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| **Mathematics 8 Course Outline 2020-21**  |
|  Ms. Hom Room 213 |
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|  www.rssmath.wixsite.com/math  |

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**Welcome to Mathematics 8!**

This year we are going to explore, learn, and engage in mathematical thinking that empowers us to make sense of our world. We will strive to go beyond the numbers and symbols by examining mathematics using different perspectives and by pursing our own individual interests and passions to deepen our mathematical foundation.

**Big Ideas**

Mathematics 8, students continue to develop their understanding of the following Big Ideas:

* Number represents, describes, and compares 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 generations.

* 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.

**Curricular Competencies**

Throughout the year students will be expected to demonstrate their learning by doing the following:

**Understanding**

**and Solving**

 **Reasoning and**

 **Analyzing**

Developing a variety of strategies to explain, clarify and justify mathematical understanding.

Using logic and reasoning

to analyze problems and

draw conclusions.

**Connecting and**

**Reflecting**

**Communicating**

**and Representing**

Apply and connect mathematical concepts to other disciplines and to

the real world.

Communicate in a variety of ways (concretely, pictorially, symbolically) to explain and clarify mathematical ideas.

**Content Competencies**

Math 8

By the end of the year, our goal is to learn the following:

* Perfect squares and cubes
* Square roots and cube roots
* Pythagorean Theorem
* Percents less than 1 and greater than 100 (decimal and fractional percents)
* Numerical proportional reasoning (rates, ratio, proportions, and percent)
* Operations with fractions (addition, subtraction, multiplication, division, and orders of operations)
* Discrete linear relations (extended to larger numbers, limited to integers)
* Expressions – writing and evaluating using substitution
* Two-step equations with integer coefficients, constants, and solutions
* Surface area and volume of regular solids, including triangular and other right prisms and cylinders)
* Construction, views, and nets of 3D objects
* Central tendency
* Theoretical probability with two independent events
* Financial literacy – best buys (e.g., coupons, proportions, unit price, products, and services)

Workbook: Theory and Problems for Mathematics 8, 3rd Edition, Mickelson (2009)

Resource: MathLinks 8 Pathways To Success, McGraw-Hill Education (2016)

 http://k12resources.nelson.com/math/9780176930875/student/index.html?isbn13=9780176930875

Required Supplies:



- 3-ring binder - pencils, erasers, pens, highlighters - ruler, scissors, glue

- calculator\* - lined and graph paper - colouring supplies

\*Scientific calculators are optional for select chapters.

Evaluation and Assessment:

Students will be given opportunities to show what they know through two types of assessment:

1) *Formative Assessment*: ongoing feedback to students throughout the year.

2*) Summative Assessment*: used to evaluate student learning at the end of an instructional unit.

The marks for each term will be determined as follows:

In-class Assignments, Homework, and Projects 25% Term 1 20% Term 3 30%

Quizzes (25%) and Tests (50%) 75% Term 2 30% Final Exam 20%

Class Expectations

1. Please refer to Classroom Expectations Sheet or Class Policies online.

2. **Attendance**: Parents will be informed of habitual lates and unexcused absences.

 Lates: Please arrive to class on time. Obtain a late slip from the office if you are late.

 Absences: Please have your parent/guardian call the school or provide a note to the office explaining the reason for

 your absence. It is your responsibility to make up all missed work. Homework from missed classes will be due the

 same date as the rest of the class.

Communication

I will be available in the morning after 8 am, during most lunch hours, and Tuesday/Thursday after school in my classroom during Math help. Appointments can also be made. Parents/Guardians – Please provide any information about your child that may help me better support them in their learning this year by contacting me at lhayashi@sd38.bc.ca.

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Student Signature Parent/Guardian Signature