



CARDINAL LEGER CATHOLIC SECONDARY SCHOOL

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We believe that each one, created in the image and likeness of God, is called by name into the Dufferin-Peel community to realize the Ontario Catholic School Graduate Expectations to the fullest extent possible as we all journey from the early years to vocation.

COURSE OUTLINE

Department:	Mathematics
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Course:	Foundations of Math 10
Course Code:	MFM2P1

Common Course Calendar	Course Description:
	<p>This course enables students to consolidate their understanding of key mathematical concepts through hands-on activities and to extend their problem solving experiences in a variety of applications. Students will solve problems using proportional reasoning and the trigonometry of right triangles; investigate applications of piecewise linear functions; solve and apply systems of linear equations; and solve problems involving quadratic functions. The effective use of technology in learning and in solving problems will be a focus of this course.</p> <p>This course will help students address the Ontario Catholic School Graduate Expectation that they adopt a holistic approach to life by integrating learning from various subject areas and experience.</p>

Ministry/ICE Curriculum Documents	Strand/Unit Title	Corresponding Catholic Graduate Expectation Indicators for each Strand/Unit
	<p>Quadratic Relations of the form $y = ax^2 + bx + c$ By the end of this course, students will:</p> <ul style="list-style-type: none"> • manipulate algebraic expressions, as needed to understand quadratic relations; • identify characteristics of quadratic relations; • solve problems by interpreting graphs of quadratic relations. 	<p>- applies effective decision-making, problem-solving, time and resource management skills</p>

	<p>Modelling Linear Relations By the end of this course, students will:</p> <ul style="list-style-type: none"> • manipulate and solve algebraic equations, as needed to solve problems; • graph a line and write the equation of a line from given information; • solve systems of two linear equations, and solve related problems that arise from realistic situations. <p>Measurement and Trigonometry By the end of this course, students will:</p> <ul style="list-style-type: none"> • use their knowledge of ratio and proportion to investigate similar triangles and solve problems related to similarity; • solve problems involving right triangles, using the primary trigonometric ratios and the Pythagorean theorem; • solve problems involving the surface areas and volumes of three-dimensional figures, and use the imperial and metric systems of measurement. 	<p>- integrates learning from various subject areas and experiences</p> <p>- thinks reflectively and creatively to evaluate situations and solve problems</p>
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Assessment and Evaluation:

Category Weightings	Weight %
Knowledge/Understanding	30
Thinking	20
Application	30
Communication	20

Final Summative Assessments	Overall Weighting
Term Work	70%
Course Culminating	10%
Exam	20%

Learning Skills and Work Habits

E= Excellent G=Good S=Satisfactory N= Needs Improvement

Responsibility	<ul style="list-style-type: none"> • Fulfills responsibility and commitments. • Takes responsibility for and manages own behavior.
Organization	<ul style="list-style-type: none"> • Devises and follows a plan and process for completing tasks. • Establishes priorities and manages time
Independent Work	<ul style="list-style-type: none"> • Independently monitors, assesses, and revises plans to complete tasks and meet goals. • Uses class time to complete tasks.
Collaboration	<ul style="list-style-type: none"> • Accepts various roles and an equitable share of work in a group. • Builds healthy peer-to-peer relationships.
Initiative	<ul style="list-style-type: none"> • Looks for and acts on new ideas and opportunities. • Approaches new tasks with a positive attitude.
Self-Regulation	<ul style="list-style-type: none"> • Sets own goals and monitors progress towards achieving them. • Seeks clarification or assistance when needed.