Investigations in Number, Data, and Space®

Kindergarten Unit Summaries: 2nd Edition[1]

Who Is in School today?: Classroom Routines and Materials

This unit introduces the processes, structures, and materials that are important features of the kindergarten math curriculum. It also introduces routines, common to many kindergarten classrooms, that students will encounter regularly throughout the year. These routines include taking attendance, using the calendar to count and to keep track of time and events, counting sets of objects, and collecting and discussing data about the class. They offer reinforcement of number concepts that are central to the kindergarten curriculum.

Counting and Comparing: Measurement and The Number System 1

Students explore numbers through a variety of counting activities. They build knowledge of the counting sequence, use numerals to represent quantities, represent equivalent amounts, and develop skills for accurate counting. They also begin to compare quantities. As an introduction to linear measurement, students measure and compare the lengths of objects using direct comparison.

What Comes Next?: Patterns and Functions

In this unit, students investigate what makes a repeating pattern. They focus on attributes of objects and think about which attributes (i.e., size, color, shape, orientation) are important in the patterns they are making. Students work with simple and complex repeating patterns. They have many opportunities to copy, create, and extend repeating patterns using a variety of materials and common objects. They use patterns to determine what comes next and focus on the part, or unit, of a pattern that repeats.

Measuring and Counting: Measurement and the Number System 2

Students gain a deeper understanding of numbers and number relationships as they engage in activities in which they count, combine, and compare amounts. They develop visual images of numbers and solve problems in which they find different combinations of the same number. Students are introduced to addition and subtraction situations through story problem contexts. Work with linear measurement continues as students use nonstandard units to measure the length of objects and paths.

[1] This document applies to the 2nd edition of *Investigations* (2008, 2012). See http://investigations.terc.edu/CCSS/ for changes when implementing *Investigations and the Common Core Standards*.

Make a Shape, Build a Block: 2-D and 3-D Geometry

Students explore geometry using a variety of materials, including Geoblocks, pattern blocks, interlocking cubes and geoboards. They describe, sort, and compose and decompose two- and three-dimensional shapes. They think about shapes in their environment and match two-dimensional shapes to three-dimensional objects. The *Shapes* software is introduced as a tool for extending and deepening this work. This tool is designed for K–2 students to explore how different shapes go together, experiment with different sorts of geometric transformations (rotations, translation, reflection), explore patterning, and investigate symmetry.

How Many Do You Have?: Addition, Subtraction, and the Number System

Students continue to work with counting and number composition as they count sets of objects and find multiple combinations of the same number as they decompose numbers to 10. They use numbers and notation to describe arrangements of tiles and number combinations. Students continue to develop an understanding of the operations of addition and subtraction as they act out, model, solve story problems, and play games that involve combining or separating small amounts.

Sorting and Surveys: Data Analysis

This unit develops ideas about sorting and classifying, counting, representing, conducting a data investigation, and using data to solve a problem. In this unit, students sort objects according to common attributes, as well as sort data about their class. They collect, record, and represent categorical and numerical data about their class, and they carry out their own data investigation by collecting responses to their own survey questions.