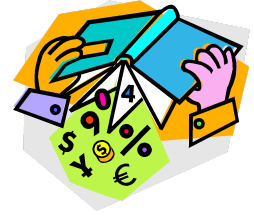


MATHEMATICS 20-2 COURSE OUTLINE



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PURPOSE:

Math 20-2 is designed for students to construct their understanding of mathematics by developing meaning based on a variety of learning experiences. This meaning is best developed when learners encounter mathematical experiences that proceed from simple to complex and from the concrete to the abstract. The use of manipulatives, visuals and a variety of pedagogical approaches can address the diversity of learning styles and developmental stages of students. At all levels of understanding, students benefit from working with a variety of materials, tools and contexts when constructing meaning about new mathematical ideas. Meaningful student discussions also provide essential links among concrete, pictorial and symbolic representations of mathematics. More specifically, the goals for students in this course are to:

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

STUDENTS WILL.....

- Gain an *understanding* and *appreciation* of mathematics in society
- Exhibit a *positive attitude* toward mathematics
- Engage and *persevere* in problem solving
- *Contribute* to mathematical tasks
- Take *risks* in performing mathematical tasks
- Exhibit *curiosity* about mathematics

PROCESSES:

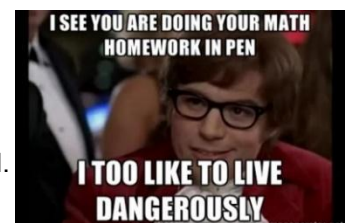
- Communication
- Connections
- Mental Math & Estimation
- Problem Solving
- Technology
- Visualization

Student Materials:

In order for students to be successful, they must have the proper materials.

For Math 10C, the following is required:

- Yourself – You need to be in class every day ready to **think, share, and learn**
- A positive attitude – **I can, I will, I am able to!**
- Personal Notebook (approximately 80-pages)
- Binder with two dividers and abundant lined loose-leaf paper
- Pencils, Pens, Erasers & Straight Edge. Coloured pencils are recommended.
- Graphing Calculator (**recommend TI-83 Plus or TI-84 Plus**)



COURSE CONTENT:

1. **Measurement** – Develop spatial sense and proportional reasoning.
2. **Geometry** – Develop spatial sense.
3. **Number and Logic** – Develop number sense and logical reasoning.
4. **Statistics** – Develop statistical reasoning.
5. **Relations and Functions** – Develop algebraic and graphical reasoning through the study of relations.
6. **Mathematics Research Project** – Develop an appreciation of the role of mathematics in society.

MATERIALS:

Graphing Calculator – MUST HAVE- (recommend TI-84 Plus or TI-83 Plus)

Principles of Mathematics 11 (Nelson)

Binder/paper, graph paper, pencils, pens, ruler, eraser

TIME LINE (Approximate and subject to change):

Introductions, Course Outline & Establish Procedures	1 class
Chapter 8: Proportional Reasoning	10 classes
Chapter 1: Inductive and Deductive Reasoning	7 classes
Chapter 2: Properties of Angles and Triangles	8 classes
Chapter 3: Acute Triangle Trigonometry	6 classes
Cumulative 1 Exam	2 classes
Chapter 4: Radicals	8 classes
Chapter 5: Statistical Reasoning	9 classes
Cumulative 2 Exam	2 classes
Chapter 6: Quadratic Functions	6 classes
Chapter 7: Quadratic Equations	9 classes
Project/Portfolio/Review/Extra Practice	10 classes
Final Exam	TBA

EVALUATION:

The following categories will be used to evaluate student progress and achievement throughout the course:

TERM MARK:

Daily Work	0%
Unit Exams	25%
Summative Assignments (In-Class Assignments/Projects/Quizzes/Portfolio)	25%
Cumulative Exams	25%
Final Exam	25%

Summative assignments may include in-class assignments, projects, quizzes, digital portfolios and/or reviews.

Daily work may consist of daily homework/practice, check-ups, problem solving, quick questions, and other observable skills.

Work must be shown to earn full marks on questions. A correct answer without showing supporting work will only be awarded partial marks. If the answers were already provided to students (ie. answer key), no marks will be awarded. On the other hand, a wrong answer that does include some correct work may also result in partial marks. It pays to show your work. Demonstrating the correct process is more important than getting the right answer.

