THAMES VALLEY DISTRICT SCHOOL BOARD

London Central Secondary School

COURSE OVERVIEW 2019-2020

Course Name**:**	**Principles of Mathematics Grade 10**	**Course Code:**	**MPM 2D**
Course Type:	**Grade 10 Academic**	**Credit Value:**	**1.0**
Teachers(s):	**Mr. Bannon, Mr. Estabrooks, Mr. Kenagy, Ms MacDonald**		

Course Description:

This course enables students to broaden their understanding of relationships and extend their problem-solving and algebraic skills through investigation, the effective use of technology, and abstract reasoning. Students will explore quadratic relationships and their applications; solve and apply linear systems; verify properties of geometric figures using analytic geometry; and investigate the trigonometry of right and acute triangles. Students will reason mathematically and communicate their thinking as they solve multi-step problems.
http://www.edu.gov.on.ca/eng/curriculum/secondary/mathtr9curr.pdf
Prerequisite: Mathematics, Grade 9, Academic

Course Overall Expectations:

Strand	Overall Expectations
Quadratic Relations of the Form $y = ax^2 + bx + c$	determine the basic properties of quadratic relations;
	relate transformations of the graph of $y = x2$ to the algebraic representation $y = a(x - h)^2 + k$;
	solve quadratic equations and interpret the solutions with respect to the corresponding relations;
	solve problems involving quadratic relations.
Analytic Geometry	model and solve problems involving the intersection of two straight lines;
	solve problems using analytic geometry involving properties of lines and line segments;
	verify geometric properties of triangles and quadrilaterals, using analytic geometry.
Trigonometry	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 acute triangles, using the sine law and the cosine law.

Assessment and Evaluation Strategies:

The purpose of assessment and evaluation is to improve student learning. Assessment and evaluation is based on the provincial curriculum expectations and the achievement levels outlined in the curriculum document. In order to ensure that assessment and evaluation are valid and reliable, and that they lead to the improvement of student learning, teachers use a variety of strategies throughout the course, including: providing students with feedback about their work (known as assessment for learning), helping to set learning goals and monitor their own progress (known as assessment as learning), and evaluation and reporting of progress in the form of grades and marks (known as assessment of learning).

Unit Overview	Assessment and Evaluation Methods (May include major evaluations)
Linear Systems	- **quizzes, performance tasks, problem sets, assignments, projects, unit tests, thinking project**
Quadratic Relations - Part 1	
Quadratic Relations - Part 2	
Quadratic Relations - Part 3	
Analytic Geometry - Part 1	
Analytic Geometry - Part 2	
Trigonometry - Part 1	
Trigonometry - Part 2	
Course Culminating Activities- by strand	**one for each strand**
Final Exam	**Midterm, Final**

Assessment and Evaluation Categories and Weights:

Achievement Chart Categories		Evaluation/Weight of Marks	
Achievement Category	**Percentage**	**Evaluation**	**Percentage**
Knowledge/Understanding	**35**	**Term Evaluation**	**65**
Thinking/Inquiry	**15**	**Final Evaluation**	
Communication	**15**	• **Thinking Project**	**5**
Application	**35**	• **Exam**	**10, 20**

Learning Skills and Work Habits Assessment:

The development of learning skills and work habits is an integral part of student learning. These skills are:

- **Responsibility**
- **Organization**
- **Independent Work**
- **Collaboration**
- **Initiative**
- **Self-Regulation**

Learning skills and work habits influence student achievement and are included as a formal part of the assessment and evaluation process. Learning skills and work habits will be assessed through a variety of teacher strategies. (e.g. observation, student /teacher conference, self-reflection, checklists, exit cards, etc.) These important learning skills and work habits will be formally reported on the Provincial Report Card according to the following scale: E- Excellent, G- Good, S- Satisfactory, N- Needs Improvement.

Academic Dishonesty - Cheating and Plagiarism:

Learning tasks that students complete as well as the assignments, tests and exams that students submit for evaluation must be their own work. Cheating and plagiarism is a serious offence that will not be condoned. Academic consequences will result.

Test Policy:

According to the Growing Success Document (2010) a student MUST fulfill his/her responsibilities and commitments within the learning environment, including completing all types of assessments according to agreed-upon timelines.

It is the math department expectation that all students will write tests on the date set out by the classroom teacher. In the event of an illness, emergency, or other significant situation, an exception can be made, provided sufficient documentation is given to the classroom teacher. Please note that parental approval is not a legitimate reason for missing an evaluation. If an acceptable absence is known prior to the assessment date, alternate arrangements must be made with the classroom teacher in advance.

If this expectation is not met, the evaluation will be completed but may not contribute to the student's course marks.

Late and Missed Assignments - Student Roles and Responsibilities

Students are expected to:

- be responsible for providing evidence of their achievement of the overall expectations within the time frame specified by the teacher, and in a form approved by the teacher;
- understand that there will be consequences for not completing assignments for evaluation and/or for submitting those assignments late;
- use class time productively;
- in extenuating circumstances, request an extension from the teacher before the due date.

Mark deductions for late and missed assignments may apply to major assignments only.

References: *TVDSB Assessment & Evaluation Policy*, September 2011; *Growing Success - Assessment and Evaluation, and Reporting in Ontario Schools*, 2010.
Student Planner and School Web site