

Unit 5 Family Support Materials

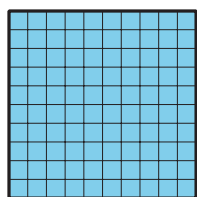
Numbers to 1,000

In this unit, students extend their understanding of the base-ten system to include numbers to 1,000.

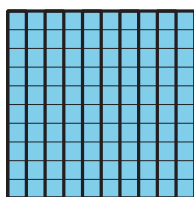
Section A: The Values of Three Digits

In this section, the hundreds unit is introduced. Students begin by looking at the large square base-ten block, and its corresponding base-ten drawing, to visualize 100, and to establish that 1 hundred equals 10 tens, which equals 100 ones.

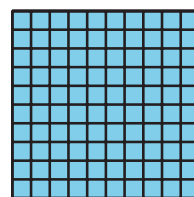
1 hundred



10 tens

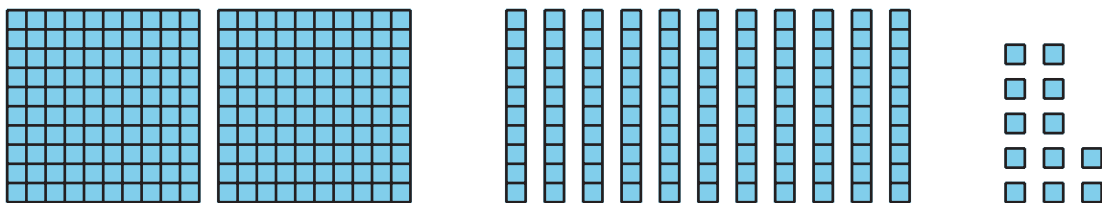


100 ones



After students develop an understanding of the hundred as a unit, students learn that the digits in three-digit numbers represent amounts of hundreds, tens, and ones. Students read and write three-digit numbers in different forms, including base-ten numerals, number names, and expanded form.

Students write expressions and equations, based on the base-ten blocks and base-ten drawings that they see. They recognize that the value of each digit in a three-digit number is revealed when using the fewest number of blocks to represent the number.



For example, the picture shows 2 hundreds, 11 tens, and 12 ones. Students recognize that they need to exchange 10 ones for 1 ten and 10 tens for 1 hundred to find the value of their number. After doing so, they recognize that they have 3 hundreds, 2 tens, and 2 ones for a value of 322.

Section B: Compare and Order Numbers within 1000

In this section, students continue to deepen their understanding of numbers to 1,000, using place-value understanding and the number line. As students recall the structure of the number line from the previous unit, they use this structure and place-value understanding to locate, compare, and order numbers on the number line.

As students locate or estimate the locations of three-digit numbers on number lines, they demonstrate an understanding of a number's relative distance from zero, as well as the place values of the digits. This understanding helps them to compare and order three-digit numbers. For example, to order numbers, students first can locate them on the number line. Then the numbers will be in order, from least to greatest, as students look from left to right on the number line.

In addition to using the number line to compare three-digit numbers, students also use familiar place-value representations,

such as base-ten blocks and base-ten diagrams. They compare and order numbers and write the comparisons, using the symbols, $>$, $<$, and $=$.

Try it at home!

Near the end of the unit, ask your second grader to think about the number 593 and complete these tasks:

- Write the number as a number name and in expanded form.
- Draw an amount of base-ten blocks with the same value.
- Create a number line, from 500 to 600, and place the number on a number line.
- Compare the number to 539, using $>$, $<$, or $=$.

Questions that may be helpful as they work:

- What is the same about your representations of 593? What is different?
- Can you draw a different combination of base-ten blocks instead?
- How did you decide which number was greater?

Solution:

- Five hundred ninety-three. $500 + 90 + 3$
- A representation of 593, using base-ten blocks.
- A representation of 593, using a number line.
- $593 > 539$ or $539 < 593$.

Sample response:

- All show that 593 has 5 hundreds, 9 tens, and 3 ones. All represent 593 in different ways, such as with words, numbers, or pictures.
- Instead of drawing 5 hundreds, 9 tens, and 3 ones, I can draw 5 hundreds, 7 tens, and 23 ones.
- First I compared the numbers of hundreds. Both have the same number of hundreds, so I looked at the tens place. I know that 593 is greater than 539 because 593 has 9 tens and 539 has 3 tens. 9 tens is greater than 3 tens.