



Grade 2 Unit Summaries: 2nd Edition¹

Counting, Coins, and Combinations: Addition, Subtraction, and the Number System 1

This unit focuses on counting and comparing quantities, composing and decomposing numbers, and understanding the operations of addition and subtraction. Students develop strategies for comparing, combining, and doubling quantities, as well as taking one quantity away. They also achieve fluency with three sets of addition combinations (10s, + 1, + 2). During this first unit of the year, students are introduced to several year-long classroom routines that offer regular practice with composing and decomposing numbers; developing visual images of quantities; counting, collecting, and analyzing data; and telling time.

Shapes, Blocks, and Symmetry: 2-D and 3-D Geometry

Students identify two- and three-dimensional shapes, focus on the properties of rectangles and rectangular prisms, and identify and create symmetrical designs. Students also achieve fluency with the doubles addition combinations.

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.

Stickers, Number Strings, and Story Problems: Addition, Subtraction, and the Number System 2

In this second number unit, students solve problems with multiple addends and consider whether order matters in addition. For example, does $7 + 4 + 3 + 6 = 7 + 3 + 4 + 6$? Students revisit addition and subtraction story problems, investigate even and odd numbers, and begin to make sense of counting by groups and place value (tens and ones). Work on addition combinations continues as students achieve fluency with the Near Doubles.

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*.

Pockets, Teeth, and Favorite Things: Data Analysis

Students engage in all the phases of data analysis as they pose questions, collect and sort information, and make representations of data as a way of sharing their findings with others. They work with Venn diagrams and line plots, and they read and interpret a variety of representations of numerical and categorical data. Students are also assessed on fluency with the +10 addition combinations.

How Many Floors? How Many Rooms?: Patterns, Functions, and Change

In this unit, students describe and represent ratios, use tables to represent and predict change, and work with numeric sequences as they construct and describe patterns. Students extend repeating patterns and determine which element of the pattern will be in a particular position.

How Many Tens? How Many Ones?: Addition, Subtraction, and the Number System 3

Students continue to build their understanding of place value (ones, tens, hundreds) as they compose and decompose numbers into tens and ones and work with contexts and models for the Base-10 number system. Students apply their work with place value as they play games that involve composing and decomposing 100 and solve addition and subtraction problems to 100. There is continuing work on developing coin equivalencies and combinations, developing visual images of numbers, and telling time.

Parts of a Whole, Parts of a Group: Fractions

Students investigate what fractions are and the many ways they can be represented and used. They identify fractions of a single object ($\frac{1}{2}$ of a square, $\frac{1}{4}$ of a rectangle, etc.) as well as find fractions of a set ($\frac{1}{2}$ of 12). Students begin to learn how fractions are expressed in words and represented using fraction notation.

Partners, Teams, and Paper Clips: Addition, Subtraction, and the Number System 4

This final number unit of Grade 2 is a culmination of the number and operations work students have done in Grade 2. Students refine their strategies for adding and subtracting numbers as they work toward developing fluency with addition and subtraction of two-digit numbers up to 100. They investigate and make generalizations about what happens when you add even and odd numbers. They learn the remaining single-digit addition combinations, achieving fluency with all single-digit addition combinations. Work continues with telling time, place value, and coin combinations.

Measuring Length and Time: Measurement

Students investigate linear measurement as it applies to length and distance. They work with a variety of linear units, including standard units of inches, feet, yards, centimeters, and meters. Students build on their work with telling time as they measure, record, and calculate duration of events using timelines and schedules.