

Math

At the end of the school year, students will be able to...

GOAL 6 Numbers Sense and Computations

Demonstrate and apply a knowledge and sense of numbers, including numeration and operations (addition, subtraction, multiplication, division), patterns, ratios and proportions.

STANDARD A

Demonstrate knowledge and use of numbers and their representations in a broad range of theoretical and practical settings.

- _____ Read, write, order and model numerals to 1000.
- _____ Use ordinal numbers.
- _____ Demonstrate use of even/odd numbers.
- _____ Explore expanded notation.
- _____ Demonstrate place value through three digits and explore four digits.
- _____ Compare and order fractions.

STANDARD B

Investigate, represent and solve problems using number facts, operations (addition, subtraction, multiplication and division) and their properties, algorithms, and relationships.

- _____ Create and identify real-life problems selecting and using appropriate math operations (with and without manipulatives).
- _____ Explore dividing with physical objects.

STANDARD C

Compute and estimate using mental mathematics, paper-and-pencil methods, calculators and computers.

- _____ Demonstrate basic mastery of addition and subtraction facts.
- _____ Add and subtract with two digits using place value and manipulatives.
- _____ Demonstrate multiplication as repeated addition (skip count 10, 5, 2, 3 and 4).

STANDARD D

Solve problems using comparisons of quantities, ratios, proportions and percents.

- _____ Apply and compare number concepts in real life applications.

GOAL 7 Measurement

Estimate, make and use measurements of objects, quantities and relationships and determine acceptable levels of accuracy.

STANDARD A

Measure and compare quantities using appropriate units, instruments, and methods.

- _____ Measure length, distance, weight volume and temperature using standard and non-standard measurement.
- _____ Identify and express values to a dollar.
- _____ Tell time to the nearest five-minute interval.

STANDARD B

Estimate measurements and determine acceptable levels of accuracy.

- _____ Explore possible methods for estimating a given measure.

STANDARD C

Select and use appropriate technology, instruments and formulas to solve problems, interpret results and communicate findings.

- _____ Explore perimeter and areas of given objects.
- _____ Demonstrate linear measurement using multiple representations.

GOAL 8 Algebra

Use algebraic and analytical methods to identify and describe patterns and relationships in data, solve problems and predict results.

STANDARD A

Describe numerical relationships using variables and patterns.

- _____ Find patterns in addition and subtraction facts.
- _____ Use mathematical symbols of $>$ and $<$.
- _____ Add and subtract using a number grid.
- _____ Explore equivalent names for numbers.

STANDARD B

Interpret and describe numerical relationships using tables, graphs and symbols.

- _____ Identify and complete numbers and geometric patterns with or without physical models.
- _____ Explore addition and subtraction number sentences with and without missing addends.

STANDARD C

Solve problems using systems of numbers and their properties.

- _____ Practice non-routine problem solving using a variety of methods.

STANDARD D

Using algebraic concepts and procedures to represent problem solving.

- _____ Solve simple problems with one rule.

GOAL 9 Geometry

Use geometric methods to analyze, categorize and draw conclusions about points, lines, planes and space.

STANDARD A

Demonstrate and apply geometric concepts involving points, lines, planes and solids.

- _____ Identify basic geometric solids: cube, sphere, cylinder and pyramid.
- _____ Explore polygons with 3, 4, 5, 6, and 8 sides.

STANDARD B

Identify, describe, classify and compare relationships using points, lines, planes and solids.

- _____ Explore geometric attributes (faces, edges and vertices).
- _____ Explore parallel and non-parallel line segments.
- _____ Identify symmetrical figures.
- _____ Explore congruent figures.

STANDARD C

Construct convincing arguments and proofs to solve problems.

- _____ Construct basic shapes.

STANDARD D

Use trigonometric ratios and circular functions to solve problems.

GOAL 10 Data Collection and Statistical Analysis

Collect, organize and analyze data using statistical methods; predict results; and interpret uncertainty using concepts of probability.

STANDARD A

Organize, describe, and make predictions from existing data.

- _____ Read and interpret simple graphs.

STANDARD B

Formulate questions, design data collection methods, gather and analyze data and communicate findings.

- _____ Use data to develop simple graphs/charts.
- _____ Explore range, mode, median and mean.

STANDARD C

Determine, describe and apply the probabilities of events.

- _____ Explore probability vocabulary such as all, some, exactly certain, likely and impossible.
- _____ Explore chance through games.