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2018 – 2019

 Grade 9, Applied

Foundations of Mathematics

 MFM1P1

 **Evaluation Profile & Outline**

## Earl Haig

SecondarySchool

**Course Description/Rationale/Overview:**

This course enables students to develop an understanding of mathematical concepts related to introductory algebra, proportional reasoning, and measurement and geometry through investigation, the effective use of technology, and hands-on activities. Students will investigate real-life examples to develop various representations. They will also explore certain relationships that emerge from the measurement of three-dimensional figures and two-dimensional shapes. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

**Class Requirements:**

Calculator (scientific, not graphing)

3-ring binder

Pen / Pencil / Ruler

**Course Requirements/Department Policies**

Arrangements for missed test must be made in advance (i.e. in case of absence due to field trips, athletics competitions, rehearsals, etc.). In case of illness, the teacher must be contacted on the day of the test by phone at 395-3210 ext. 20080. The students should be prepared to write the test on the first day back at school.

Late assignments must be accompanied with a note signed by a parent or guardian stating the reason for late submission. The note must list the due date of the assignment and the actual date of submission.

**Marks will be deducted for late assignments, up to and including the full value of the assignment.** [Growing Success: Assessment, Evaluation, and Reporting in Ontario Schools, Ministry of Ontario, 2010, pg. 43.]

#### Assessment Strategies

Diagnostic Quizzes Homework Check

Diagnostic Tests Group Work

In-class Assignments Technology Based Tasks

Peer Assessments Observations

Class Participation/Interaction

Conferences/Interviews

#### Extra Help Availability

Monday to Thursday after school through Peer Tutoring program.

All extra help sessions are held in room 248.

Students should make appointments with their teachers to get extra help.

**Learning Skills:**

Responsibility; Initiative; Organization;

Independent Work;

Collaboration;

Self-regulation

**Curriculum strands:**

Number Sense & Algebra

Linear Relations

Measurement & Geometry

Achievement Categories and Weighting

Knowledge & Understanding 25%

Application 20%

Thinking 10%

Communication 15%

**FINAL MARK**

Year’s Work: 70%

Final Summative Evaluation

 Summative Projects 20 %

 EQAO 10 %

 30 %

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**Unit 1: Number Sense**  **Unit 8: Geometry**

Adding and Subtracting Integers Angles in Triangles and Quadrilaterals

Multiplying and Dividing Integers Exterior Angles in a Triangle

Exponents Parallel Lines

Order of Operations Interior and Exterior Angles in a Polygon

**Unit 2: Proportional Reasoning**

Equivalent Ratios

Ratio and Proportions

Unit Rate

Using Algebra to Solve a Proportion

Percent as a Ratio

**Unit 3: Polynomials**

Like and Unlike Terms

Adding and Subtracting Polynomials

Multiplying a Monomial and a Polynomial

Expanding and Simplifying Polynomial Expressions

**Unit 4: Modeling with Equations**

Solving One and Two Step Equations

Solving Multi-step Equations

Modeling with a Formula

Modeling with Algebra

**Unit 5: Graphing Linear Relations**

Plotting Points on the Cartesian Plane

Slope

Distance Time Graphs

Applying the Slope Formula

Equation of a line

**Unit 6: Linear and Non-linear Relations**

Linear vs. Non-linear Relations

Direct and Partial Variation

Two Linear Relations

Scatter Plots

Line of Best Fit

**Unit 7: Measurement**

Measuring Right Angles (Pythagorean Theorem)

Measuring Perimeter and Area

Area of Composite Figures

Perimeter of Composite Figures

Volume

Maximum Area for a given Perimeter

Minimum Perimeter for a given Area

**Outline**

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