

**DATE: SEPTEMBER 2007****SECONDARY SCHOOL: TCDSB SCHOOL****DEPARTMENT HEAD: Mr. Michael Daoust****TEACHER: Mr. M. DeThomasis, Mr. L. Martelli****DEPARTMENT: Mathematics**

<b>CURRICULUM POLICY DOCUMENT</b>			
<b>COURSE TITLE</b>	Foundations of Mathematics	<b>COURSE CODE</b>	MFM – 1P1
<b>PRE-REQUISITE</b>	N/A	<b>GRADE &amp; TYPE</b>	9 Applied
<b>FULL YEAR / SEMESTER</b>	Full Year	<b>CREDIT VALUE</b>	1

**COURSE DESCRIPTION (AS SPECIFIED IN MINISTRY OF EDUCATION POLICY DOCUMENT)**

This course enables students to develop mathematical ideas and methods through the exploration of applications, the effective use of technology, and extended experiences with hands-on activities. Students will investigate relationships of straight lines in analytic geometry, solve problems involving the measurement of 3-dimensional objects and 2-dimensional figures, and apply key numeric and algebraic skills in problem solving. Students will also have opportunities to consolidate core skills and deepen their understanding of key mathematical concepts.

**LISTED IN ORDER OF INSTRUCTIONAL DELIVERY**

<b>STRAND / UNIT TITLES</b>	<b>HOURS</b>	<b>OVERALL EXPECTATIONS / UNIT DESCRIPTION</b>
EXPLORING RELATIONSHIPS IN GEOMETRY	35	In this unit, students and teachers will explore and model relationships in measurement and geometry numerically and graphically in the context of optimization problems. This is an extension of the study of non-linear relationships introduced in Unit 1. Students will also explore geometric relationships using dynamic geometry software.
Exploring Relationships	25	In this unit, students and teachers will begin to explore both linear and non-linear relationships arising from meaningful problems. Students will develop numeric and graphic and skills as needed in the context of the activity. Various forms of assessment are built into all the activities.
MODELLING LINEAR RELATIONS	35	In this unit, students and teachers will explore numerical, graphical and algebraic models (tables, graphs, equations) of linear relationships arising from meaningful problems. Students will develop numeric, graphic and algebraic skills as needed. Various forms of assessment are built into all the activities.

MAKING CONNECTIONS	15	In this unit, students will engage in a few, large assessment activities. These activities will capture the essence of the grade 9 course. One activity will serve as a culminating assessment task, which will be used in conjunction with a final exam as a final assessment.
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STUDENT EVALUATION CRITERIA				
TERM – 70%		FINAL – 30%		FINAL REPORT CARD GRADE CALCULATION – 100%
$10 \leq$ RELATIVE EMPHASIS / WEIGHTING $\leq 40$		RELATIVE EMPHASIS / WEIGHTING		TERM TOTAL + FINAL TOTAL = REPORT CARD MARK
KNOWLEDGE/UNDERSTANDING	25			
INQUIRY/THINKING	10			
COMMUNICATION	10			
APPLICATION	25			
EQAO	5	Exam	25	
TERM TOTAL	<b>75</b>	FINAL TOTAL	<b>25</b>	

ASSESSMENT FORMAT USED					
WRITTEN		PERFORMANCE		OTHER	
e.g. Slogan		e.g. Manipulative Skills		e.g. Teacher Observation	X
Short Answer	x	Extended Investigations		Interviews	
Open/Free Response		Projects	X	Portfolios	
Essay/Journal		Concept Mapping		Skills Checklist	
Papers/Reports	X	Venn Diagrams			
Multiple Choice	x	Presentations			

RESOURCES (EXAMPLES PROVIDED)	
TEXTBOOK	Mathematics 9 – Applying The Concepts
STUDENT MATERIALS	Student Workbook
EXCURSIONS	
COMPUTER USE	Geometer Sketch-Pad
COURSE RELATED WEBSITES	

POLICIES & PROCEDURES (EXAMPLES PROVIDED)	
PLAGIARISM	n/a
LATE ASSIGNMENTS	Assignments will be accepted up to the date when marked assignments are returned.
MISSED WORK	Students will have the opportunity to complete missed work on their own time (after school or in AM prior to commencement of classes).
ABSENCES	When absent, students are responsible to catch-up on missed work

	and assignments.
<b>HOMEWORK</b>	Homework is assigned on a regular base and must be completed. Students are expected to do on average 20 – 30 minutes per day.
<b>TEACHER CONTACTS</b>	Mid-term reports are issued in November and April Early warning letters for failing students are issued in early October and early March. Letters of concern may be sent home at any time.
<b>EXTRA HELP</b>	Extra help is always available upon request, either at 8:30 AM or after school. A math tutorial service is available on Wednesdays and Fridays during the lunch periods in room 303.
<b>REPORTING DATES</b>	Midterm reports are issued in mid November and final exams are written towards the end of January

