

Students will be able to: NUMBER SENSE AND OPERATIONS

- Add, subtract, and skip count by ones, twos, fives and tens to 100.
- Skip count by 2, 5, and 10 up to at least 50 starting at any number.
- Count backward from 20.
- Identify and distinguish among multiple uses of numbers, including cardinal (*to tell how many*) and ordinal (*to tell which one is in an ordered list*), and numbers as labels and as measurements.
- Identify odd and even numbers on the 100 chart and determine if a set of objects has an odd or even number of elements.
- Know addition facts to 20 and related subtraction facts and use them to accurately solve problems.
- Double, add one, and add zero.
- Use fact families to understanding the inverse relationship between addition and subtraction.
- Demonstrate an understanding of the various meanings of addition and subtraction; addition as combination (*plus, combined with, more*); subtraction as comparison (*how much less, how much more*), equalizing (*how many more are needed to make these equal*), separation (*how much remaining*).
- Demonstrate an understanding of and the ability to use algorithms for addition (*two or three-digit numbers and 3 two-digit numbers*) and subtraction (*two or three-digit numbers*).
- Construct and solve addition sentences.
- Estimate, calculate, and solve problems involving addition and subtraction of two-digit numbers.
- Add up to 3 single-digit addends.
- Solve number problems using estimation, diagrams, and pictures.
- Create and solve story problems.
- Discuss and share solution strategies.
- Demonstrate understanding of place value by using manipulatives.
- Name and write in numerals whole numbers to 100 and identify place value.
- Compare whole numbers using terms and symbols. (*less than, equal to, greater than (<, >, =)*)
- Compare more and fewer and identify how many more and how many fewer.
- Identify the value of all US coins, and \$1, \$5, \$10, and \$20 bills. Find the value of a collection of coins and dollar bills and different ways to represent and amount of money up to \$5. Use appropriate notation.
- Identify and represent common fractions ( $1/2$ ,  $1/3$ ,  $1/4$ ) as parts of wholes, parts of groups, and numbers on the number line.
- Understand and demonstrate multiplication and division, such as equal groupings of objects and sharing equally.

Students will be able to: PATTERNS, RELATIONS, AND ALGEBRA

- Identify odd and even number sequences.
- Describe and create addition and subtraction numbers patterns. (*1, 4, 7, 10...or 25, 23, 21...*)
- Construct and solve open sentences that have variables ( $\text{€} + 7 = 10$ )
- Write number sentences using +, −, =, and/or > to represent mathematical relationships in everyday situations.
- Describe functions related to trading, including coin trades and measurement trades. (*5 pennies make 1 nickel*)

*Students will be able to:*

GEOMETRY

- Describe and draw attributes of 2 and 3 dimensional shapes. (*number of corners, edges, faces, and sides, recognize same size and shape*)
- Identify shapes that have symmetry.
- Recognize congruent shapes.
- Identify shapes that have been rotated (*turned*), reflected (*flipped*), translated (*slid*), and enlarged. Describe direction of translations. (*left, right, up, and down*)
- Predict and confirm the results of putting shapes together and taking them apart.
- Relate geometric ideas to numbers. (*seeing rows in an array as a model of repeated addition*)
- Identify parallel lines.

*Students will be able to:*

MEASUREMENT

- Use non-standard standard units of measurement to measure, compare, and represent common objects.
- Compare the length, weight, area, and volume of two or more objects by using direct comparison.
- Measure and compare common objects using metric and English units of length and measurement. (*centimeter and inch*)
- Select and correctly use the appropriate measurement tools. (*ruler, balance scale, thermometer*)
- Make and use estimates of measurement, including time, volume, weight, and area.
- Read and write time on analog and digital clocks to the hour, half hour, and quarter hour.

*Students will be able to:*

DATA ANALYSIS, STATISTICS AND PROBABILITY

- Use interviews, surveys, and observations to gather data about themselves and their surroundings.
- Organize, classify, represent, and interpret data using tallies, charts, tables, bar graphs, pictographs, and Venn diagrams; interpret the representations.
- Formulate inferences (*draw conclusions*) and make educated guesses (*conjectures*) about a situation based on information gained from data.
- Decide which outcomes of experiments are most likely.
- Investigate more likely, likely, and impossible outcomes.