

MATERIAL COVERED:

The Math 7 WNCP course is divided into two major parts:

1. Number Operations
 - Patterns and Relations
 - Integers
 - Fractions, Decimals, and Percents
 - Operations with Fractions
 - Equations
2. Data Analysis and Geometry
 - Data Analysis
 - Circles and Area
 - Geometry

TEXTBOOK:

The course uses the following text: *Math Makes Sense 7 (WNCP Edition)* (ISBN 0-321-43155-3)

EVALUATION:

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 take only once, so studying before them is essential to doing well. Your final mark for the course is based 60% on mastery tests and 40% on cumulative tests.

GOAL

The goal of this unit is to become familiar with patterns, equations and relations.

OBJECTIVES

A while completing this unit you'll investigate the following topics and practice working with:

- Using patterns to explore divisibility rules.
- Translating between patterns and equivalent linear relations.
- Evaluating algebraic expressions by substitution.
- Representing linear relations in graphs and tables.
- Solving equations and verifying the solutions.

WHAT TO DO IN THIS UNIT

1. This unit uses **Chapter 1** in your textbook.
2. Read and follow the example problems at the beginning of each section in the table below, then do the practice problems listed. Be sure to check off each section as you complete it.

✓	Chapter	Practice by doing the following questions:
	1.1	p.8 #1, 3–6, 8
	1.2	p.12 #1–5, 7–9
	1.3	p.18 #1, 3–10
	1.4	p.23 #1–4, 6–8
	1.5	p.27 #1–4
	1.6	p.33 #1–7
	1.7	p.36 #1–6, 8
	1.8	p.41 #1–9
	Review	p.44 #1, 2, 5–9, 11, 13, 15, 16

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

GOAL

The goal of this unit is to increase your skills with integers and integer operations.

OBJECTIVES

While completing this unit you'll investigate the following topics and practice working with:

- Modelling integers with coloured tiles.
- Adding and subtracting integers using coloured tiles and number lines.
- Solving problems involving the addition and subtraction of integers.

WHAT TO DO IN THIS UNIT

1. This unit uses **Chapter 2** in your textbook.
2. Read and follow the example problems at the beginning of each section in the table below, then do the practice problems listed. Be sure to check off each section as you complete it.

✓	Chapter	Practice by doing the following questions:
	2.1	p.54 #1, 2, 4–6
	2.2	p.58 #1–6, 8–10, 12
	2.3	p.62 #1–10
	2.4	p.69 #1–5, 7, 8, 10, 12, 13
	2.5	p.73 #1–8, 11, 12
	Review	p.79 #1, 3–9, 11–16

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

GOAL

The goal of this unit is to increase your skills in working with fractions, decimals and percents

OBJECTIVES

While completing this unit you'll investigate the following topics and practice working with:

- Converting between fractions and terminating or repeating decimals.
- Comparing and ordering fractions, decimals, and mixed numbers.
- Adding, subtracting, multiplying and dividing decimals.
- Solving problems involving fractions, decimals, and percents.

WHAT TO DO IN THIS UNIT

1. This unit uses **Chapter 3** in your textbook.
2. Read and follow the example problems at the beginning of each section in the table below, then do the practice problems listed. Be sure to check off each section as you complete it.

✓	Chapter	Practice by doing the following questions:
	3.1	p.88 #1–10
	3.2	p.94 #1–6, 8–10
	3.3	p.98 #1–6, 9
	3.4	p.102 #1, 2, 4, 7–10, 12
	3.5	p.106 #1–9, 12
	3.6	p.109 #1–6
	3.7	p.112 #1–4
	3.8	p.115 #1–7
	Review	p.121 #1–4, 6–9, 11–17

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

GOAL

The goal of this unit is to increase your skills in working with fractions and performing operations with fractions.

OBJECTIVES

While completing this unit you'll investigate the following topics and practice working with:

- Adding and subtracting fractions using models, pictures, and symbols.
- Adding and subtracting mixed numbers.
- Solving problems involving the addition and subtraction of fractions and mixed numbers.

WHAT TO DO IN THIS UNIT

1. This unit uses **Chapter 5** in your textbook.
2. Read and follow the example problems at the beginning of each section in the table below, then do the practice problems listed. Be sure to check off each section as you complete it.

✓	Chapter	Practice by doing the following questions:
	5.1	p.179 #1–5, 7
	5.2	p.183 #1, 2, 4, 5, 7, 8, 11
	5.3	p.188 #1–8, 10
	5.4	p.193 #1–3, 5–11
	5.5	p.197 #1–6, 9
	5.6	p.202 #1–5, 7–12
	5.7	p.207 #1, 2, 4–10
	Review	p.213 #1, 2, 4–9, 11–14, 16–18

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

GOAL

The goal of this unit is to develop your skills in modelling and solving equations.