<b>LEARNING SKILLS CRITERIA</b>	
<b>IN EACH REPORTING PERIOD, REPORT ON THE QUALITY OF THE LEARNING SKILLS DEMONSTRATED BY THE STUDENT IN EACH OF THE CATEGORIES IDENTIFIED ON THE REPORT CARD USING THE FOLLOWING LETTER SYMBOLS.</b>	
<b>E–EXCELLENT</b>	<b>G–GOOD</b>
<b>S–SATISFACTORY</b>	<b>N–NEEDS IMPROVEMENT</b>
<b>SKILL: WORKS INDEPENDENTLY</b>	
<b>INDICATORS:</b>	
<ul style="list-style-type: none"> <li>• accomplishes tasks independently</li> <li>• accepts responsibility for completing tasks</li> <li>• follows instructions</li> <li>• regularly completes assignments on time and with care</li> <li>• demonstrates self-direction in learning</li> <li>• independently selects, evaluates, and uses appropriate learning materials, resources, and activities</li> </ul>	<ul style="list-style-type: none"> <li>• demonstrates persistence in bringing tasks to completion</li> <li>• uses time effectively</li> <li>• uses prior knowledge and experience to solve problems and make decisions</li> <li>• reflects on learning experiences</li> </ul>
<b>SKILL: ORGANIZATION</b>	
<b>INDICATORS:</b>	
<ul style="list-style-type: none"> <li>• organizes work when faced with a number of tasks</li> <li>• devises and follows a coherent plan to complete a task</li> <li>• follows specific steps to reach goals or to make improvements</li> <li>• revises steps and strategies when necessary to achieve a goal</li> </ul>	<ul style="list-style-type: none"> <li>• manages and uses time effectively and creatively</li> <li>• demonstrates ability to organize and manage information</li> <li>• follows an effective process for inquiry and research</li> <li>• uses appropriate information technologies to organize information and tasks</li> </ul>
<b>SKILL: INITIATIVE</b>	
<b>INDICATORS:</b>	
<ul style="list-style-type: none"> <li>• seeks out new opportunities for learning</li> <li>• responds to challenges and takes risks</li> <li>• demonstrates interest and curiosity about concepts, objects, events, and resources</li> <li>• seeks necessary and additional information in print, electronic, and media resources</li> <li>• identifies problems to solve, conducts investigations, and generates questions for further inquiry</li> <li>• requires little prompting to complete a task, displaying self-motivation and self-direction</li> </ul>	<ul style="list-style-type: none"> <li>• approaches new learning situations with confidence and a positive attitude</li> <li>• develops original ideas and devises innovative procedures</li> <li>• attempts a variety of learning activities</li> <li>• seeks assistance when needed</li> <li>• uses information technologies in creative ways to improve learning for self or others</li> </ul>
<b>SKILL: TEAMWORK</b>	
<b>INDICATORS:</b>	
<ul style="list-style-type: none"> <li>• works willingly and cooperatively with others</li> <li>• shares resources, materials, and equipment with others</li> <li>• responds and is sensitive to the needs and welfare of others</li> <li>• solves problems collaboratively</li> <li>• accepts various roles, including leadership roles</li> <li>• takes responsibility for his or her own share of the work to be</li> </ul>	<ul style="list-style-type: none"> <li>• questions the ideas of the group to seek clarification, test thinking, or reach agreement</li> <li>• shows respect for the ideas and opinions of others in the group or class</li> <li>• listens attentively, without interrupting</li> <li>• in discussions, paraphrases points of view and asks questions</li> </ul>

done <ul style="list-style-type: none"> <li>• works to help achieve the goals of the group or the class</li> <li>• helps to motivate others, encouraging them to participate</li> <li>• contributes information and ideas to solve problems and make decisions</li> </ul>	to clarify meaning and promote understanding <ul style="list-style-type: none"> <li>• recognizes the contribution of group members by means of encouragement, support, or praise</li> <li>• seeks consensus and negotiates agreement before making decisions</li> </ul>
<b>SKILL: WORK HABITS/HOMEWORK</b> <b>INDICATORS:</b>	
<ul style="list-style-type: none"> <li>• completes homework on time and with care</li> <li>• puts forth consistent effort</li> <li>• follows directions</li> <li>• shows attention to detail</li> <li>• uses materials and equipment effectively</li> </ul>	<ul style="list-style-type: none"> <li>• begins work promptly and uses time effectively</li> <li>• perseveres with complex projects that require sustained effort</li> <li>• applies effective study practices</li> </ul>

**NOTE:** The above chart is a reformatting of the skills identified in the Ministry of Education's *Guide to the Provincial Report Card, Grades 9 – 12 : Appendix C: pages 27 to 29*.