



991 St. Clair Ave. West  
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Website: <http://schools.tdsb.on.ca/oakwoodci/>

**Course of Study: Principles of Mathematics**

<b>Academic Year:</b> 2019-2020		<b>Teacher Name:</b> S. Burtch / K. Doran	
<b>Department:</b> Mathematics		<b>Department Head:</b> S. Burtch	
<b>Date developed:</b> June 2009		<b>Revised:</b> June 2018	
<b>Course Title</b>	Principles of Mathematics	<b>Course Code</b>	MPM1D
<b>Prerequisite</b>		<b>Grade</b>	9
<b>Level</b>	Academic	<b>Credit Value</b>	1.0

**Course Description**

**Ontario Ministry of Education Document:**

This course enables students to develop an understanding of mathematical concepts related to algebra, analytic geometry, and measurement and geometry through investigation, the effective use of technology, and abstract reasoning. Students will investigate relationships, which they will then generalize as equations of lines, and will determine the connections between different representations of a linear relation. They will also explore relationships that emerge from the measurement of three-dimensional figures and two-dimensional shapes. Students will reason mathematically and communicate their thinking as they solve multi-step problems.

**Textbook:** Principles of Mathematics 9, Nelson

### Instructional Strands/Units

<b>Strand/Unit Titles</b>	<b>Approx. Time Spent</b>	<b>Overall Expectations/Unit Description</b>
Measurement and Geometry	2 Months	<ul style="list-style-type: none"> <li>• determine, through investigation, the optimal values of various measurements;</li> <li>• solve problems involving the measurements of two-dimensional shapes and the surface areas and volumes of three-dimensional figures;</li> <li>• verify, through investigation facilitated by dynamic geometry software, geometric properties and relationships involving two-dimensional shapes, and apply the results to solving problems.</li> </ul>
Number Sense and Algebra	2 Months	<ul style="list-style-type: none"> <li>• demonstrate an understanding of the exponent rules of multiplication and division, and apply them to simplify expressions;</li> <li>• manipulate numerical and polynomial expressions, and solve first-degree equations.</li> </ul>
Linear Relations	2 Months	<ul style="list-style-type: none"> <li>• apply data-management techniques to investigate relationships between two variables;</li> <li>• demonstrate an understanding of the characteristics of a linear relation;</li> <li>• connect various representations of a linear relation.</li> </ul>
Analytic Geometry	2 Months	<ul style="list-style-type: none"> <li>• determine the relationship between the form of an equation and the shape of its graph with respect to linearity and non-linearity;</li> <li>• determine, through investigation, the properties of the slope and y-intercept of a linear relation;</li> <li>• solve problems involving linear relations.</li> </ul>

### Student Evaluation Criteria

<b>Term Work</b>		<b>Culminating Activities &amp; Exam</b>	
<b>Categories</b>			
Knowledge/Understanding (K/U)	15 – 20 %	EQAO	10 %
Inquiry/Thinking (T/I)	15 – 20 %	Culminating Activities	20 %
Communication (C)	15 – 20 %		
Application (A)	15 – 20 %		
<b>Term Total 70%</b>		<b>Culminating &amp; Exam Total 30%</b>	

	1 <sup>st</sup> Report	2 <sup>nd</sup> Report	Interim Report	Final Report
<b>Report Cards</b>	Nov 20 <sup>th</sup>	Feb 7 <sup>th</sup>	April 16 <sup>th</sup>	June 25 <sup>th</sup>
<b>Parent/Teacher Interviews</b>	Nov 28 <sup>th</sup>	Feb 13 <sup>th</sup>		

### **Assessment of Learning Skills**

*The 6 learning skills: Responsibility, Organization, Independent Work, Collaboration, Initiative and Self Regulation, will be assessed using a variety of techniques including, but not limited to, homework checks, group work/research, class involvement, cooperative activities and independent work*

