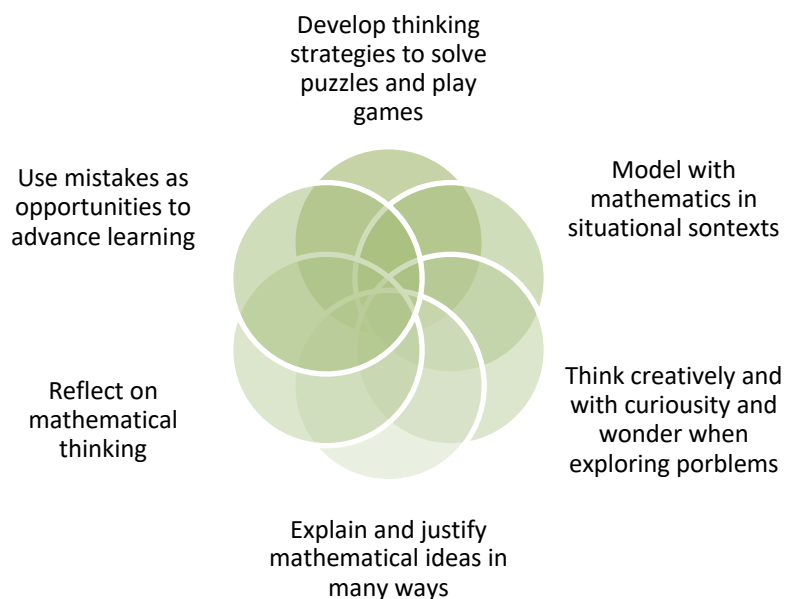


Material Covered:

In this Workplace Math 11 course, you will explore a wide range of mathematical ideas that connect to real-world problem solving. Proportional reasoning is used to make sense of multiplicative relationships, helping you compare and interpret quantities in meaningful ways. You will also learn how mathematics informs financial decision making, giving you tools to make choices about money with greater confidence. The course examines how 3D objects can be represented and described in 2D space, strengthening spatial understanding. Building flexibility with numbers is emphasized so that you can develop deeper meaning, understanding, and confidence in your problem-solving skills. Finally, by representing and analyzing data, you will learn to notice and wonder about patterns and relationships, enhancing your ability to think critically about the information around you.

These are the Curricular Competencies for the course:



Textbook:

No textbook is required for this course.

Course Design:

This course is designed for independent learning, so you don't need a textbook. Everything you need—notes, worksheets, projects, quizzes, and cumulative exams—is included within the course materials. The course is organized into five main units. In Unit 1, Financial Literacy, you will explore topics such as simple and compound interest, credit cards, borrowing money, and financial institutions to better understand how money works in everyday life. Unit 2, Rate of Change, focuses on slope, angle of elevation, and interpreting how quantities change in relation to each other. Unit 3, Probability and Statistics, introduces probability in real-life contexts, along with interpreting data and using key statistical vocabulary. In Unit 4, Interpreting Graphs, you will learn how to read and analyze graphs found in society, including how to recognize misleading ones. Finally, Unit 5, 3D Objects, teaches you how to represent three-dimensional shapes through scale drawings, different views, and specialized diagrams such as exploded, isometric, and perspective drawings.

Grading:

Your understanding in this course will be assessed through both practice and testing. Worksheets, worth 40% of your grade, give you the chance to show your learning as you work through the material and build your skills. Projects, worth 20%, give you the chance to apply math concepts in creative and practical ways. Quizzes and cumulative exams, each worth 20%, allow you to show how well you can apply the information that you have retained over time. Together, these four parts provide a clear picture of your progress and understanding.

Financial Literacy

Goal:

The primary goal of this unit is to give you the practical knowledge and skills you need to make informed and responsible financial decisions. By exploring the fundamentals of interest, credit, borrowing, and financial institutions, you will develop a strong foundation for managing your personal finances effectively throughout your life.

Objectives:

By the end of this unit, you should be able to:

- Demonstrate the ability to calculate and differentiate between simple and compound interest to analyze their impact on financial growth.
- Evaluate the benefits and costs of credit cards and store promotions to recognize their long-term financial implications.
- Understand various types of loans and the responsibilities of borrowing, including the calculation of total repayment costs.
- Recognize the roles of different financial institutions and compare various types of financial accounts.

