First Name: Last Name:

Math 8 Course Outline

Teacher: Mr.Taylor

Big Ideas

- Use **numbers** to represent, describe, and compare the quantities of ratios, rates, and percents.
- Computational **fluency** and flexibility extend to operations with fractions.
- Discrete **linear relationships** can be represented in many connected ways and used to identify and make generalizations.
- The relationship between surface area and volume of **3D objects** can be used to describe, measure, and compare spatial relationships.
- Analyzing **data** by determining averages is one way to make sense of large data sets and enables us to compare and interpret.

Course Content

Unit 1 – Pythagorean Relationship
- Perfect squares and cubes
- Square roots and Pythagorean Theorem

Unit 2 – Integers
- Operations with integers (addition, subtraction, multiplication, division, order of operations)

Unit 3 – Fraction Operations
- Operations with fractions (addition, subtraction, multiplication, division, order of operations)

Unit 4 – Surface Area & Volume
- Surface area of regular solids (right prisms, triangular prism, and cylinder)
- Construction, views, and nets of 3D objects
- Volume of regular solids (right prisms, triangular prism, and cylinder)

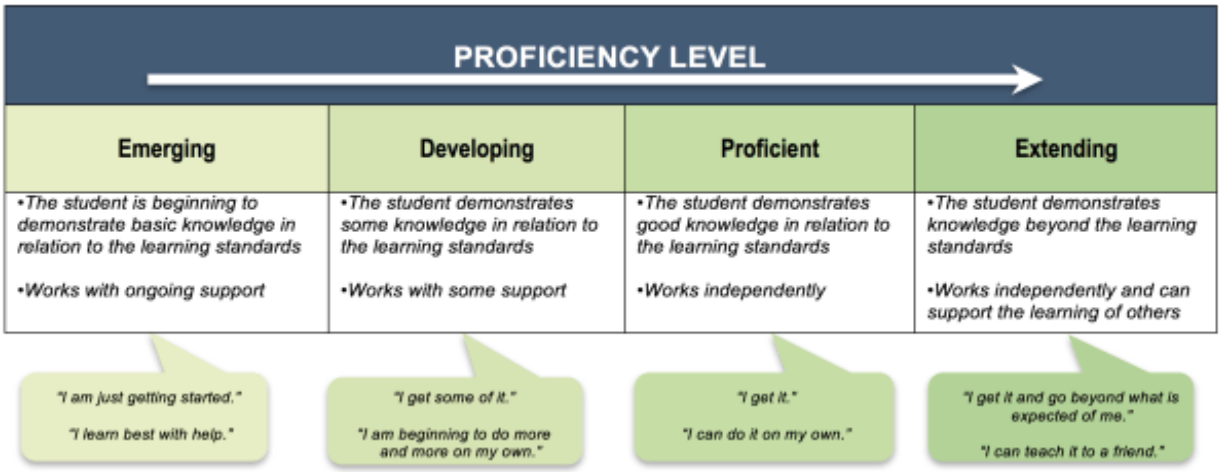
Unit 5 – Percent, Ratios & Rates
- Percents less than 1 and greater than 100 (decimal and fractional percent)
- Numerical proportional reasoning: rates, ratio, proportions, and percent
- Financial literacy – best buys (e.g., coupons, proportions, unit price, products, and services)

Unit 6 – Solving Equations & Graphing
- Expressions and equations, writing and evaluating using substitution
- Two-step equations with integer coefficients, constants, and solutions

Unit 7 – Probability & Central Tendency
- Theoretical probability with 2 independent events
- central tendency: mean, median, and mode

Evaluation

- Marks are posted regularly on the MyED BC portal.
- It is <u>your</u> responsibility to check the posted marks to make sure you are not missing any assignments or tests.
- If you have missed something, get the assignment or test completed as soon as possible.
- Students may rewrite tests/exams if they have done the work to improve their understanding of the material. The higher grade achieved will be used.



Practice Work

- Homework consists of any work that you were unable to complete during class time.
- Mark your practice work from the answers in the answer key. This is important!
- You must have a (✔) beside correct answers and an (X) beside incorrect answers.
- Try to correct questions you got wrong. Do <u>not</u> just write in the correct answer. If you can't figure it the answer, please ask for help.
- Incomplete work must be completed as soon as possible, please don't let yourself get behind!
- Your practice work should be handed in at the end of the unit.

Assignment Criteria

- Follow these criteria when completing Math assignments:

⚪ Work properly shown. ⚪ Answers clearly indicated (boxed or underlined).

⚪ Marked properly. ⚪ Corrected properly.

⚪ Pencil only. ⚪ Easy to read.

Cell Phone Use

- Put your phone or other electronic device away and take your earphones out at the start of class.
- You are not allowed to use your phone or electronic device during class time unless you have the teacher's permission, and should not be using instead of a proper scientific calculator

Supply Checklist

❒ Pencils – a mechanical pencil is highly recommended
❒ Eraser

- ❒ Binder - either a separate binder for Math or one binder for all your courses.
- ❒ Binder dividers – to separate different courses or sections.
- ❒ Lined paper
- ❒ Scientific Calculator – Must be scientific calculator, two-line display recommended.