### **Assessment and Evaluation Tools**

<b><i>Knowledge/Understanding</i></b>	<b><i>Thinking/Inquiry and Application</i></b>	<b><i>Communication</i></b>
Quizzes	Investigations	Discussions
Tests	Projects	Participation
In-Class Assignments	Problem Solving	Written and oral communication of mathematical ideas
Homework	Real-World Applications	
	Explorations	
	Word Problems	

### **Communication**

<b><i>Parents</i></b>	<b><i>Contact the Math department at 393-1780 ext. 20105</i></b>
<b><i>Students</i></b>	<b><i>Contact your teacher in person</i></b>
<b><i>Extra help</i></b>	<b><i>By arrangement with your teacher</i></b>
<b><i>School Website</i></b>	<b><i><a href="http://schools.tdsb.on.ca/OakwoodCI">http://schools.tdsb.on.ca/OakwoodCI</a></i></b>

## **Department Policies**

### **Success Plan**

1. Come to class every day, on time, with a pencil, eraser, ruler , scientific calculator and binder.
2. Listen to, and participate in, the lesson.
3. Complete the work assigned in class and practice by completing homework.
4. Ask for help when you need it.
5. Help your classmates.
6. Complete all evaluations to the best of your ability.

### **Textbooks**

***Students will be issued a textbook for use during the school year and are expected to bring it to class each period. Replacement cost \$80***

### **Evaluation**

***Evaluation takes a balanced approach (see above) to the 4 categories of achievement (K/U, T/I, C, A) and blends these so that most evaluation tasks include 2 or more of the categories. For purposes of simplification, the final mark will be calculated as follows:***

<b><i>Course Work, including: Tests, Quizzes, Assignments, etc. (K/U, C, A)</i></b>	<b><i>70 %</i></b>
<b><i>Culminating Activities (incl. EQAO Final Exam) (K/U, T/I, C, A)</i></b>	<b><i>30 %</i></b>

***Teachers will communicate to students the approximate value of assignments and their placement in the evaluation chart.***

### **Attendance, Punctuality and Work Habits**

**It is expected that students arrive punctually to all classes and that attendance is regular. When students are absent, it is the responsibility of the student to find out what was missed. This should be done at an appropriate time such as before school on the date of return. Students are not to disrupt the learning of others by catching up on missed work during class. This includes requests for missed/lost handouts. All such matters should be dealt with before class commences.**

**Homework will be assigned on a regular basis. Students are expected to demonstrate initiative and self-direction in their approach to homework. Failure to do homework will adversely affect a student's ability to achieve high marks.**

### **Coursework – Tests, Assignments, etc.**

**Students are expected to write tests/quizzes on the set date. Students must make arrangements with the teacher in advance of the test date if they know that they will be away. In such cases, the student is expected to make arrangements with their teacher to make up the missed evaluation. If students are absent for an officially recognized excuse, they must present documentation and the teacher will set a date for an alternative test to be written.**

**Assignments – each assignment has a due date. Assignments are due at the start of the period on the due date, unless otherwise specified. Late assignments will be accepted until the ultimate due date. This is usually the date on which marked assignments are returned. After this date, assignments may not be submitted and the student will receive a zero. Teachers may use a variety of techniques to encourage students to submit late work. This may include, if necessary, a mark reduction of 10%.**

### **Exams and Culminating Activities**

**Exams and culminating evaluations must be done on the due date. It is usually not possible to reschedule these evaluations or to provide alternative assignments. Therefore a mark of zero will be assigned unless suitable documentation (medical certificate, etc.) is received. In such cases, the teacher, in consultation with colleagues and the administration, will determine an appropriate mark.**



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**COURSE:** \_\_\_\_\_

**TEACHER:** \_\_\_\_\_

***Please ensure that your child comes to school with the following items every class:  
Binder, Pen, Pencil, Eraser, Ruler, Scientific Calculator, Pencil case, Paper***

***Please acknowledge that you have read this outline:***

<b>Date:</b>	<b>Parent Phone number:</b> <b>Parent email:</b> <b>Parent/Guardian Full Name:</b> _____
<b>Date:</b>	<b>Student Signature</b>

Please return this to \_\_\_\_\_ by \_\_\_\_\_