What to Do in this Unit:

- Ask your teacher for the Unit 1 Notes and Worksheet and complete all the work as directed there.
- When you are ready, submit your worksheet for Unit 1 to your teacher for marking.
- Ask your teacher for the Unit 1 Quiz and hand in once complete.
- Ask your teacher for Project #1: The “Market Analyst”. Hand in to your teacher when complete.

Rate of Change

Goal:

The primary goal of this unit is to help you use key mathematical concepts to describe and analyze the world around you. By exploring slope, angle of elevation, and rate of change, you will be able to interpret graphical data and solve real-world problems involving steepness, height, and how things change over time.

Objectives:

By the end of this unit, students will be able to:

- Demonstrate the ability to calculate and interpret slope from a variety of representations, including graphs, tables, and equations.
- Calculate the angle of elevation or depression to solve problems involving height and distance.
- Analyze and interpret the rate of change in linear and non-linear relationships to describe real-world phenomena.

What to Do in this Unit:

- Ask your teacher for the Unit 2 Notes and Worksheet and complete all the work as directed there.
- When you are ready, submit your worksheet for Unit 2 to your teacher for marking.
- Ask your teacher for the Unit 2 Quiz and hand in once complete.
- Ask your teacher for Cumulative Exam #1 and submit to your teacher once complete.

Probability and Statistics

Goal:

The primary goal of this unit is to help you use key mathematical concepts to describe and analyze the world around you. By exploring probability and statistics, you will be able to interpret and make sense of data, allowing you to solve real-world problems and draw informed conclusions.

Objectives:

By the end of this unit, students will be able to:

- Distinguish between theoretical and experimental probability and apply them to various real-world contexts.
- Analyze and interpret data presented in various graphical and tabular formats to make valid conclusions.
- Utilize correct statistical vocabulary to effectively communicate findings from data analysis.

What to Do in this Unit:

- Ask your teacher for the Unit 3 Notes and Worksheet and complete all the work as directed there.
- When you are ready, submit your worksheet for Unit 3 to your teacher for marking.
- Ask your teacher for the Unit 3 Quiz and hand in once complete.
- Ask your teacher for Project #2: The “Data Detective”. Hand in to your teacher when complete.

Interpreting Graphs

Goal:

The primary goal of this unit is to equip you with the skills to critically analyze and effectively communicate information through graphs. You will learn to both interpret and create visual data representations, empowering you to identify misleading information and present data accurately.

Objectives:

By the end of this unit, students should be able to:

- Analyze and interpret various types of graphs encountered in societal contexts, such as news articles and public reports.
- Recognize and evaluate common techniques used to create misleading graphs and explain how they can distort information.
- Construct accurate and effective graphs that clearly represent data without manipulation.

What to Do in this Unit:

- Ask your teacher for the Unit 4 Notes and Worksheet and complete all the work as directed there.
- When you are ready, submit your worksheet for Unit 4 to your teacher for marking.
- Ask your teacher for the Unit 4 Quiz and hand in once complete.

3D Objects

Goal:

The primary goal of this unit is to equip you with the skills to represent and interpret three-dimensional objects in two dimensions. You will learn to create and analyze various technical drawings, giving you the tools to understand and communicate complex designs accurately.

Objectives:

By the end of this unit you should be able to:

- Demonstrate the ability to create and interpret scale drawings to represent real-world objects and spaces.
- Create two-dimensional views (front, top, side) from a three-dimensional object and vice versa.
- Analyze and differentiate between isometric, exploded, and perspective diagrams to understand how they represent three-dimensional objects.

What to Do in this Unit:

- Ask your teacher for the Unit 5 Notes and Worksheet and complete all the work as directed there.
- When you are ready, submit your worksheet for Unit 5 to your teacher for marking.
- Ask your teacher for the Unit 5 Quiz and hand in once complete.
- Ask your teacher for Cumulative Exam #2 and submit to your teacher once complete.

Congratulations, you have finished Workplace Math 11!