OBJECTIVES

While completing this unit you'll investigate the following topics and practice working with:

- Demonstrating and using the preservation of equality.
- Explaining the difference between an expression and an equation.
- Using models, pictures, and symbols to solve equations and verify the solutions.
- Solving equations using algebra.
- Deciding which method to use when solving an equation.
- Solving problems using related equations.

WHAT TO DO IN THIS UNIT

1. This unit uses **Chapter 6** in your textbook.
2. Read and follow the example problems at the beginning of each section in the table below, then do the practice problems listed. Be sure to check off each section as you complete it.

✓	Chapter	Practice by doing the following questions:
	6.1	p.223 #1, 3–7, 9, 10
	6.2	p.229 #1–5
	6.3	p.234 #1–7
	6.4	p.238 #1–7
	6.5	p.243 #1–4, 6–8
	Review	p.248 #1–3, 5–7, 10–12, 14

3. When you are ready, ask your teacher for the Unit 5 Test. Remember, you must get 80% to pass, so studying hard is essential.
4. Review your work from Units 1–5 in preparation for Cumulative Test #1. Ask your teacher for it when you are ready. You may only write it once, so study hard in order to do a good job on it.

GOAL

The goal of this unit is to develop your skills in analyzing data and working with probabilities.

OBJECTIVES

While completing this unit you'll investigate the following topics and practice working with:

- Finding the mean, median, mode and range of a set of data.
- Investigating the effect of an outlier on mean, median and mode.
- Determining the most appropriate average to report findings.
- Expressing probabilities as ratios, fractions and percents.
- Identifying sample space for experiments involving two independent events.
- Comparing experimental and theoretical probabilities.

WHAT TO DO IN THIS UNIT

1. This unit uses **Chapter 7** in your textbook.
2. Read and follow the example problems at the beginning of each section in the table below, then do the practice problems listed. Be sure to check off each section as you complete it.

✓	Chapter	Practice by doing the following questions:
	7.1	p.260 #1–7
	7.2	p.264 #1–6
	7.3	p.269 #1–4, 6
	7.4	p.273 #1–4, 6–8
	7.5	p.282 #1–5, 8
	7.6	p.287 #1, 2, 4–6
	Review	p.292 #1, 3–9, 11

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

GOAL

The goal of this unit is to develop your skills in working with circles and circle properties.

OBJECTIVES

While completing this unit you'll investigate the following topics and practice working with:

- Investigating relationships among the radius, diameter, and circumference of a circle.
- Determining the sum of the central angles of a circle.
- Constructing circles and solving problems involving circles.
- Developing formulas to find the areas of a parallelogram, a triangle, and a circle.
- Drawing, labelling, and interpreting circle graphs.

WHAT TO DO IN THIS UNIT

1. This unit uses **Chapter 4** in your textbook.
2. Read and follow the example problems at the beginning of each section in the table below, then do the practice problems listed. Be sure to check off each section as you complete it.

✓	Chapter	Practice by doing the following questions:
	4.1	p.131 #1–4, 6, 8
	4.2	p.136 #1, 2, 4, 6, 8
	4.3	p.141 #1, 2, 6, 8–10
	4.4	p.145 #1, 2, 4–9
	4.5	p.151 #1–6, 8
	4.6	p.158 #1–6
	4.7	p.163 #1–4
	Review	p.168 #1–5, 8, 10, 11, 13–17

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

GOAL

The goal of this unit is to develop your skills in working with lines, angles and transformations.

OBJECTIVES

While completing this unit you'll investigate the following topics and practice working with:

- Identifying and constructing parallel and perpendicular line segments.
- Constructing and verifying perpendicular bisectors and angle bisectors.
- Identifying and plotting points in the four quadrants of a grid.
- Graphing and describing transformations of a shape on a grid.

WHAT TO DO IN THIS UNIT

1. This unit uses **Chapter 8** in your textbook.
2. Read and follow the example problems at the beginning of each section in the table below, then do the practice problems listed. Be sure to check off each section as you complete it.

✓	Chapter	Practice by doing the following questions:
	8.1	p.302 #1–4, 7
	8.2	p.305 #1–3, 6
	8.3	p.308 #1–4
	8.4	p.312 #1–4, 5, 7
	8.5	p.318 #1–3, 5, 6, 8, 11, 12
	8.6	p.322 #1–7
	8.7	p.327 #1–4, 6, 8
	Review	p.335 #1, 4–7, 9, 11, 13

3. When you are ready, ask your teacher for the Unit 8 Test. Remember, you must get 80% to pass, so studying hard is essential.
4. Review your work from Units 6–8 in preparation for Cumulative Test #2. Ask your teacher for it when you are ready. You may only write it once, so study hard in order to do a good job on it.