

Skills and Concepts by Grade Level

Grade 1

Unit: Mathematical Thinking at Grade 1

(Introduction)

- Becoming familiar with a variety of mathematical materials and tools
- Counting, comparing, and combining quantities
- Recording solutions using pictures, numbers, and words
- Creating and exploring patterns
- Collecting, recording, representing, and explaining data

Unit: Building Number Sense

(The Number System)

- Counting and comparing quantities
- Addition combinations
- Finding the total of two (or more) quantities
- Recording strategies using pictures, numbers, and words
- Reading, writing, and sequencing numbers to 100
- Developing strategies for solving combining and separating story problems

Unit: Survey Questions and Secret Rules

(Collecting and Sorting Data)

- Identifying and describing attributes of various materials
- Sorting and categorizing data
- Collecting and keeping track of data
- Inventing and interpreting representations
- Exploring calendar features and the cyclical nature of the sequence of months
- Describing data quantitatively and qualitatively

Unit: Quilt Squares and Block Towns

(2-D and 3-D Geometry)

- Observing, describing, visualizing, and comparing 2-D and 3-D shapes and their characteristics
- Constructing and representing 2-D and 3-D shapes
- Developing vocabulary to describe 2-D and 3-D shapes
- Building a pattern by repeating a unit square
- Creating and using 2-D representations of 3-D shapes and objects
- Constructing 3-D shapes from 2-D shapes and representations
- Visualizing, describing, and comparing paths between two locations

Unit: Number Games and Story Problems

(Addition and Subtraction)

- Finding combinations of numbers up to about 20
- Finding the total of several single-digit numbers
- Developing strategies for combining and separating story problems
- Recording strategies using pictures, numbers, words, and equations
- Finding the total of several 2's, 4's, 5's, or 10's
- Reading, writing, and sequencing numbers to 100

Unit: Bigger, Taller, Heavier, Smaller

(Measuring)

- Developing language to describe and compare weights, capacities, and length
- Learning to weigh with a balance
- Developing and describing techniques for filling, comparing capacities, and measuring length
- Describing and comparing weights, capacities, and lengths through direct comparison and by measuring with nonstandard units, using a variety of approaches and tools
- Describing measurements that can't be measured in exact whole units
- Representing measurements using numbers, concrete materials, and pictures