

# 14. Train of Tens (36)

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- COUNT BY ONES
- BEGIN COUNTING BY TENS

## TEACHER NEEDS:

36 single blocks  
4 small holders  
bell (optional)

## EACH SMALL GROUP (4 STUDENTS) NEEDS:

40 blocks  
4 small holders

 25 minutes

## GROUP ACTIVITY:

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1. Place a large pile of 36 single blocks on the floor or on a table.
2. Ask students how they could count the blocks. If necessary, prompt them to make a train with the blocks, mentioning that trains help keep the blocks organized when counting.
3. Have volunteers pack the blocks to make a train. Position the train so that the “front” of the train is to the left.
4. Starting at the “front” of the train, point to each block individually as the class counts the blocks out loud by ones.
5. 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 (such as touch their nose, or raise both hands in the air) as they say each multiple of ten.
6. Again, count the blocks by ones, 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...). Optional: Consider adding a sound signal, such as ringing a bell, as the class says 10, 20, 30, etc.
7. Repeat, but this time tell the class you want them to remember which numbers they say when they do the special hand signal (or, optionally, hear the bell).
8. Start by pointing to the last block in the first holder and ask, “What number is this?” (10) “Do we need to start with one?” (no) “We can skip to 10.”
9. Point to the 11th block and start there. This time emphasize the 20. Count again - point to the 10th block (10) and then to the 20th (20) and count 10, 20, 21, 22,... Do again starting with 10, 20, 30, 31, 32,...
10. Point to the end of each holder as the class counts by tens. (10, 20, 30)

11. 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. If this happens, ask, “Where would the 40th block be?” Prompt students to realize it would be the last block in the incomplete holder. Then return to the beginning of the train and count it by ones, emphasizing the count of the blocks in the last holder. Then count the train by tens again, gesturing to emphasize the switch between counting by tens and ones.
12. Repeat counting the train this way several times (10, 20, 30, 31, 32, 33, 34, 35, 36).
13. 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.
14. 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.
15. Make a new train of 44 and count it out loud together by ones.
16. Count it out loud together by tens. (10, 20, 30, 40, 41, 42, 43, 44) Repeat several times.
17. Divide into several small groups.
18. Each group makes a train.
19. As a class, count each train in unison at least twice.

*Assessment:*

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DOES THE STUDENT:

- count aloud by tens and by ones correctly

*Differentiation:*

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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:

- Ask students to build and to count a train independently.