

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

GRADE 3

## State Goal 6 Numbers Sense and Computation

*The students will be able to demonstrate and apply a knowledge and sense of numbers, including numeration and operations (addition, subtraction, multiplication, division), patterns, ratios, and proportions.*

### STANDARD A

**The students will be able to demonstrate knowledge and use of numbers and their representations in a broad range of theoretical and practical settings.**

- \_\_\_\_\_ Identify, read, write, compare, and model numerals to at least 100,000,000.
- \_\_\_\_\_ Demonstrate place value to 9-digits and explore to 12-digits.
- \_\_\_\_\_ Demonstrate expanded notation to the hundred-thousand.
- \_\_\_\_\_ Create common fractions.
- \_\_\_\_\_ Explore concept of decimal numbers through money applications.

### STANDARD B

**The students will be able to investigate, represent, and solve problems using number facts, operations (addition, subtraction, multiplication, division) and their properties, algorithms, and relationships.**

- \_\_\_\_\_ Add and subtract with 4-digit numbers and regrouping.
- \_\_\_\_\_ Multiply and divide facts through 9's.
- \_\_\_\_\_ Multiply 2-digits times 2-digit.
- \_\_\_\_\_ Divide 2-digits by 1-digit and 2-digit with and without remainders.
- \_\_\_\_\_ Explore adding and subtracting decimals with money applications.
- \_\_\_\_\_ Make change up to \$100.00.
- \_\_\_\_\_ Solve story problems with two or more operations.

### STANDARD C

**The students will be able to compute and estimate using mental mathematics, paper-and-pencil methods, calculators, and computers.**

- \_\_\_\_\_ Demonstrate mental math strategies with addition, subtraction, multiplication, and fractions.
- \_\_\_\_\_ Explore non-traditional problem solving (guess and check, draw a picture, make a chart, make a model, etc.)
- \_\_\_\_\_ Estimate solutions to addition, subtraction, and multiplication problems.
- \_\_\_\_\_ Round to the nearest ten-thousand.

### STANDARD D

**The students will be able to solve problems using comparison of quantities, ratios, proportions, and percents.**

- \_\_\_\_\_ Explore converting fractions to decimals using a calculator and paper and pencil.
- \_\_\_\_\_ Explore relationship of percents and fractions.

## State Goal 7 Measurement

*The students will be able to estimate, make, and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.*

### STANDARD A

**The students will be able to measure and compare quantities using appropriate units, instruments, and methods.**

- \_\_\_\_\_ Measure length, distance, weight, volume, and temperature using customary and metric units.
- \_\_\_\_\_ Identify and express values to \$1,000.00.
- \_\_\_\_\_ Tell time to nearest minute on digital and dial clocks.

### STANDARD B

**The students will be able to estimate measurements and determine acceptable levels of accuracy.**

### STANDARD C

**The students will be able to select and use appropriate technology, instruments and formulas to solve problems, interpret results, and communicate findings.**

- \_\_\_\_\_ Tell time to the nearest minute on digital and dial clocks.
- \_\_\_\_\_ Use standard time measurements (e.g., days, weeks, months, years, seasons, and decades).
- \_\_\_\_\_ Read a calendar.
- \_\_\_\_\_ Compute perimeter, area, and volume.

## State Goal 8 Algebra

*The students will be able to use algebraic and analytical methods to identify and describe patterns and relationships in data, solve problems, and predict results.*

### STANDARD A

**The students will be able to describe numerical relationships using variables and patterns.**

- \_\_\_\_\_ Use mathematical symbols such as +, -, x, =, <, and >.
- \_\_\_\_\_ Explore concept of variable by using letters to represent objects or attributes.

### STANDARD B

**The students will be able to interpret and describe numerical relationships using tables, graphs, and symbols.**

- \_\_\_\_\_ Identify and complete number and geometric patterns with and without physical models.
- \_\_\_\_\_ Find missing terms in equations:  $\_ + 3 = 10$ .

### STANDARD C

**The students will be able to solve problems using systems of numbers and their properties.**

- \_\_\_\_\_ Explore set concepts including empty sets, equivalent and non-equivalent sets, and subsets.
- \_\_\_\_\_ Explore commutative and associative properties and identity element.

### STANDARD D

**The students will be able to use algebraic concepts and procedures to represent and solve problems.**

- \_\_\_\_\_ Explore ordered pairs on a one quadrant coordinate system.
- \_\_\_\_\_ Find missing terms in equations, addends and subtrahends.

## State Goal 9 Geometry

*The students will be able to use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes, and space.*

### STANDARD A

**The students will be able to demonstrate and apply geometric concepts involving points, lines, planes, and space.**

- \_\_\_\_\_ Explore two dimensional versus three dimensional shapes.
- \_\_\_\_\_ Identify polygons with 3, 4, 5, 6, and 8 sides.

### STANDARD B

**The students will be able to identify, describe, classify, and compare relationships using points, lines, planes, and solids.**

- \_\_\_\_\_ Identify attributes of solids, e.g., faces, edges, and vertices.
- \_\_\_\_\_ Identify congruence and similarity of plane figures.
- \_\_\_\_\_ Create shapes and designs which have one or more lines of symmetry.

### STANDARD C

**The students will be able to construct convincing arguments and proofs to solve problems.**

### STANDARD D

**The students will be able to use trigonometric ratios and circular functions to solve problems.**

- \_\_\_\_\_ Identify angles as obtuse, right, or acute.

## State Goal 10 Data Collection and Statistical Analysis

*The students will be able to collect, organize, and analyze data using statistical methods; predict results; and interpret uncertainty using concepts of probability.*

### STANDARD A

**The students will be able to organize, describe, and make predictions from existing data.**

- \_\_\_\_\_ Read, interpret, and construct simple graphs, tables, schedules, time lines, and charts.

### STANDARD B

**The students will be able to formulate questions, design data collection methods, gather and analyze data, and communicate findings.**

- \_\_\_\_\_ Develop and implement a plan for collecting and analyzing data.

### STANDARD C

**The students will be able to determine, describe, and apply the probabilities of events.**

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