allowed to access your phone for the rest of class. If there are further issues, then we might have to have a discussion with your guardians.

Textbook Work

Self-Assessment for Textbook Work:

How to mark:

- 100% I got it all right with no help from the key
- 90% I got it all right, but had to check the key for help a few times.
- 80% I understand it, and could do it without assistance now, but I used the key.
- 70% I got through it all, but would like some help on a few questions (1 or 2)
 - I have indicated on my assignment beside my mark which numbers I would like your help with.
- 60% I got through most of it, but would like to sit down with you at lunch/CHAT to go through what I didn't understand.
- 50% I understood most of it and could use some help, but I have no intention of coming in for help.



Rewards:

Small Rewards:

1 Card- *Candy Bar, Chip Bag, Pop/Beverage, Tim Hortons Gift Card (\$2), Popcorn Bag or Earn an Extra 5% on a Test.*

Large Rewards:

(2 Cards) x (# of students in the class)- *Movie Day or Game Day.*

Parent/Guardian Form

Student's Name: _____

Emergency Contact #1

Name: _____ Relation: _____

Telephone Number: _____

Email: _____

Emergency Contact #2

Name: _____ Relation: _____

Telephone Number: _____

Email: _____

Under the Freedom of information and Protection of Privacy Act all parents/guardians are allowed to ask that their child have no pictures taken of them and/or that their picture is not put on any website for school related purposes. *Please indicate below what makes you and your child the most comfortable:*

- 1) My child can have their picture taken in class pictures (such as during presentations, to showcase their work, etc.) YES NO
- 2) My child can have their picture uploaded to school related websites (such as Google Classroom) YES NO

Please answer a few questions on the back of this page

Questions:

Does your child have any allergies that I should be aware of?

Is there anything you would like to inform me about before we start this school year?

Parent/Guardian Signature: _____