Rationale:

The Mathematics 11 Workplace course is designed to prepare you for the mathematical understandings and critical-thinking skills required for success in everyday life.

Material Covered:

The Apprenticeship and Workplace Mathematics 11 course is divided into three sections:

- Working with Money
  · Personal Budgeting
  · Investing Money
  · Borrowing Money

- Working with Objects, Slopes and Relations
  · Drawing 3D Objects
  · Slopes and Rates
  · Linear Relations

- Working with Probability
  · Probability, Odds and Expected Value

Textbook:

The course uses the text *Mathematics for Apprenticeship and Workplace 11.* (ISBN 978-0-17-650416-8, Nelson)

Notebook:

Your notebook should be neatly organized, as this will help you study for tests. Label the unit and topic headings clearly at the top of the page. Answer questions fully, so that the information makes sense and can be used later for studying. Show which textbook and which page number the information comes from so you can look it up again easily.

Grading:

This course works on a mastery system. You must pass the mastery tests in each unit to the 80% level before you can go on. In addition, there are cumulative tests from time to time. These are tests you can only take once, so studying before them is essential to do well. Your final class mark for the course is based 60% on the mastery unit tests and 40% on the cumulative tests.

Goal:

The goal of this unit is to increase your skills with banking, budgeting, and managing money.

Objectives:

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

- Describe the differences between the different types of financial institutions.
- Describe the characteristics of different types of bank accounts.
- Describe how debit cards and online banking work.
- Describe how to create a strong password for online banking.
- Create and analyze a budget.

What to Do in this Unit:

- Ask your teacher for the Unit 1 Workbook, which is Chapter 8, Managing Money.
- Complete the work in the workbook, except for 8.7, which you may omit. Remember to ask your teacher for help if you are stuck!

- When you are ready ask your teacher for the Unit 1 Test. Remember, you must get 80% to pass, so studying hard is essential to do well.

Goal:

The goal of this unit is to increase your skills with investing, including calculating simple and compound interest.

Objectives:

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

- Understand and calculate simple interest problems.
- Understand and calculate compound interest problems.

What to Do in this Unit:

- Ask your teacher for the Unit 2 Workbook, which is Chapter 1, Investing Money.
- Complete the work in the workbook. Remember to ask your teacher for help if you are stuck!

- When you are ready ask your teacher for the Unit 2 Test. Remember, you must get 80% to pass, so studying hard is essential to do well.

Goal:

The goal of this unit is to increase your skills with credit cards, loans, lines of credit, and borrowing money.

Objectives:

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

- Describe how credit cards, loans, and lines of credit work.
- Determine the best deal in a sales promotion.

What to Do in this Unit:

- Ask your teacher for the Unit 3 Workbook, which is Chapter 5, Borrowing Money.
- Complete the work in the Workbook. Remember to ask your teacher for help if you are stuck!

- When you are ready ask your teacher for the Unit 3 Test. Remember, you must get 80% to pass, so studying hard is essential to do well.

- Go over your work from Units 1 – 3 in preparation for Cumulative Test #1. When you are ready to write it, ask your teacher. Remember, this test is one chance only, so do your best.

Goal:

The goal of this unit is to increase your skills working with graphs.

Objectives:

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

- Draw different views of objects, including one-point perspective, isometric persepective and exploded-view diagrams.
- Understand and use scale.
- Draw scale diagrams.

What to Do in this Unit:

- Ask your teacher for the Unit 4 Workbook, which is Chapter 7, Drawing Objects and Shapes.
- Complete the work in the Workbook. Remember to ask your teacher for help if you are stuck!

- When you are ready, ask your teacher for the Unit 4 Test. Remember, you must get 80% to pass, so studying hard is essential to do well.

Goal:

The goal of this unit is to increase your skills working with slopes and rates

Objectives:

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

- Define what slope is, compare slopes, and solve slope problems.
- Work with vertical and horizontal lines.
- Solve problems with angle of elevation and slope.
- Define rate of change, and work with rates and unit analysis.
- Convert within and between Imperial and Metric measurement systems.

What to Do in this Unit:

- Ask your teacher for the Unit 5 Workbook, which is Chapter 6, Slopes and Rates.
- Complete the work in the Workbook, but you may omit 6.10. Remember to ask your teacher for help if you are stuck!

- When you are ready ask your teacher for the Unit 5 Test. Remember, you must get 80% to pass, so studying hard is essential to do well.

Goal:

The goal of this unit is to increase your skills working with linear relations.

Objectives:

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

- Define what a linear relation is and graph it.
- Understand direct and partial variation.
- Work with scatter plots.

What to Do in this Unit:

- Ask your teacher for the Unit 6 Workbook, which is Chapter 10, Linear Relations.
- Complete the work in the Workbook, but you may omit 10.3. Remember to ask your teacher for help if you are stuck!

- When you are ready ask your teacher for the Unit 6 Test. Remember, you must get 80% to pass, so studying hard is essential to do well.

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- Go over your work from Units 4 – 6 in preparation for Cumulative Test #2. When you are ready to write it, ask your teacher. Remember, this test is one chance only, so do your best.

Goal:

The goal of this unit is to increase your skills working with probability, odds and expected value..

Objectives:

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

- Define what probability means.
- Express probability in words, fractions, decimals, and percents.
- Calculate the probability of an event.
- Make predictions based on the probability of an event.
- Understand the difference between probability and odds and switch between them.
- Calculate expected value.

What to Do in this Unit:

- Ask your teacher for the Unit 7 Workbook.
- Complete the work in the Workbook. Remember to ask your teacher for help if you are stuck!

- When you are ready ask your teacher for the Unit 7 Test. Remember, you must get 80% to pass, so studying hard is essential to do well.

- Go over your work from Unit 7 in preparation for Cumulative Test #3. When you are ready to write it, ask your teacher. Remember, this test is one chance only, so do your best.

- # Congratulations! You've finished Math 11 Workplace!