

16. Train of Tens (36)

- COUNT BY ONES
- BEGIN COUNTING BY TENS TO 30

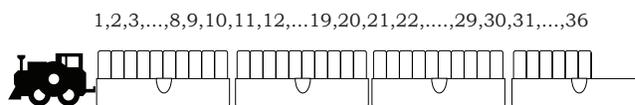
TEACHER NEEDS:
train of 36 blocks

 25 minutes

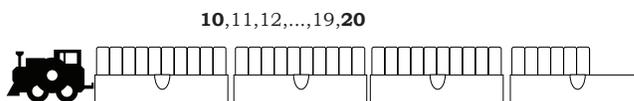
TEACHER NOTE:
Repeat this lesson with
increasing numbers
throughout the year.

GROUP ACTIVITY:

1. Ask students to name the biggest number they know.
2. Ask if they think they can count from one all they way to that number.
3. Explain to students that we have shortcuts for counting to big numbers. For example, to count to 100, we may want to count by tens because it will be faster than counting by ones. “Today, we will begin to learn how to count by tens.”
4. Position a train of 36 blocks where children can see it and so that the “front” of the train is to their left.
5. Starting at the “front” of the train, point to each block individually as the class counts the blocks out loud by ones.



6. Explain that the class is going to count the blocks again by ones. However, this time, each time you point to the last block in a holder, the students should do a special hand signal or clap as they say each multiple of ten.
7. Count the blocks by ones again, this time clearly emphasizing the last block in each holder. (1, 2, 3, 4, 5, 6, 7, 8, 9, **10**, 11, 12, 13, 14, 15, 16, 17, 18, 19, **20**, 21, 22...).
8. Recount a third time by pointing to the last block in the first holder and asking, “What number is this?” (10) “Do we need to start with one?” (no) “We can skip to 10.”



9. From the 10th block, point to the 11th block and start counting on from 10. This time emphasize the 20.

10. On the fourth count, point to the 10th block (10) and skip count to the 20th block (20) and count on from 20. (10, 20, 21, 22,...)
11. On the fifth count, extend the skip count to 30. (10, 20, 30, 31, 32,...)
12. On the final count, point to the end of each holder as the class counts by tens. (**10, 20, 30**)
13. When you get to the end of the last full holder (30), emphasize switching to counting by ones (31, 32, 33, 34, 35, 36). A very common mistake is that students will continue counting by tens as they count the single blocks in the last holder. When this happens, ask, “Where would the 40th block be?” Prompt students to realize it would be the last block in the incomplete holder.
14. Repeat counting the train this way several times (10, 20, 30, 31, 32, 33, 34, 35, 36).
15. Point out that when you count this way, you’re skipping the numbers between 10 and 20, 20 and 30, etc. This is called **skip counting**.
16. Ask students if they get the same answer when they count all of the blocks by ones and when they count the full cars by tens. (Yes) Point out that counting the full cars by tens is faster than counting the whole train by ones.
17. Make a new train of 44 and repeat the steps.

Assessment:

DOES THE STUDENT:

- count aloud by tens and by ones correctly

Differentiation:

REINFORCEMENT:

- Allow students time to count many trains repeatedly by ones. When they are very comfortable and accurate with this process, ask, “Is there a faster way to count?” Point to the 10th block and ask, “What block is this?” Prompt them to name the 20th and 30th blocks.

EXTENSION:

- Divide class into several small groups. Each group makes a train. As a class, count each train in unison at least twice.
- Ask students to build and to count a train independently.