**Math 8 Course Outline**
**2018-2019**
**BICHEL/ MASSEY/ MARTINEK/MCCLELLAND/REYNOLDS**

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      Roguemedia