



# St. Joseph Catholic Secondary School

## Department of Mathematics

**Course Code:** MAT1L1  
**Course Name:** Mathematics  
**Level:** Locally Developed  
**Teacher:** Mrs. Perrone

**Student's Name:** \_\_\_\_\_

**Textbook #:** \_\_\_\_\_

### Course Overview:

This course emphasizes further development of mathematical knowledge and skills to prepare students for success in their everyday lives, in the workplace, in the Grade 10 LDCC course, and in the Grade 11 and Grade 12 Mathematics Workplace Preparation courses. The course is organized by three strands related to money sense, measurement, and proportional reasoning. In all strands, the focus is on developing and consolidating key foundational mathematical concepts and skills by solving authentic, everyday problems. Students have opportunities to further develop their mathematical literacy and problem-solving skills and to continue developing their skills in reading, writing, and oral language through relevant and practical math activities.

### Curriculum Strands and Overall Expectations:

#### Money Sense

- Money Matters;
- The World of Work;
- Home Improvement.

#### Measurement

- Linear Measurement: Metric;
- Linear Measurement: Imperial.

#### Proportional Reasoning

- Cooking;
- Dining Out;
- Healthy Choices.

#### Ontario Catholic School Graduate

#### Expectations

#### **(Vision of the Learner)**

The graduate is expected to be:

1. A discerning believer
2. An effective communicator
3. A reflective, creative and holistic thinker
4. A self-directed, responsible, lifelong learner
5. A collaborative contributor
6. A caring family member
7. A responsible citizen

#### IN OUR CLASSROOM



## **Assessment and Evaluation**

Assessment and evaluation are based on the provincial curriculum expectations and the *Achievement Chart for Mathematics*, which identifies four categories. Throughout the course, students will be provided with various opportunities (e.g., quizzes, tests, tasks) to demonstrate their achievement of the curriculum expectations across all categories and receive feedback. It is policy that 70% of the final mark be based on assessments that occur throughout the term and 30% will be based on the final summative assessments that occur at the end of the course. The components of the final mark are shown in the table below.

<b>Term Evaluation (70%):</b>	
<b>Knowledge</b> The acquiring of Mathematics-specific content, and the comprehension of its meaning and significance (i.e., knowledge of facts, procedures, use of tools).	<b>30%</b>
<b>Application</b> The use of knowledge and skills to make connections within and between various contexts.	<b>30%</b>
<b>Thinking</b> The use of critical and creative thinking skills and/or processes (i.e., understanding the problem, making and carrying out a plan, reasoning, proving).	<b>20%</b>
<b>Communication</b> The conveying of meaning through various forms (i.e., clarity and organization of expression, use of models/representations, use of terms and symbols).	<b>20%</b>
<b>Summative Evaluation (30%):</b>	
<b>Culminating Activity</b>	<b>30%</b>

Feedback will also be provided for student learning skills: Responsibility, Organization, Independent Work, Collaboration, Initiative and Self-Regulation (see additional form, "Learning Skills Checklist", for detailed rubric) are assessed apart from student achievement in the four categories outlined above and will conform to the coding:

E – Excellent                  G – Good                  S – Satisfactory                  N - Needs Improvement

Achievement Levels:

Level 1: 50 – 59%	Level 2: 60 – 69%	Level 3: 70 – 79%	Level 4: 80 – 100%
The student has demonstrated the required knowledge and skills with limited effectiveness. Achievement falls much below the provincial standard.	The student has demonstrated the required knowledge and skills with some effectiveness. Achievement approaches the provincial standard.	The student has demonstrated the required knowledge and skills with considerable effectiveness. Achievement meets the provincial standard.	The student has demonstrated the required knowledge and skills with a high degree of effectiveness. Achievement surpasses the provincial standard.

