

## Count Around the Room

Adapted from [Contexts for Learning, Mini-lessons for Extending Addition and Subtraction](#)

### What is “Count Around the Room” and what is the purpose?

“Count Around the Room” provides scholars with an opportunity to familiarize themselves with the names and sequence of numbers while also encouraging scholars to notice patterns in sequences and make predictions on how a pattern might continue. During “Count Around the Room” scholars count or skip-count by a given amount, each scholar saying one number. After scholars have gone around the room, they then discuss the patterns they noticed in the resulting number sequence.

### What is the structure?

“Number Strings” Mini-lesson Structure	
Launch	1 minute
Have the class sit in a circle. Tell scholars the start number and how they are going to count (by 1's, 2's, 5's, 10's, etc — in older grades this may also include fractions).	
Activity	3 minutes

Starting with the first person, each scholar says a number. Continue to go around the circle.

Stop pointing as you go, holding scholars accountable to know when it is their turn.

As scholars count, record their numbers vertically on the chart paper — recording vertically will help scholars notice patterns during the discourse.

Stop at select points to ask purposeful questions and make predictions — this will help keep scholars engaged in thinking about counting. Ask scholars to consider what number comes next and how they know.

Discourse

10 minutes

Pose the following questions for scholars to discuss.

- What do you notice?
- Why do you think that happens?
- Will this always happen?
- Do you agree or disagree? Why?

Possible conjectures:

- Counting patterns - the numbers 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 repeats
- Place value patterns
  - For example: In Base 10, each place is worth 10 times the place to its right. Adding 10 tens, for example, is the same as adding 1 hundred.

Exit Ticket

1 minute

Write down a few numbers and ask scholars to fill in the blank— include counting by 1s, 2s, 5s, and 10s. To vary the format of these questions:

Make it a story problem or list the numbers vertically and horizontally.

Ask scholars how they know and can they identify the pattern.

### What are the top instructional moves for this Mini-lesson?

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- Focus on patterns, structure, and place value. Question scholars about how and why digits change or stay the same. Then press them to explain these patterns using what they know about place value. This minilesson is *not* a fluency exercise that teaches number sequence/number names.
- Use purposeful numbers: Choose your starting number and what you count by purposefully. Use scholar data and observations from work study to inform your choices. For example, if scholars are having trouble working with numbers that extend to the thousands place, purposely start with a number in the hundreds and count up to a four-digit number so that scholars can see that place value patterns continue even as numbers get bigger.
- Record scholar thinking: As scholars discuss noticings and patterns in counting, record their thinking, including any conjectures.
- Prepare a chart with two vertical columns. One column labeled decimals, the other labeled fractions.
- First Count by multiples of one tenth starting with one tenth. Be sure to record what each scholar says, including a variety of decimal and fraction notation and As scholars are counting, stop and discuss:
  - What patterns do you notice?
  - How else could we say/write this number?
  - How many wholes are there in ten tenths? How do you know?
  - Is 2.4 (make sure to read as two and four tenths) the same as 24 tenths? Convince me.
    - Then, count by hundredths starting with  $\frac{1}{100}$
    - Record two columns on chart paper: one column indicating the fraction and another indicating the decimal.

- After a scholar says  $10/100$ , scholars turn and talk about how that should be represented as a decimal. Discuss why it's 0.1 or 0.10 rather than 0.010. Use visual models as necessary.
- Continue counting around the room, pausing to quickly discuss representation as necessary.
- Record the hundredths in another two columns next to the tenths.
- If these first two are easy and scholars are able to complete them quickly, announce you'll count by  $3/100$ , beginning with  $3/100$ .
- Guide the discussion after the count around the room to focus on the relationship between digits in the tenths place and the hundredths place. Scholars should be able to articulate that digits in the tenths place are worth ten times as much as in the hundredths place.

### Sample Count Around the Room lessons

- First, count by  $3/10$ , beginning with  $3/10$ 
  - Record two columns on chart paper: one column indicating the fraction and another indicating the decimal.
  - After a scholar says  $12/10$ , scholars turn and talk about how that should be represented as a decimal. Discuss why it's 1.2 rather than 0.12. Use visual models as necessary.
  - Continue counting around the room, pausing to quickly discuss representation as necessary.
- If the first routine goes quickly, Count around by  $11/1000$ 
  - Have scholars predict what number they'll say before beginning to count. As scholars count, the teacher records the decimal and fraction equivalent. Pause at 0.033, 0.110, and 0.143, and have scholars help you model these amounts with the blue place value blocks. Target any misconceptions you noted in Lesson 2. This lesson is not effective unless you record numbers as you are doing the routine so scholars can associate the number with the name.