Math Quest 1

Exploring integers on the number line
       Building number lines
       Modeling elevation, temperature, and time with number lines
       Modeling addition on the number line
       Modeling subtraction on the number line
       Adding and subtracting large numbers

Modeling problems algebraically
       Variables and expressions
       The chip model
       Solving equations
       Solving equations on the number line
       Graphing on a coordinate plane

Math Quest 2

Patterns, graphs, and tables
    Graphing on the coordinate plane

Functions and graphs
    Adding and subtracting integers (review)
    Multiplication of integers
    Functions

Exploring fractions
    Modeling fractions
    Adding and subtracting fractions
    Multiplying fractions
    equations with fractions

Math Quest 3

Area and Perimeter Relationships
  Comparing Measurements of Rectangles
  Comparing Measurements of Right Triangles

Lines, Slopes, and Intercepts
  Relating Coordinates of Points
  Equations of Lines
  Slopes and Intercepts
  Line Applications

Multiplying Fractions and Revisiting Slopes
  Patterns and sequences
  Detecting and describing change
  Ratios and proportions

Math Quest 4

Counting
- Learn the basics of set theory
- Use different ways to describe a set
- Find the union, intersection, and complement of sets
- Draw a Venn Diagram to represent sets
- Find the sample space of an experiment

Rule of Product and Rule of Sum
- Use tree diagrams and tables to model problems
- Derive the rule of product and rule of sum

Permutations and Combinations
- Count the number of outcomes of an experiment
- Define a k-combination
- Compare combinations to permutations

Probability and Sampling
- Simple and compound events
- Mutually exclusive events
- Successive events

Math Quest 5

Logical Reasoning
       Questioning Techniques
       Strategies
       Divisibility

Number Theory
       Primes & Numbers of Divisors
       Divisibility
       Congruence
       Greatest common divisor and least common multiple

Algebra
       Sequences
       Summations
       Variable Manipulation
       Ratio and rate applications

Counting
       Rule of sum and rule of product
       Permutations and combinations
       Probability

Geometry
       Areas of Triangles & Quadrilaterals
       Right triangles
       Scaling and similarity