

Count by Tens

Grade 1

Lesson 110

Relevant Chapters in the *Digi-Block Comprehensive Teacher's Guide*:

Book I: Unit 2-5: Grouping by Tens to Count, pp. 48-49

Unit 2-6: Seeing Patterns in the Count, pp. 50-52

Book II: Unit 2-5: Seeing Patterns in the Count, pp. 41-44

Lesson Overview

Students start with a collection blocks (1-9) on a Place mat. They add ten blocks at a time and set the digit cards. Students record each count by tens sequence.

Objectives

Thinking Skills: Students find patterns in the digits as they add and count by tens.

Mastery Skills: Students learn to count by tens from single-digit numbers.

Materials

Each group of 2-3 students needs:

- 1 Place mat with digit cards
- Access to a tub with at least 20 blocks-of-10, 20 single blocks, and 4 medium holders
- 1 "Count by Tens - Version A" activity sheet

Class Introduction

(15-20 minutes)

Hand out Place mats, digit cards, and blocks to students. Have students put 3 single blocks on their mat and set the digit cards. Ask students to:

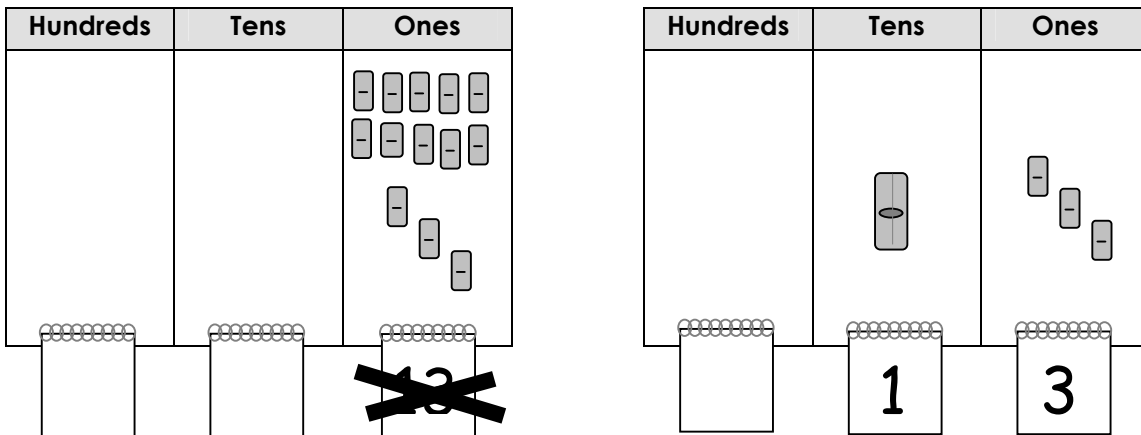
- Predict what they think they will have if they add ten more blocks to their Place mat.
- Set their digit cards to show their prediction.

After students predict, have them add ten blocks to their mats. Let them decide how to do this:

- They can add 10 single blocks.
- Or, they can add 1 block-of-10.
- It is important for students to discover that both methods yield the same results. Some students may need to add ten single blocks for a long time before they are ready to use blocks-of-10.

Ask students to set their digit cards to match the number of blocks on their mat. When they do this step, students who added 10 single blocks will:

- Notice that there is no "13" on a single digit card.
- Have to pack a block-of-10 and move it into the tens place.

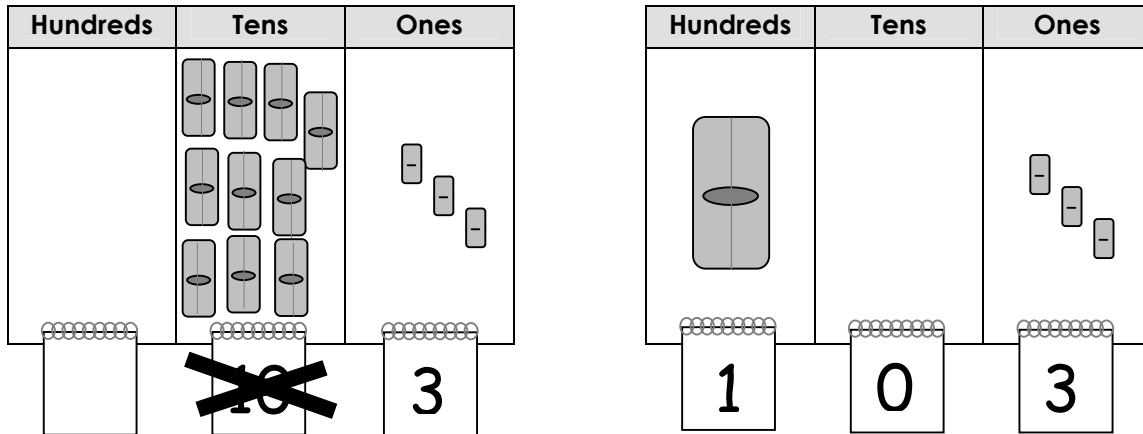


Students should have 1 block-of-10 and 3 ones on their mats.

Repeat with more predictions. Have students add ten blocks again and again to their mats. Record the sequence of numbers as students predict and add ten blocks to their mat:

3, 13, 23, 33, 43, 53, 63, 73, 83, 93...

Have students go beyond 100:



Continue recording the sequence while students add ten blocks to numbers beyond 100:

...93, 103, 113, 123, 133, 143, 153, 163, 173, 183, 193, 203

Activity

(15 - 20 minutes)

Students start with the number of blocks indicated on the activity sheet. They record each answer as they add ten blocks to their mats and set the digit cards.

For the last problem, students choose the starting number. You may want to ask students to select their number before they begin this activity.

While students are adding tens, walk around and ask students to:

- Predict the next number.
- Explain their thinking.
- Describe any patterns they see.

Closure

(10 - 15 minutes)

Together as a class, count aloud by tens in order to practice the tens words. Write the multiples of 10 on the board starting with 0:

0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, ...

Have students lead the count by tens from various starting numbers. Record the sequences so students can see:

6, 16, 26, 36, 46, 56, 66, 76, 86, 96, 106, 116

Discuss patterns:

- The digit in the ones place always stays the same.
- The digit in the tens place increases by one each time, so it goes from 0 to 9 and back again.
- The number words have the similar sounds no matter where you start (i.e., the sequence "twenty-three, thirty-three" has the same sounds for the parts of the words that indicate the tens as the sequence "twenty-six, thirty-six").

Assessment

As students are using blocks and counting by tens, observe and note:

Do they -

- Add ten single blocks or 1 block-of-10?
- Accurately predict the next number in the sequence?
- Know how and when to pack and move the block-of-100?
- Discover a pattern?
- Count by tens with ease? From any starting number?

Look at the activity sheet, did students:

- Accurately record each counting number in sequence?

Extensions

- Have students use the "Count by Tens - Version B" activity sheets. Model how to record the count by tens sequence vertically. For many students the vertical orientation helps them "see" the pattern in the digits more clearly.
- Have students remove ten blocks at a time starting with 2-digit numbers and then 3-digit numbers.