

# Connected Mathematics

**The McMurray Staff is completing year 2 of a 3 year implementation plan. This document reflects the scope and sequence that will be in place beginning with year 4 (2006-07) when the program is fully implemented.**

## **Next Steps:**

**A pacing calendar needs to be developed for CMP at McMurray.**

**The GLE's addressed in each unit need to be identified, so that ongoing assessments can reflect the state guidelines for each grade level.**

**Beginning and end of year assessments for grades 6-8 need to be developed.**

**The test used at VHS to qualify students for algebra needs to be used, or adapted if needed, for selecting the students who are ready to enroll in the 8<sup>th</sup> grade algebra class.**

## Grade 6

### Term 1

#### Prime Time

*Factors and Multiples*

number theory, including factors, multiples, primes, and composites

#### Data About Us

*Statistics*

formulating questions; gathering, organizing, representing, and analyzing data; interpreting results from data

#### Shapes and Designs

*Two-Dimensional Geometry*

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properties of polygons, angle measures, side-angle relationships, tiling

## Bits and Pieces I

*Understanding Rational Numbers*

moving among fractions, decimals, and percents; comparing and ordering rational numbers

## Term 2

## Bits and Pieces I (Continued)

## Covering and Surrounding

*Two-Dimensional Measurement*

area and perimeter relationships; area and perimeter of polygons and circles

## Bits and Pieces II

*Using Rational Numbers*

understanding of and skill in addition, subtraction, and multiplication of fractions and decimals; solving percent problems

## Parts of:

## How Likely is It?

*Probability*

reasoning about uncertainty; experimental and theoretical probabilities; equally-likely and unequally-likely events

## Parts of:

## Ruins of Montarek

*Spatial Visualization*

creating and interpreting architectural and isometric representations

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Grade 7

Term 1

## Variables and Patterns

*Introducing Algebra*

variables; representations of relationships, including tables, graphs, words, and symbols

## Stretching and Shrinking

*Similarity*

similar figures; scale factors; basic similarity transformations and their algebraic rules

## Comparing and Scaling

*Ratio, Proportion, and, Percent*

rates and ratios; making comparisons, proportional reasoning

## What Do You Expect?

*Probability and Expected Value*

expected value; probabilities of two-stage events

Term 2

## Data Around Us

*Number Sense*

quantitative reasoning with large numbers; scientific notation

## Accentuate the Negative

*Integers*

understanding and modeling integers; integer operations; four-quadrant graphing

Half of:

## Moving Straight Ahead

*Linear Relationships*

recognizing and representing linear relationships in tables, graphs, words, and symbols;  
solving simple linear equations

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Grade 8

Term 1

## Thinking with Mathematical Models

*Representing Relationships*

introduction to functions and modeling; slope; finding the equation of a line

## Looking For Pythagoras

*The Pythagorean Theorem*

the Pythagorean Theorem; irrational numbers; connecting coordinates, slope, distance, and area

## Growing, Growing, Growing

*Exponential Relationships*

recognizing and representing exponential growth and decay in tables, graphs, words, and symbols

Term 2

## Frogs, Fleas, Painted Cubes

*Quadratic Relationships*

recognizing and representing quadratic functions in tables, graphs, words, and symbols

## Say It With Symbols

*Algebraic Reasoning*

equivalent expressions; solving linear and simple quadratic equations

## Clever Counting

*Combinatorics*

counting techniques, including trees, lists, tables, and diagrams; networks

## Possibly Samples and Populations in subsequent years

*Data and Statistics*

using samples to reason about populations and make predictions; comparing samples and sample distributions

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Other:

Advanced 8<sup>th</sup> Grade will follow the first two trimesters of high school algebra, using the VHS text.

The content of the advanced 6<sup>th</sup> and 7<sup>th</sup> class has yet to be determined, but these classes could follow a modified 7<sup>th</sup> and 8<sup>th</sup> grade curriculum.