

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

GRADE 2

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.

- _____ Read, write, order, and model numerals to 100,000 and explore to 1,000,000.
- _____ Use ordinals to twenty and beyond.
- _____ Demonstrate use of even/odd numbers.
- _____ Demonstrate expanded notation.
- _____ Demonstrate negative number's position is to the left of zero on a number line.
- _____ Create common fractions, e.g., halves, thirds, fourths, fifths, sixths, eighths and ninths.
- _____ Explore concept of decimal numbers through money applications and decimal bars.
- _____ Demonstrate place value through four-digits and explore to five digits.
- _____ Use mathematical symbols +, -, x, ÷, <, >, or =.

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.

- _____ Create and identify real-life problems selecting and using appropriate math operations (with and without manipulatives) in multiple step story problems.
- _____ Add and subtract decimal numbers through money applications and decimal bars.

STANDARD C

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

- _____ Demonstrate basic addition and subtraction facts for memorization to 18.
- _____ Add and subtract with two-digits exploring facts to 20 using place value and manipulatives.
- _____ Renaming in addition and subtraction with 2 and 3 digit numbers.
- _____ Explore multiplication facts for 2's, 3's, 5's.
- _____ Demonstrate division with pattern blocks.
- _____ Count by 3's, 4's, 5's, 6's, 7's, 8's, and 9's.
- _____ Demonstrate $\frac{1}{2}x$ = half of division facts.

STANDARD D

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

- _____ Write ratios to compare physical objects.
- _____ Explore the meaning of percent as per hundred.
- _____ Explore converting fractions to decimals.
- _____ 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 standard and non-standard measurement.
- _____ Identify and express values to a \$100.
- _____ Make change to \$100.00.
- _____ Tell time to the nearest five minute and one minute interval.
- _____ Calculate elapsed time.
- _____ Use standard time measurements, e.g., days, weeks, months, centuries, and seasons.

STANDARD B

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

- _____ Estimate solutions to addition, subtraction, and multiplication problems.
- _____ Round to nearest ten and hundred.
- _____ Demonstrate mental math strategies with addition, subtraction, multiplication, and fractions.

STANDARD C

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

- _____ Find perimeter and area of objects.

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.

- _____ Explore sets including empty sets, equivalent and non-equivalent sets, and subsets with physical models.
- _____ Use mathematical symbols +, -, x, , =, >, and <.
- _____ Explore concept of variable by using letters to represent objects or attributes.
- _____ Identify and complete number and geometric patterns with and without physical model.

STANDARD B

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

- _____ Identify and complete number patterns with and without physical models.

STANDARD C

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

- _____ Explore non-routine problem solving, e.g., guess and check, draw a picture, make a chart, etc.
- _____ Explore commutative and associative properties and identify element.

STANDARD D

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

- _____ Find missing terms in equations, e.g. addends, minuends, subtrahends, factors.

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.

- _____ Identify basic geometric shapes and solids to include: trapezoid, hexagon, octagon, parallelograms.
- _____ Explore polygons with 3, 4, 5, 6, and 8 sides to include right triangles, isosceles, tangrams.
- _____ Explore two dimensional versus three dimensional shapes.

STANDARD B

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

- _____ Explore geometric attributes, e.g. faces, edges, areas by squares and triangles, perimeter, and length.
- _____ Explore right triangles.
- _____ Create shapes and designs with one or more line of symmetry.

STANDARD C

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

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 and interpret simple graphs.

STANDARD B

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

- _____ Construct simple graphs.
- _____ Explore construction of schedules and tables.
- _____ 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.

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