Math 8

Textbook: MathLinks 8 (McGraw-Hill Ryerson)

Chapter 1: Representing Data:

- critique ways in which data is presented

Chapter 2: Ratios, Rates and Proportional Reasoning

- demonstrate an understanding of ratio and rate
- solve problems that involve rates, ratios, and proportional reasoning

Chapter 3: Pythagorean Relationship

- demonstrate an understanding of perfect squares and square roots, using materials, using pictures, and using numbers (limited to whole numbers)
- determine the approximate square root of numbers that are not perfect squares (limited to whole numbers)
- develop and apply the Pythagorean theorem to solve problems

Chapter 4: Understanding Percent

- demonstrate an understanding of percents greater than or equal to 0%, including fractions of percents and percents over 100.

Chapter 5: Surface Area

- draw and construct nets for 3-D objects
- determine the surface area of: right rectangular prisms, right triangular prisms, right cylinders
- draw and interpret top, front, and side views of 3-D objects composed of right rectangular prisms

Chapter 6: Fraction Operations

- demonstrate an understanding of multiplying and dividing positive fractions and mixed numbers, using materials, using pictures, and using numbers

Chapter 7: Volume

- develop and apply formulas for determining the volume of right prisms and right cylinders

Chapter 8: Integers

- demonstrate an understanding of multiplication and division of integers, using materials, using pictures, and using numbers

Chapter 9: Linear Relations

- graph and analyse two-variable linear relations

Chapter 10: Solving Linear Equations

- model and solve problems using linear equations of the form
  $ax = b$,
  $ax + b = c$
  $a(x + b) = c$
  (where a, b, c are integers)
  using materials, using pictures, and using mathematical symbols

Chapter 11: Probability

- solve problems involving the probability of independent events

Chapter 12: Tessellations

- demonstrate an understanding of tessellation by
  - explaining the properties of shapes that make tessellating possible
  - creating tessellations
  - identifying tessellations in the environment