



Grade 1 - Unit F - To 100 and Beyond

Unit Focus

The focus of this unit is on place value, deepening understanding of numbers to 120. Students will estimate, count, compare, add, and subtract two-digit numbers using models including the number line and sticks & bundles. Computation strategies, such as making "jumps" of 2s, 5s, and 10s on pathways develops students' problem solving ability. The use of coins is incorporated to further explore place value at the end of the unit.

Stage 1: Desired Results - Key Understandings

Standard(s)	Transfer
Standards - Common Core - Mathematics: 1 - Number & Operations in Base Ten - Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral. (CCSS.MATH.CONTENT.1.NBT.A.1) - Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: (CCSS.MATH.CONTENT.1.NBT.B.2) 10 can be thought of as a bundle of ten ones —called a ten. (CCSS.MATH.CONTENT.1.NBT.B.2A) - The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). (CCSS.MATH.CONTENT.1.NBT.B.2C) - Understand place value. - Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$. (CCSS.MATH.CONTENT.1.NBT.B.3) - Use place value understanding and properties of operations to add and subtract. - Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten. (CCSS.MATH.CONTENT.1.NBT.C.4)	<i>Students will be able to independently use their learning to...</i> T1 Represent situations using mathematical reasoning and symbols. T2 Apply models to solve problems.
	Meaning
	Understanding(s)
	Essential Question(s)
	<i>Students will understand that...</i> U1 Units of 1, 10, and 100 are fundamental elements of our number system (base ten) U2 Mathematicians make sense of quantities to represent situations mathematically. U3 Mathematicians create or use models to generalize, represent, and solve problems.
	<i>Students will keep considering...</i> Q1 How can I break a problem down into easier parts? Q2 What do the quantities mean? Q3 What model best represents this problem?
	Acquisition of Knowledge and Skill
	Knowledge
	Skill(s)
	<i>Students will know...</i> K1 Using models help visualize numbers, relationships, and combinations K2 Models allow for multiple mental pictures and representations of numbers. K3 The placement of digits in a number have specific meaning K4 Strategies and models for number combinations to 120
	<i>Students will be skilled at...</i> S1 Grouping and counting by tens and ones. S2 Grouping tens into hundreds. S3 Using models, sketches and numbers to add and subtract within 100. S4 Counting forward and backward by 1s, 2s, 5s, and 10s from a variety of starting points S5 Reading and write numbers to 120

Stage 1: Desired Results - Key Understandings

- Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. *(CCSS.MATH.CONTENT.1.NBT.C.5)*
- Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. *(CCSS.MATH.CONTENT.1.NBT.C.6)*
- Represent and interpret data.
- Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. *(CCSS.MATH.CONTENT.1.MD.C.4)*
- Mathematical Practices
- Reason abstractly and quantitatively. *(CCSS.MATH.MP.2)*
- Model with mathematics. *(CCSS.MATH.MP.4)*

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Analyzing: Examining information/data/evidence from multiple sources to identify possible underlying assumptions, patterns, and relationships in order to make inferences. *(POG.1.2)*

K5 Place value is based on groups of ten
K6 Vocabulary: estimate, greater than, hundreds, less than, ones, tens, add, addit(ion), compare, greater than, less than, sum or total, difference, digit, subtract(ion), two-digit number, zero, count back/on, distance, hundred, length, paces, backward, before/after, beginning, count, end, forward, section, fives, two, combination, equal parts, quarter, fourth, dime, penny, reasonable

S6 Adding and subtract 1-digit numbers to and from 2-digit numbers
S7 Comparing quantities to 120.