

Math 8 Course Outline
2022 - 2023
Bichel / Martinek / Reynolds / Johanson / Dufrene

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

- use math to confidently solve problems
- communicate and reason mathematically
- appreciate and value math
- make connections between math and life
- become mathematically literate adults

In Math 8 we will explore the following areas of mathematics:

Unit 1: **Statistics and Probability**- September

a) Data Analysis

Chapter 1: Representing Data

- advantages and disadvantages of graphs, misrepresenting data, critiquing data presentation

b) Chance and Uncertainty

Chapter 11: Probability

- tree diagrams and tables, independent events, probability using fractions

Unit 2: **Numbers**- October - December

Chapter 4: Understanding Percents

- representing percents, converting between fraction, decimals and percents, percent of a number, combining percents

Chapter 2: Rate, Ratio and Percent

- two-term and three-term ratios, rates, proportions

Chapter 8: Integers

- multiplying and dividing integers, integer operations

Chapter 6: Fractions

- multiplying and dividing fractions by fractions & fractions by whole numbers, multiplying and dividing improper and mixed fractions

Unit 3: **Patterns and Relations**- January - February

Chapter 9: Linear Relations

- graphs of linear relations, patterns in a table of values, linear relations

Chapter 10: Solving Linear Equations

- modeling and solving one-step equations, modeling and solving two-step equations

Unit 4: **Space and Shape**- March – June

a) Measurement

Chapter 3: Pythagorean Relationship

- squares and square roots, **using and applying Pythagorean relationships**

Chapter 5: Surface Area

- views and nets of 3-D objects, surface area of prisms and cylinders

Chapter 7: Volume

- defining volume, volume of prisms and cylinders

b) Transformation

Chapter 12: Tessellations

- tessellations with regular and irregular polygons, translations, reflections and rotations, Escher-style tessellations

Evaluation:

Assessment for Learning

Assignments 0%

Assessment of Learning

Quizzes & Tests & Exams 100%

Daily assignments will be marked but **will not** have a weight. This is to provide the student with feedback as to how he or she is doing and to allow the student to learn from their mistakes before a quiz, test or exam is written. Incomplete homework will result in a homework mark (4 marks =Period 6) and the assignment will still need to be completed at a time chosen by the teacher such as at lunch hour, after school, etc.

Rewrites for quizzes and tests are a possibility but only after a student has devised a plan for success. This will include correcting the original quiz or test and also possibly preparing for the rewrite by attending a tutorial (lunch hour or after school) at the teacher’s discretion.

Student achievement of learning outcomes will be reported as follows:

Excelling	Consistently able to demonstrate student learning outcomes independently in a variety of settings.
Proficient	Frequently able to demonstrate student learning outcomes independently.
Satisfactory	Developing independence to be able to demonstrate student learning outcomes. Requires assistance.
Beginning	Beginning to grasp concepts with assistance
Limited	Insufficient evidence in demonstrating student learning outcomes.

Resources:

Math Links 8 McGraw-Hill Ryerson

Math Power 8 Addison Wesley

Math: Easy as 3.14 Roguemedi