The Connected Mathematics Units

Grade 6	Grade 7	Grade 8
Prime Time *Factors and Multiples* number theory, including factors, multiples, primes, and composites	**Variables and Patterns** *Introducing Algebra* variables; representations of relationships, including tables, graphs, words, and symbols	**Thinking with Mathematical Models** *Representing Relationships* introduction to functions and modeling; slope; finding the equation of a line
Data About Us *Statistics* formulating questions; gathering, organizing, representing, and analyzing data; interpreting results from data	**Stretching and Shrinking** *Similarity* similar figures; scale factors; basic similarity transformations and their algebraic rules	**Looking for Pythagoras** *The Pythagorean Theorem* the Pythagorean Theorem; irrational numbers; connecting coordinates, slope, distance, and area
Shapes and Designs *Two-Dimensional Geometry* properties of polygons, angle measures, side-angle relationships, tiling	**Comparing and Scaling** *Ratio, Proportion, and, Percent* rates and ratios; making comparisons, proportional reasoning	**Growing, Growing, Growing** *Exponential Relationships* recognizing and representing exponential growth and decay in tables, graphs, words, and symbols
Bits and Pieces I *Understanding Rational Numbers* moving among fractions, decimals, and percents; comparing and ordering rational numbers	**Accentuate the Negative** *Integers* understanding and modeling integers; integer operations; four-quadrant graphing	**Frogs, Fleas, and Painted Cubes** *Quadratic Relationships* recognizing and representing quadratic functions in tables, graphs, words, and symbols
Covering and Surrounding *Two-Dimensional Measurement* area and perimeter relationships; area and perimeter of polygons and circles	**Moving Straight Ahead** *Linear Relationships* recognizing and representing linear relationships in tables, graphs, words, and symbols; solving simple linear equations	**Say It with Symbols** *Algebraic Reasoning* equivalent expressions; solving linear and simple quadratic equations
How Likely Is It? *Probability* reasoning about uncertainty; experimental and theoretical probabilities; equally-likely and unequally-likely events	**Filling and Wrapping** *Three-Dimensional Measurement* volume and surface area of various solids; volume and surface area relationships	**Kaleidoscopes, Hubcaps, and Mirrors** *Symmetry and Transformations* symmetries of designs; symmetry transformations; connecting geometry and algebra
Bits and Pieces II *Using Rational Numbers* understanding of and skill in addition, subtraction, and multiplication of fractions and decimals; solving percent problems	**What Do You Expect?** *Probability and Expected Value* expected value; probabilities of two-stage events	**Samples and Populations** *Data and Statistics* using samples to reason about populations and make predictions; comparing samples and sample distributions
Ruins of Montarek *Spatial Visualization* creating and interpreting architectural and isometric representations	**Data Around Us** *Number Sense* quantitative reasoning with large numbers; scientific notation	**Clever Counting** *Combinatorics* counting techniques, including trees, lists, tables, and diagrams; networks

Source: http://www.math.msu.edu/cmp