Math 7 Course Outline
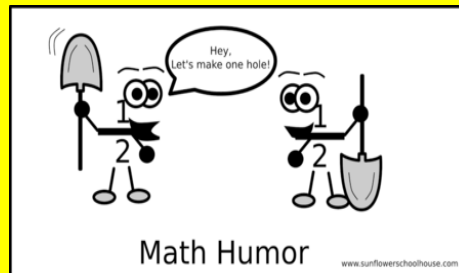## Teacher: Ms. Richmond

Textbook: **MathLinks 7** – *McGraw-Hill Ryerson*

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

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

Course Work: 80%
Final Exam: 20%

Math Humor

Unit	Subsections	Topics
I. Numbers	● Review of Number Concepts September	☐ Divisibility Rules ☐ Factors & Multiples ☐ Prime & Composite Numbers ☐ Greatest Common Factor (GCF) ☐ Least Common Multiple (LCM) ☐ Order of Operations (BEDMAS)
	● Integers September - October	☐ Introduction to Integers (+/-)
	● Rational Numbers October - November	☐ Fractions (+/-), mixed fractions ☐ Ratio and Rate ☐ Decimals ☐ Percents ☐ Compare & Order fractions, decimals & % on a number line.
	● *Exponents** *December*	☐ *Introduction to exponents**
Patterns	● Convert patterns to linear relations January	☐ Expression vs Equation (vocabulary & terms) ☐ Create a table of values from a relation ☐ Graphing rules ☐ Graph a table of values from a relation
	● Transformations February	☐ Cartesian plane & ordered pairs ☐ Translations ☐ Rotations ☐ Reflections

	● Equations February	☐ Preservation of equality ☐ Expression vs Equation ☐ One-step linear equations ☐ Two-step linear equations
Shape and Space	● Circles & Area March	☐ Radius, diameter, & circumference ☐ Area of other shapes
	● Geometry April	☐ Perpendicular line segments ☐ Parallel line segments ☐ Bisectors
Statistics	● Data Collections May	☐ Range ☐ Mean, Median, Mode ☐ Central Tendency ☐ Outliers and their effects ☐ Circle graphs
	● Probability May	☐ Probability as percent, decimal, fraction ☐ Independent events ☐ Probability rules ☐ Sample space for 2 independent events ☐ Probability Experiment (theoretical versus experimental probability)
Review	● Review all June	

You will need:

- A calculator – *with exponent and integer (+/-) functions*
- Pencil
- Paper
- textbook
- 5 subject coil notebook

Assessment:

- ❖ **Formative Assessment** (*Assessment for Learning*) – These types of assessments are to guide teaching and learning, and will not be used in the calculation of the final course mark
  - ➢ bell work
  - ➢ practice sheets
  - ➢ self corrections
  - ➢ group assignments

- ➢ project conferences with teacher
- ➢ vocabulary work included/embedded in lesson structures
- ➢ self-assessments using learning outcomes

❖ **Formative Assessment** (*Assessment as Learning*) – These types of assessments are also to guide teaching and learning, and will also not be used in the calculation of the final course mark
- ➢ diagnostic assessments
- ➢ practice quizzes
- ➢ practice tests as individuals or with group
- ➢ self-assessment

❖ **Summative Assessment** (*Assessment of Learning*) – These are the assessments for which the marks will be recorded and used to calculate the final course mark. The weight of each of these types of assessments on the final mark is indicated below:
- ➢ weekly/bi-weekly mini check-ins - 10%
- ➢ unit tests (4) - 30%
- ➢ projects - 40%
- ➢ final exam - 20%

Timeline	Topic	Rationale
September – December	Numbers	Numbers unit is the backbone of all math learning. Students focus towards mastery of the concepts of fractions as they are the basis of decimals, division, and later on equations and geometry and statistics.
January - February	Patterns	Teaching patterns and graphing usually occurs quickly. Gaining an understanding of the link between patterns, graphing, and equations is essential for math understandings in later courses.
March - April	Shape and Space	Measurement is a hands-on unit and involves a lot of manipulatives and interactives. Students usually enjoy this unit.
May	Statistics	Central tendency is a topic students usually understand quickly. Probability is a little more difficult, but if linked to previous learning with fractions students will gain the concepts quickly.
June	Review	All concepts will be reviewed for final exam.

Expectations:

1. Be in class on time with all necessary materials : ready to work

2. Students are expected to complete work on time. Homework is due at the beginning of the class, on the assigned date. Homework assignments should be copied from the board into your agenda.

3. Absences. When absent it is the students responsibility to catch up on work or tests missed.   Check with the teacher. If you know you are going to be absent, work can be

given ahead of time. Tests and quizzes that are missed are usually made up at lunch or after school.

4. Binders are to be kept neat, organized and dated. **Students are expected to show their work in answering questions.**

5. Assignments are to be handed in on time. All assignments must be completed.

6. If you are having any difficulty with the course please arrange a time for extra help. Do not let yourself slip behind. Help is available, please ask before it is time for the final at the end of the year.

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PRINCIPAL

"You can take a student's phone away, but you're supposed to give it back after class, not sell it on eBay."

Cell Phone Policy: There is a time and place for the use of cell phone technology in class. The teacher will inform the student when that time is. Cell phones will be parked during class time, with the exception of times that it is required to enhance learning as dictated by the teacher. It is not to be used in replacement of a calculator or a source of music.Thank-you for your support in this area!