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| ***RIDEAU HIGH SCHOOL***  **Course Name*:*** Grade 9 Applied Mathematics **Credit Value**: 1 |
| **Course Code:** MFM1P **Prerequisite:** None |
| **Teacher:** Ms. Thangaraj **Start Date:**  February 2, 2015 |
| **Department:** MATH **Head of Department:** Ms. Thangaraj |

**Course Description:**

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 of linear relations, and will determine the connections between the 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.

**OVERALL EXPECTATIONS OF MFM1P:**

**A: Number Sense and Algebra**

* Solve problems involving proportional reasoning
* Simplify numerical and polynomial expressions in one variable, and solve simple first-degree equations

**B: Linear Relations**

* apply data-management techniques to investigate relationships between two variables
* determine the characteristics of linear relations
* demonstrate an understanding of constant rate of change and its connection to linear relations
* connect various representations of a linear relation, and solve problems using the representations

**C: Measurement and Geometry**

* determine, through investigation, the optimal values of various measurements of rectangles
* solve problems involving the measurements of two-dimensional shapes and the volumes of three-dimensional figures
* determine, through investigation facilitated by dynamic geometry software, geometric properties and relationships involving two-dimensional shapes, and apply the results to solving problems

**Assessment and Evaluation:**

Teachers use a variety **of assessment** strategies to elicit information about student learning. These strategies should be triangulated to include observation, student-teacher conversations, and student products. Teachers can gather information about learning by:

• designing tasks that provide students with a variety of ways to demonstrate their learning;

• observing students as they perform tasks;

• posing questions to help students make their thinking explicit;

• engineering classroom and small-group conversations that encourage students to articulate what they are thinking and further develop their thinking.

Teachers then use the information gathered to adjust instruction and provide feedback

Growing Success, p.34

Evidence of student achievement **for evaluation** is collected over time from three different sources – observations, conversations, and student products. Using multiple sources of evidence increases the reliability and validity of the evaluation of student learning. “Student products” may be in the form of tests or exams and/or assignments for evaluation. Assignments for evaluation may include rich performance tasks, demonstrations, projects, and/or tests. Growing Success p. 39

The final grade will be determined as follows:

* Term Work: 70%
* Culminating Activities: 30%

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| **Learning Skills:**  The separate evaluation and reporting of the learning skills in the following six areas reflects their critical role in students’ achievement of the curriculum expectations. Students will be assessed continually on the following learning skills: | | | | | |
| ***Works Independently*** | ***Teamwork*** | ***Organization*** | ***Work Habits/Homework*** | ***Initiative*** | ***Self-Regulation*** |
| accepts responsibility for completing tasks, follows instructions, completes assignments on time and with care, uses time effectively | works willingly and cooperatively with others, is sensitive to the needs of others, takes responsibility in sharing the work, shows respect for others ideas and opinions | organizes work, creates a plan to complete tasks, demonstrates ability to organize and manage information | puts forth consistent effort, completes homework on time and with care, uses time effectively, perseveres with complex tasks that require effort | responds to challenges and takes risks, seeks out opportunities for learning, identifies problems to solve, seeks additional information | sets own individual goals and monitors progress towards achieving them |

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| Extra Help:  ***The staff of Rideau High School is committed to the success of all students.*** Students are strongly encouraged to seek extra help from the teacher both in and out of the classroom. |
| Communication:  Please feel free to contact me at the school, 613-746 - 8196, if you have any questions or concerns. My voicemail extension is 240, and my email address is Elizabeth.thangaraj@ocdsb.ca. |