

Numbers 10 - 20; Count to 100 by Ones and Tens

This module is a key next step for kindergarten students in understanding place value beyond the numbers 1-10. We will first talk about teen numbers as "10 ones and some ones," and extend that understanding to writing teen numbers. Finally, we will count to 100 by ones and by tens using various strategies.



New Terms and Strategies in this Module:

Counting to 100 in two different ways:

- regular counting by tens: "ten, twenty, thirty", etc.
- the "Say Ten" way of counting to 100: "1 ten, 2 tens, 3 tens", etc.

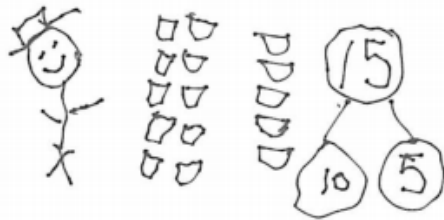
Hide Zero Cards - cards used to teach and reinforce place value concepts

10 ones and some ones - a way to talk about teen numbers that emphasizes groups of ten as the basic place value concept

Familiar Terms and Strategies in this Module:

"Say Ten" way of counting - e.g. "ten-one, ten-two, ten-three" instead of "eleven, twelve, thirteen"

Number bonds
Number towers
5-Group
Ten frame
Part/Whole/Total



Another way of showing that 10 ones and 5 more ones make 15, this time with tacos instead of smiley faces! Note the use of the number bond as well.

What Came Before this Module:

We made the exciting step of working with number bonds and other strategies to learn beginning addition and subtraction skills.

What Comes After this Module:

To wrap up the year, we will return to geometry. We will compose and decompose 2-dimensional shapes and lay the foundation for understanding area.

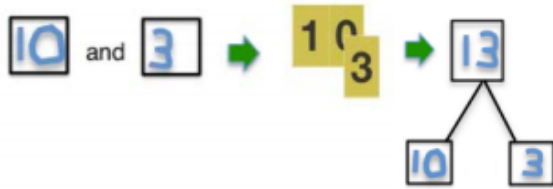
+ How you can help at home:

- Review and practice counting numbers up to 100, or as high as possible
- Talk about the numbers 11-19 with your student as "10 ones and ____ ones"
- Practice counting by ten in two ways: "ten, twenty, thirty" and "1 ten, 2 tens, 3 tens"

Key Common Core Standards:

- *Know number names and the count sequence*
 - Count to 100 by ones and by tens
 - Count forward beginning from a given number
 - Write numbers from 0 to 20; Represent a number of objects with a written numeral 0-20
- *Count to tell the number of objects*
 - Understand the relationship between numbers and quantities; connect counting to cardinality
 - Count to answer "how many?" questions about as many as 20 things arranged in various ways
- *Work with numbers 11-19 to gain foundations for place value*
 - Compose and decompose numbers from 11 to 19 into ten ones and some further ones

The yellow cards are hide zero cards. Digits are used to “hide the zero” in order to emphasize that, for example, 18 is made from a 10 and 8 ones - and the ten is still there as part of the number!



Spotlight on Math Strategies:

Hide Zero Cards

Students will frequently use these cards in the early years of *A Story of Units*.

A Story of Units has several key mathematical strategies that will be used throughout a student’s elementary years.

Hide Zero cards are a way of showing that even as we compose and create numbers larger than 10, the 10 is still there, always part of the number.

Thus, we start with the numerals for 10, and cover, or hide, the zero, to make a new number, e.g. 10 and 3 ones. Students’ concrete understanding, built up by counting and drawing physical objects, now moves toward a more abstract understanding of how the numbers 11-19 are created. They see the 10, and then the zero covered up to make a new number, but always with the understanding that 10 is a basic building block of that number. Number bonds, as above, are also used to reinforce this new understanding.

Sample Problem from Module 5: (Example taken from Lesson 10)

Ms. Garcia is painting her fingernails. She has painted all the nails on her left hand except her thumb. How many more nails does she need to paint? How many will she have left to paint after she paints her left thumb? Draw a picture to help you.



Notice how the student first numbered the left hand nails, then started counting again at 1 with the thumb and on to the other hand.