
MATHEMATICS 9 COURSE OUTLINE

2020 - 2021



INSTRUCTOR: Mr. Goldie

EMAIL: jgoldie@rockyview.ab.ca

Google Classroom Code: wjxiccs

GOALS OF THIS COURSE

- Use mathematics to confidently solve problems
- Communicate and reason mathematically
- Appreciate and value mathematics
- Make connections between mathematics and its applications.
- Commit yourselves to life-long learning
- Become mathematically literate adults, using mathematics to contribute to society.

Always remember: Despite what you might think, success in math is more about persistence than natural talent. That means we can all be successful in this class. Keep a growth mindset!

UNITS OF STUDY

Mathematics 9 builds on key mathematical concepts developed in grades 4-8. The focus of grade 9 is applying understandings and learning through problem solving. Students will focus on developing and refining their own way for solving problems throughout the year. As such, their ways of learning and recording work will not always look like traditional methods. Collective knowledge building and problem solving through communication with peers will be the emphasis of learning. Knowledge is best developed by making connections; by looking at mathematical topics as part of a network of learning, students will create deeper and more meaningful understanding.

COURSE SCHEDULE AND OUTCOMES*	
Unit 1 - Rational Numbers <ul style="list-style-type: none">- MA.9.6.N3a - N3a Compare and order rational numbers- MA.9.6.N3b - N3b Solve problems involving rational numbers- MA.9.6.N5 - N5 Determine the square root of positive rational square numbers- MA.9.6.N6 - N6 Determine the approximate square root of positive rational numbers	September/Oct.
Unit 2 - Powers and Exponents <ul style="list-style-type: none">- MA.9.6.N1 - N1 Understand powers and exponents- MA.9.6.N2 - N2 Model, explain and apply exponent laws- MA.9.6.N4 - N4 Explain and apply order of operations with exponents	October
Unit 3 - Similarity and Transformations <ul style="list-style-type: none">- MA.9.8.SS3 - SS3 Show understanding of similarity of polygons- MA.9.8.SS4 - SS4 Draw and interpret scale diagrams 2D shapes- MA.9.8.SS5 - SS5 Show understanding of line & rotational symmetry	November
Unit 4 - Polynomials <ul style="list-style-type: none">- MA.9.7.PR5 - PR5 Demonstrate understanding of polynomials up to degree of 2- MA.9.7.PR6 - PR6 Add and subtract polynomial expressions- MA.9.7.PR7 - PR7 Multiply and divide polynomial by monomial	December

Unit 5 - Linear Relations, Equations and Inequalities - MA.9.7.PR1 - PR1 Generalize patterns using linear equations - MA.9.7.PR2 - PR2 Use linear relations to solve problems - MA.9.7.PR3a - PR3a Model problems with linear equations - MA.9.7.PR3b - PR3b Solve problems with linear equations - MA.9.7.PR4a - PR4a Model problems with linear inequalities - MA.9.7.PR4b - PR4b Solve problems with linear inequalities	January/February
Unit 6 - Surface Area -MA.9.8.SS2 - SS2 Find surface area of composite 3D objects to solve problems	March
Unit 7 - Circle Geometry -MA.9.8.SS1 - SS1 Use circle properties to solve problems	April
Unit 8 - Probability and Statistics - MA.9.9.SP1 - SP1 Describe effects on collection of data - MA.9.9.SP2 - SP2 Select and defend choice of population or sample - MA.9.9.SP3 - SP3 Plan, collect, display and analyze data - MA.9.9.SP4 - SP4 Understand role of probability in society	May/June

*Note: Schedule is subject to change.

EVALUATION

The goal this year is to shift student thinking from seeing math as a product; to see it as the process of getting there. Because of that, marks will be based on a collection of a variety of different assessments. In addition, the final mark will be determined by their knowledge and skill in outcomes outlined in the Alberta Education Program of Studies. A summarized list of these outcomes can be found on Google Classroom.

Mark Breakdown for the Year:

All grades are based on Outcome-Based learning. Outcomes are determined by the Alberta curriculum, and can be seen in PowerSchool. Please check Powerschool regularly!

Student Expectations

Preparation

Come prepared to every class with all necessary supplies and materials:

1. Math binder with lined paper and graph paper, and/or a workbook to complete your work.
2. Pencil(s) and eraser, pen, whiteboard marker, ruler
3. A calculator (Your ipod or phone is NOT an acceptable calculator and not be permitted in ANY exams). Most units will not need a calculator!
4. Personal Learning Device - ***Students should bring a personal device that will support working and learning in this environment. Learning devices are NOT cell phones. A tablet or laptop are considered appropriate learning technologies. Devices should be charged, updated, and ready to use at the start of each day.***



On that note, make sure that your materials are organized. **Organization is the key to success!** It is imperative that you keep organized your notes and work throughout the year. What was done yesterday is essential for success today.

Absences

Absences do not excuse you from assignments - when you do return to school, it is your responsibility to meet with your teacher to discuss what was missed and your options for completion of missed work.

Appeals

Students and parents may direct, in writing, any appeal of the final grade to the school Principal. (see the student handbook).

Plagiarism & Cheating:

It is important in math to know where your skill level is at regardless of what level it is. Copying another person's work it is not a true reflection of where you are mathematically. At Croxford, plagiarism and cheating is a serious offence and will be dealt with.

Extra Help

There are lots of resources for you to use online on Google Classroom. Resources range from notes and examples, online activities, and videos and links to other online resources. If you have any questions, be sure to ASK and advocate for yourself! If you are experiencing difficulties, do not wait until you are totally lost to get help. We can set up a time for extra help if needed.

Cell Phones and Other Personally Owned Devices:

Remember that mobile phones in the classroom are considered a privilege and not a right. They are meant to be a learning/organizational tool and are permitted in the classroom with teacher permission. Students must be able to demonstrate proper digital citizenship when using the device at all times and if they are unable to do so, may be asked to not bring their device in the future.

