

# Math

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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.**

- \_\_\_\_\_ Count from 1 to 120.
- \_\_\_\_\_ Count objects from 1 to 20.
- \_\_\_\_\_ Read, write and order numerals from 1 to 20.
- \_\_\_\_\_ Identify ordinals first through tenth.
- \_\_\_\_\_ Identify concept of whole and half.
- \_\_\_\_\_ Explore counting by 10, 5 and 2.
- \_\_\_\_\_ Explore two digit numbers.

**STANDARD B**

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

- \_\_\_\_\_ Solve problems through number stories.
- \_\_\_\_\_ Create number stories using physical modes/manipulatives.

**STANDARD C**

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

- \_\_\_\_\_ Explore addition and subtraction concepts using physical models.
- \_\_\_\_\_ Estimate number of objects.

**STANDARD D**

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

- \_\_\_\_\_ Compare sets using more, less, and same (equal).
- \_\_\_\_\_ Compare and contrast sizes.

## 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.**

- \_\_\_\_\_ Explore measuring length, distance, volume and weight using non-standard units.
- \_\_\_\_\_ Identify penny and nickel. Explore dime and quarter.
- \_\_\_\_\_ Explore units of time: hour, day, week, month, year.

### 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.**

- \_\_\_\_\_ Identify a clock and calendar as appropriate measures of time.

## 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.**

- \_\_\_\_\_ Explore sets of objects using physical models.
- \_\_\_\_\_ Explore matching sets of objects in a one-to-one correspondence.
- \_\_\_\_\_ Match sets of objects and numbers 0 to 20.
- \_\_\_\_\_ Explore mathematical symbols +, - and =.

### STANDARD B

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

- \_\_\_\_\_ Sort objects based on two or more characteristics.
- \_\_\_\_\_ Compare sets using more, less and same (equal).
- \_\_\_\_\_ Identify and complete number patterns with physical models.

### STANDARD C

**Solve problems using systems of numbers and their properties.**

### STANDARD D

**Using algebraic concepts and procedures to represent problem solving.**

## **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 circle, square, triangle and rectangle.

### **STANDARD B**

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

\_\_\_\_\_ Sort objects based on two or more characteristics.

\_\_\_\_\_ Explore similarities and differences of shapes.

\_\_\_\_\_ Explore symmetry.

### **STANDARD C**

**Construct convincing arguments and proofs to solve problems.**

### **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.**

\_\_\_\_\_ Construct and interpret simple graphs.

### **STANDARD B**

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

### **STANDARD C**

**Determine, describe and apply the probabilities of events.**