**Please refer to your student agenda for the following policies:**

Evaluation, attendance, and uniform

**Student Textbook:** Grade 9 Essentials, Replacement cost: \$15.00

**Student: (print name)** \_\_\_\_\_ **Signature:** \_\_\_\_\_

**Parent/Guardian Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

## MAT1L1 Course Outline - Learning Goals

<p style="text-align: center;"><u>Unit 1: Money Matters</u></p> <ul style="list-style-type: none"><li>• Show sums of money using coins</li><li>• Write money amount in dollars and cents</li><li>• Add money amounts in dollars and cents</li><li>• Keep track of money spent on various items</li><li>• Complete a spending budget</li><li>• Round money amounts and prices</li><li>• Estimate prices</li><li>• Make change by counting up or subtraction</li><li>• Change a percent to a decimal</li><li>• Estimate and calculate HST</li><li>• Compare % discounts and fraction discounts</li><li>• Calculate a discount and the sale price</li><li>• Calculate a unit price</li><li>• Compare unit prices for 2 or more items</li></ul>	<p style="text-align: center;"><u>Unit 2: Linear Measurement - Metric</u></p> <ul style="list-style-type: none"><li>• Multiply and divide by powers of 10</li><li>• Convert metric lengths</li><li>• Estimating and measuring metric lengths</li><li>• Estimate, measure, and calculate the perimeter of regular and irregular shapes in metric units</li><li>• Draw scale diagrams</li></ul>
<p style="text-align: center;"><u>Unit 3: Linear Measurement - Imperial</u></p> <ul style="list-style-type: none"><li>• Identify imperial measurements</li><li>• Write the abbreviations of imperial measurements</li><li>• State the fractions of an inch</li><li>• Write equivalent fractions</li><li>• Determine the appropriate imperial unit for linear measurements</li><li>• Estimate and measure imperial lengths</li><li>• Add, subtract, multiply, and divide imperial measurements</li><li>• Estimate, measure, and calculate the perimeter of regular and irregular shapes in imperial units</li></ul>	<p style="text-align: center;"><u>Unit 4: Cooking</u></p> <ul style="list-style-type: none"><li>• Use a cookbook or internet resources to find a variety of recipes</li><li>• Translate abbreviated metric and imperial measurements into words</li><li>• Rank imperial and metric measuring spoons according to size</li><li>• Use personal references to estimate the amount of material can fit in a container</li><li>• Add and subtract simple fractions used in recipes</li><li>• Writing and simplifying basic ratios</li><li>• Apply basic ratios to recipe calculations</li><li>• Convert imperial and metric units of measurement used in cooking</li><li>• Estimate and calculate the cost of buying ingredients</li></ul>

### Unit 5: Sports and Leisure

- Write a ratio as a fraction
- State equivalent fractions
- Express a comparison of two numbers as a rate
- Calculate rates and unit rates
- Convert metric and imperial units used in sports and leisure
- Apply scale, measurement and unit conversion to measurement problems in sports and leisure
- Calculate the costs associated with a sports or leisure activity

### Unit 6: Dining Out

- Rank the cost items on a menu from least to greatest
- Estimate and calculate the total cost of items chosen from a menu
- Calculate the combination of bills and coins needed to pay for the items chosen from a menu
- Calculate the change received from a purchase
- Compare the cost of items purchased as a combination to the cost if the items are purchased separately
- Calculate the tax on a fast food purchase
- Estimate and calculate the tip on a restaurant bill
- Keeping track of money spent on a day out
- Convert basic percentages to decimals and fractions
- Estimate and calculate discounts and sale prices

### Unit 7: Home Improvement

- Use personal references (ex. Hand width, foot length) to estimate metric and imperial lengths
- Measure area using a square unit model
- Calculate the area of a rectangle in square cm and other metric units using the formula  $A = \text{length} \times \text{width}$
- Convert metric area units
- Estimate and calculate the area of composite shapes
- Solve area problems using costs expressed as unit rates
- Estimate the amount of material needed and cost for a home improvement job
- Calculate the amount of material needed and cost for a home improvement job
- Calculate the area of a triangle using a square unit model
- Calculate the area of a triangle in various units using the formula  $Area = \frac{\text{base} \times \text{height}}{2}$
- Calculate the area of composite shapes involving triangles
- Calculate the amount and material needed to cover a composite shape with paint or similar material

### Unit 8: Healthy Choices

- Estimate the mass of an object in metric units using a personal reference
- Choose the appropriate unit for measuring mass
- Calculate the mass of an object in metric units
- Compare items that are sold by volume or mass
- Interpret serving sizes in the Canada Food Guide
- Estimate and calculate the amount of food needed to satisfy a Canada Food Guide serving requirement
- Analyze a nutrition information label using percent, ratio, and mass calculations
- Compare nutrient ratios
- Calculate nutrient amounts using percentages, decimals, and fractions

### Unit 9: Volume of Rectangular Prisms

- Use cubes to build rectangular prisms
- Calculate the volume of a rectangular prism by counting the number of cubes needed to build the prism
- Calculate the volume of a rectangular prism using the formula  $\text{Volume} = \text{Area of Base} \times \text{Height}$
- Compare the volume and mass of a rectangular prism
- Solve problems involving the volume and mass of rectangular prisms. For example, find the cost of shipping a box of textbooks
- Calculate the volume of composite shapes involving rectangular prisms