

Integrated Math

COURSE DESCRIPTION:

Students will build mathematical skills that will allow them to solve problems and reason logically. Students will be able to communicate their understanding by organizing, clarifying, and refining mathematical information for a given purpose; students will use everyday mathematical language and notation in appropriate and efficient forms to clearly express or represent complex ideas and information.

COURSE OBJECTIVES:

The purpose of this course is to provide students with an overview of the many mathematical disciplines. Topics included are number sense, geometry, algebra, measurement, probability and statistics, and data interpretation. Assessments within the course include multiple-choice, short-answer, or extended response questions. Also included in this course are self-check quizzes, audio tutorials, web quests and interactive games.

PREREQUISITES: Algebra

COURSE LENGTH: Two semesters

REQUIRED TEXT: None

COURSE OUTLINE:

Semester 1

Number Sense

- Whole Numbers
- Integers
- Fractions
- Decimals
- Exponents
- Square Roots
- Rational Numbers Single-Step Estimation

Operations

- Scientific Operations
- Order of Operations
- Estimation
- Ratio, Proportion & Percents
- Number Sense Problem Solving

Algebraic Sense

- Intro to Algebraic Expressions & Proportions
- Number Patterns
- Solving Single-Step Equations
- Solving Multi-Step Equations
- Inequalities
- Graphing equations and inequalities
- Systems of equations and inequalities

Intro to Probability

- Theoretical Probability
- Experimental Probability

- Mean, Median, Mode
- Data

Semester 2

Geometric Figures Unit

- Points, Lines & the Plane
- Polygons
- Angles
- Perpendicular & Parallel Lines
- Triangles
- Prisms, Cones, and Pyramids

Geometric Movement

- The Coordinate Plane
- Transformations
- Geometric Problem Solving

Measurement

- Metrics
- Customary Measurement
- Perimeter
- Area
- Volume
- Time

Probability 2

- Permutations
- Combination