It is **my goal** for you to experience success in math. I am here to help you every step of the way. **You** must first want yourself to be successful and believe that you can reach your goal.

The following 4 strategies will help yourself achieve your goal:

- Be an active listener and stay engaged during class
- Complete your work during class time
- Ask questions as you work in class when you don't understand a concept
- Do the assigned work on a daily basis

Note: I will be available to help students outside of class during TAG, Lunch, or after school, within reason, but priority will be given to students who consistently use their class time well and are still needing extra support.

CLASSROOM EXPECTATIONS

- Remember the **3 R's – Respect, Responsibility, & Right Attitude**. The students and teacher are expected to respect themselves, others, and their environment. We are expected to take responsibility for our choices, our words, our actions, and our lack of action. Finally, we are expected to display a positive attitude.
- **Students are expected to be on time and in class at all times.** It is the student's responsibility to catch up on any missed material. If you know you are going to be away, please make arrangements in advance for any missed work. If a student is absent, a parent/guardian should contact the school to notify the office and explain why the student is not in class (unless prior arrangements have been made). Students who frequently arrive without their supplies will be asked to get them and will also be marked late. Repeated tardiness (typically 5 or more lates) may result in a late contract request.

- **Late/Incomplete Assignments:** Students will be given class time to work on assigned work. That which is not completed in class will be considered homework. Students will be expected to submit their assigned work on the assigned due date (often the following day). If not completed, students may be asked to come in at TAG or Lunch. Summative assignments and projects are for marks and students will be expected to come in during TAG or lunch until assigned work is complete. If a student misses their detention and/or a pattern of not completing work becomes apparent, administration will be notified and a parent/guardian call will be made.
- **Students are expected to take responsibility for their progress and achievement.** This includes being prepared for each class with the necessary supplies. If you are having difficulty with a particular concept or section, it is recommended that you request extra help as soon as possible.
- **Electronic Devices:** Electronic devices must be put away during class time unless otherwise instructed by the teacher. As stated in the student agenda, it is not the responsibility of the teacher to prove whether a student is using their device inappropriately or not. In such cases, the action in question will be considered a violation of the electronic device policy. Students using electronic devices for non-instructional purposes during class time will be asked to hand the device over to the teacher for the duration of the class for the first offense. For any subsequent offenses, the teacher will turn the device over to the office. **Unless directed by the teacher, there should be no recording (photo and/or video) of the student, classmates, teacher or class in any form.**
- **If there is a concern** or you feel an error has been made with regards to your evaluation, please discuss the matter with me. It is important that you understand and are clear on what basis marks are given.
- **Other General Classroom Expectations:** Music devices are not permitted unless told otherwise. Water and “non-distracting” foods are allowed, but must be consumed responsibly. Students will not be permitted to leave during class to get food/drinks from their locker or the vending machine.

DEPARTMENT POLICIES

Exams

- It is YOUR responsibility to prepare for all your tests/quizzes.
- If a student is absent for any quizzes/exams, they will be expected to make arrangements with the teacher to write the exam/quiz in a timely manner.
- When students are absent the day of a test, they will be given a different version of the test AND may void their privilege to rewrite that particular test.
- Requests to not write the test on the planned day will not be honoured.
- Tests need to be completed in one sitting and students will be permitted double time.
- Teachers will not help with answering questions while a student is writing a test it is important to study and be prepared for the test on the day of the test.

Rewrite Policy

- If a student feels that their mark is not reflective of their ability, they will have the opportunity to re-write any unit test at the end of each semester.

However, the following conditions must be met:

- The test will be written outside of class time.
- The re-write mark will become the new mark whether it is higher or lower than the original mark.
- There will be NO rewrites on open book quizzes, cumulative exams, or final exam.

Academic Dishonesty (as taken from Student Handbook)

- Examples of academic dishonesty include, but are not limited to:
 - Taking someone else's work or ideas and passing them off as one's own including:
 - o copying from another student
 - o copying/downloading from the internet
 - o taking and/or sharing pictures of assessments
 - use of any Artificial Intelligence (A.I.) programs like, but not exclusive to, ChatGPT or Photomath
 - anything copied either in whole, in part (even if just brief parts like the main idea or one example or sentence), or in concept. This also includes the rewording of sentences or ideas to make it look like your own work
- Those who allow their work to be copied/share their work are aiding in the process and therefore JUST AS RESPONSIBLE AND LIABLE to be held to the same consequences as the student who handed in the plagiarized work.
- Depending on the severity of the violation, the offending student(s) may suffer any or all of these consequences in consultation with the teacher and/or Administrator's discretion.

