

# 68. A Very Long Train - Counting by 10's to Numbers Greater than 100!

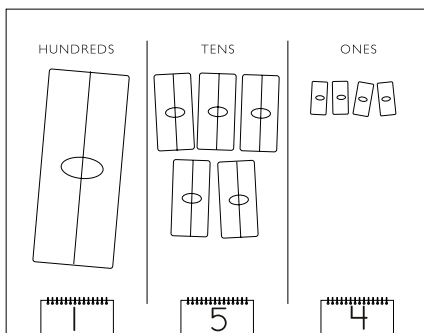
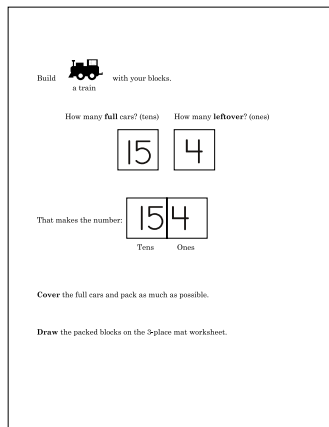
- COUNTING BY 10'S TO NUMBERS GREATER THAN 100
- PACKING TO COMPARE THE TRAIN OR LINEAR VIEW OF A NUMBER TO THE BASE TEN VIEW

STUDENT GROUPS OF 3 NEED:  
 131-169 single blocks  
 small holders  
 digit flip cards  
 3-place mat

EACH STUDENT NEEDS:  
 worksheets

TEACHER NEEDS:  
 train of 153

 30 minutes



Answers will vary.

HELPFUL HINTS:  
 The student activity can be done individually if your classroom has sufficient blocks for each student.

GROUP ACTIVITY:

1. Have ready in advance a train of 153 where all can see it. Point to the train of 153 and ask how many. Allow students time to count silently or to come up with a strategy to determine how many before calling on a volunteer. Some students may not be able to come up with an answer, but all should come up with a strategy. (Count each block, count the full cars by 10's, cover the full cars, pack and organize the blocks...)
2. Explain to the students that they are going to practice counting numbers that go over 100 by 10's. The transition from 100 to 110 is the crucial step where students may have trouble. Count the train of 153 several times in unison with the students. Some students may still stumble after 150 and say the next block is 160. Point to the end of the car and ask what block would be at the end of the car. (160) Go back to 150 and ask, "If you had 150 apples, and someone gave you 1 more, how many apples would you have?" (151) Students count the train from there, 151, 152, 153. Fill in the blanks in the worksheet to show the numbers you used when counting. (10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 151, 152, 153)
3. Ask a volunteer to cover the full cars, to pack the blocks as much as possible and to organize the blocks and set the digit cards. Fill out the worksheet to model what the students will do when they are working on their own.
4. Point to the last counting number (153). Ask how that number compares to the digit cards. (153) They are the same; 153 ones is the same as 1 block-of-100 (100), 5 blocks-of-10 (50) and 3 ones (3).

INDEPENDENT WORK:

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1. Give each student or group a container of 131 – 169 blocks. Ask them to build a train with the blocks and to count the blocks by 10's and to record the numbers they say as they count. Each student should have their own worksheet even though the information will be the same for each group member.
2. Students pack the blocks and organize them on the 3-place mat.
3. Students draw what the packed blocks look like and fill in the digit cards.

GROUP WRAP-UP:

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Use a student's worksheet as an example. Point to the boxes for tens and ones on the first worksheet or use the train of 153 from the introduction to the lesson.

15	3
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Point to the three digit cards on the second worksheet and ask what happened to the 15 tens. (10 of them became a block-of-100.)

1	5	3
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*Assessment:*

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DOES THE STUDENT:

- count by 10's to numbers greater than 100
- fill in the multiples of 10 correctly
- make the appropriate transition from counting by 10's to counting by 1's
- draw the packed blocks and set the digit cards correctly

*Differentiation:*

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REINFORCEMENT:

- Work with a small group and do all the steps and the counting together.
- Give each child a copy of the hundreds chart so that they have a model for the counting numbers they are using.

EXTENSION:

- Ask students to draw what the train will look like if they cover the full cars, pack as much as possible, organize the blocks and fill in the digit cards before they do that step. After they have drawn their prediction, they do the steps and check to see if they predicted correctly.

Name: \_\_\_\_\_

Build  with your blocks.  
a train

How many **full** cars? (tens)

How many **leftover**? (ones)

That makes the number:

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Tens

Ones

**Cover** the full cars and pack as much as possible.

**Draw** the packed blocks on the 3-place mat worksheet.

Name: \_\_\_\_\_

HUNDREDS

TENS

ONES

