GEOMETRY, MEASUREMENT AND FINANCE 10
COURSE OUTLINE: 2020 - 2021

TEACHERS: A. Pleadwell, K. Sears,

TEXT: MathWorks 10 (NB Edition)

TEAMS will be used as a platform for class and home learning.

COURSE DESCRIPTION:

This mandatory course follows completion of Introduction to High School Mathematics 9. Students will study systems of **measurement** (imperial/metric, conversions); **geometry** (2D/3D**); trigonometry** (primary trigonometric ratios, reference angles); and **finance** (spending money, earning money, saving money, financial services).

MATERIALS NEEDED:

- **Scientific calculator (Must have your own. No cell phones or IPods)**
- Pencils and an eraser
- Notebook/Binder to maintain daily notes and homework exercises

ATTENDANCE:

The pace of this course will be rapid; students will be expected to maintain excellent attendance. In the event of an absence, students are responsible for all missed work. If a student is absent for a test without a valid excuse, they will be given a mark of zero. It will be the responsibility of the student to present a satisfactory written excuse and arrange to write the test on his or her own time.

AT HOME:

In order to be successful, you will be expected to work on your "home" day.

DISTRIBUTION OF TOPICS:

Please see the back of this page.

EVALUATION:

Tests / Quizzes / Assignments	80%	
Cumulative Demonstration of Learning	20%	(May be divided into a halfway and end evaluation)

*** A mark of 60% is required to receive a passing grade.***

MATH HELP CENTRE:

To be determined.

☺ TO LEARN MATH IS TO DO MATH!!! ☺

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The curriculum document can be accessed here / Le programme d'études est accessible ici.

Required Outcomes	Remaining Outcomes
Note: A1 should be assessed through other outcomes. **N1:** Solve problems that involve unit pricing and currency exchange (focus on finding and using pricing and currency tools, not computation), using proportional reasoning. **N2:** Demonstrate an understanding of income, including: wages, salary, contracts, commission, piecework, and calculating gross pay and net pay. **N3:** Demonstrate an understanding of financial institution services used to access and manage finances. **N4:** Demonstrate an understanding of compound interest (Focus on understanding, not computation). **N5:** Demonstrate an understanding of credit options, including: credit cards, and loans. **G2:** Demonstrate an understanding of the Pythagorean theorem by: identifying situations that involve right triangles, verifying the formula, applying the formula, solving problems. **G3:** Demonstrate an understanding of primary trigonometric ratios (sine, cosine, tangent) by: applying similarity to right triangles, generalizing patterns from similar right triangles, applying the primary trigonometric ratios, and solving problems. **Note:** M1-M3: focus on relationships, estimation, and application of conversions by finding and using conversion tools. **M1:** Demonstrate an understanding of the Système International (SI) by describing the relationships of the units for length, area, volume, capacity, mass and temperature. **M2:** Demonstrate an understanding of the Imperial system by: describing the relationships of the units for length, area, volume, capacity, mass and temperature. **M3:** Solve problems, using SI and Imperial units, that involve linear measurement using estimation and measurement strategies. **M4:** Solve problems, using SI and Imperial systems, that involve area measurements of regular, composite and irregular 2-D shapes, including decimal and fractional measurements, and verify the solutions.	**A1:** Solve problems that require the manipulation and application of formulas related to: perimeter, area, volume, capacity, the Pythagorean theorem, primary trigonometric ratios, income. currency exchange, interest and finance charges. **G1:** Analyze puzzles and games that involve spatial reasoning, using problem-solving strategies. **G4:** Solve problems that involve angle relationships between parallel, perpendicular and transversal lines. **G5:** Demonstrate an understanding of angles, including acute, right, obtuse, straight and reflex, by: drawing, replicating and constructing, bisecting, and solving problems. **M5:** Solve problems, using SI and Imperial units, that involve the surface area and volume of 3-D objects, including right cones, right cylinders, right prisms, right pyramids, and spheres.

Note: Outcomes will not necessarily be covered in this order.