Consequences include, but are not limited to:

- Redoing the assignment
- Parent contact
- A mark of zero on work submitted
- Detentions
- Referral to the administrator
- Phone must be handed in to the office - see cell phone procedure

CLASSROOM PROCEDURES

Quick Quiz/Checkups

Class may begin with a quick quiz or a checkup. The intention of this is to help you recall previous concepts and improve your understanding.

Entering the Classroom

Enter the room quickly and quietly. Begin working on Bellwork **or** wait in your desk patiently for me to begin the lesson. If you finish the Bellwork early...

- o check over work from previous day.
- o do extra questions.
- o ask questions about homework.
- o or, wait quietly for further instructions.

Arriving Late

A student who is not in the classroom when the second bell rings is considered late. Late students are not to disrupt the class. Enter the room quickly and quietly and find your seat. Too many lates = detention at lunch...& a late contract...

End of class

Class is over when the bell rings. Please do not pack up or leave class until the bell rings to signal class is over. Use your class time wisely...more time spent working during class = more concepts learned = less/no homework in the evenings.

Detentions

Inappropriate behaviour will not be tolerated. Please refer to your agenda. Detentions will be served at lunch time for inappropriate behaviour. If you skip your detention, you will not be allowed in class until you serve it.

Using the Washroom

The washroom may be used in emergencies. Please try to go before class. If you must use the washroom during class time, please ask at an appropriate time. You are not to go elsewhere (ie. other classrooms, hanging out in the hallway, the office...). If you are found somewhere else during your washroom break, you will lose the privilege of using the washroom during class. Please use the sign in/sign out sheet.

Assessment In Tray

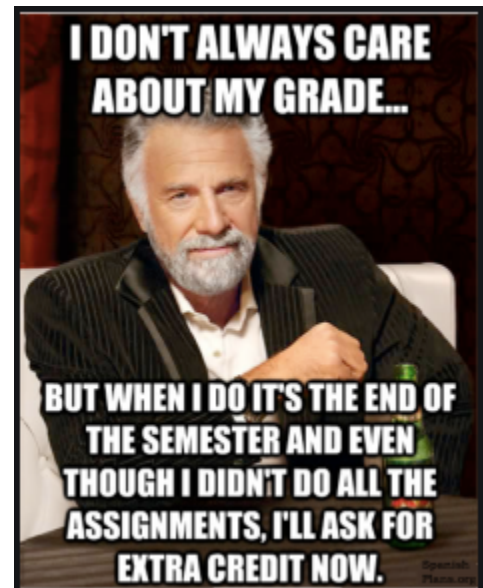
Place any assessments in the Math 20-2 Assessment In tray.

Assessment Out Tray

If you miss class and need copies of previous handouts or marked work check the Math 20-2 Assessment Out tray.

Extra Help

I expect you to use your class time wisely – be an active listener, ask questions, take notes, and work on assigned questions during class time. With 75-minute classes, that is a lot of time to work on math. The best time to get help is daily, as you are working on questions in class. Do not wait until the last minute to ask for help! For example, coming in the day before or day of a test and needing help on the entire unit is setting yourself up for failure. TAG is a perfect opportunity to get the help you need. If TAG isn't enough time, talk to me about getting help during another time as well.



Absences

When possible, let me know ahead of time that you are going to be absent. It is the student's responsibility to catch up on any missed work. If you are absent for a quiz/exam, you will write it **the day following your absence** during TAG, lunch, or after school. Please talk to me to arrange a time.

Communication

Please talk to me if you have any questions or concerns! You may always find me during the school day to chat (in class, TAG, lunch, before or after school) or you may email me seanmccconnell@prrd8.ca

Links & Resources

The following is a list of QR Codes and Links you may find useful for this semester.



Eagle Butte Website
<https://eaglebutte.myprps.com/>



ExamBank – Math 20-2
<http://alberta.exambank.com>
Login: pr
Password: exam



Quest A+ (Practice Tests)
<https://questaplus.alberta.ca/>



Khan Academy (free tutorial videos)
<https://www.khanacademy.org/>



The Grand Math Connection
<https://mathpqjq.com/>