

Just In Time Quick Check
Standard of Learning (SOL) 1.7a

Strand: Computation and Estimation

Standard of Learning (SOL) 1.7a

The student will recognize and describe with fluency part-whole relationships for numbers up to 10.

Grade Level Skills:

- Recognize and describe with fluency part-whole relationships for numbers up to 10 in a variety of configurations. (a)

Just in Time Quick Check

Just in Time Quick Check Teacher Notes

Supporting Resources:

- VDOE Mathematics Instructional Plans (MIPS)
 - [1.7a - Spin to Win with Combinations of 10](#) (Word) / [PDF Version](#)
 - [1.7a - Bears in Caves](#) (Word) / [PDF Version](#)
 - [1.7a - Cube Connections](#) (Word) / [PDF Version](#)
 - [1.7a - Kids on the Playground](#) (Word) / [PDF Version](#)
- VDOE Word Wall Cards: Grade 1 ([Word](#)) | ([PDF](#))
 - Addition
 - Subtraction
 - Related Facts
 - Number Sentence
 - Join
 - Separate
 - Compare
 - Part/Whole
- VDOE Instructional Videos for Teachers
 - [Strategies for Learning Basic Facts](#) (grades K-3)
 - [Using a Beaded Number Line](#) (grades K-3)

Supporting and Prerequisite SOL: [1.6](#), [K.4a](#), [K.4b](#)

SOL 1.7a - Just in Time Quick Check: Student Interview

Teacher Note: Provide the student with 10 counters. Note, when 'hiding' the counters, it is important that students are not able to see the number of counters being hidden.

- 1) Ask the student to give you 6 of the counters.
 - a) Show the student the set of 6 counters, take 2 of the counters and hide them under a plate or piece of paper. Show them the remaining counters and ask, "How many are hiding?"
 - b) Show the student the set of 6 counters again, now take 1 of the counters and hide it under a plate or piece of paper. Show them the remaining counters and ask, "How many are hiding?"
 - c) Show the student the set of 6 counters again, now take 3 of the counters and hide them under a plate or piece of paper. Show them the remaining counters and ask, "How many are hiding?"
 - d) Show the student the set of 6 counters again, now take 5 of the counters and hide them under a plate or piece of paper. Show them the remaining counter and ask, "How many are hiding?"
 - e) Show the student the set of 6 counters again, now take 6 of the counters and hide them under a plate or piece of paper. Show them the remaining counter (zero) and ask, "How many are hiding?"
 - f) If the student answers 1a-1e correctly (without using their fingers or counting up), go to Task 2.
 - g) If at any point, the student answers incorrectly (or needs to use fingers to determine the answer), go to Task 3.
- 2) Ask the student to give you 7 counters.
 - a) Show the student the set of 7 counters, take 2 of the counters and hide them under a plate or piece of paper. Show them the remaining counters and ask, "How many are hiding?"
 - b) Show the student the set of 7 counters again, now take 1 of the counters and hide it under a plate or piece of paper. Show them the remaining counters and ask, "How many are hiding?"
 - c) Show the student the set of 7 counters again, now take 3 of the counters and hide them under a plate or piece of paper. Show them the remaining counters and ask, "How many are hiding?"

- d) Show the student the set of 7 counters again, now take 5 of the counters and hide them under a plate or piece of paper. Show them the remaining counters and ask, “How many are hiding?”
 - e) Show the student the set of 7 counters again, now take 0 of the counters and hide them under a plate or piece of paper. Show them the remaining counters and ask, “How many are hiding?”
 - f) If the student answers 2a-2e correctly (without using their fingers or counting up), repeat this Task with 8, 9 and 10 counters (as appropriate).
 - g) If at any point, the student answers incorrectly (or needs to use fingers to determine the answer), end the Quick Check here.
- 3) Ask the student to give you 5 counters.
- a) Show the student the set of 5 counters, take 2 of the counters and hide them under a plate or piece of paper. Show them the remaining counters and ask, “How many are hiding?”
 - b) Show the student the set of 5 counters again, take 4 of the counters and hide them under a plate or piece of paper. Show them the remaining counter and ask, “How many are hiding?”
 - c) Show the student the set of 5 counters again, take 1 of the counters and hide it under a plate or piece of paper. Show them the remaining counters and ask, “How many are hiding?”
 - d) Show the student the set of 5 counters again, take zero of the counters to hide under a plate or piece of paper. Show them the remaining counters and ask, “How many are hiding?”
 - e) End the Quick Check here.

SOL 1.7a - Just in Time Quick Check Teacher Notes

Common Errors/Misconceptions and their Possible Indications

- 1) Ask the student to give you 6 of the counters.
 - a) Show the student the set of 6 counters, take 2 of the counters and hide them under a plate or piece of paper. Show them the remaining counters and ask, “How many are hiding?”
 - b) Show the student the set of 6 counters again, now take 1 of the counters and hide it under a plate or piece of paper. Show them the remaining counters and ask, “How many are hiding?”
 - c) Show the student the set of 6 counters again, now take 3 of the counters and hide them under a plate or piece of paper. Show them the remaining counters and ask, “How many are hiding?”
 - d) Show the student the set of 6 counters again, now take 5 of the counters and hide them under a plate or piece of paper. Show them the remaining counter and ask, “How many are hiding?”
 - e) Show the student the set of 6 counters again, now take 6 of the counters and hide them under a plate or piece of paper. Show them the remaining counter (zero) and ask, “How many are hiding?”
 - f) If the student answers 1a-1e correctly (without using their fingers or counting up), go to Task 2.
 - g) If at any point, the student answers incorrectly (or needs to use fingers to determine the answer), go to Task 3.

Students who have to count to determine the number of counters shown or the number of counters missing are not yet able to flexibly decompose numbers to 6. It is important to determine which numbers students are able to decompose easily and which number represents their threshold (often referred to as ‘their working number’). All students need additional experiences using a variety of concrete materials to represent parts of numbers just under and at their current threshold. Sample activities could include building trains of six with two different colors of counters and naming the parts, creating number arrangements using tiles in two different colors, creating toothpick arrangement pictures, dot cards wherein students identify and represent parts of numbers contained within numbers, and shake-and-spill activities. Story problems with real-life contexts, represented with concrete objects on story boards, help to build a deep understanding. Understanding that one number is contained within another, seeing and being able to describe the parts of numbers, is foundational to developing fluency.

- 2) Ask the student to give you 7 counters.
 - a) Show the student the set of 7 counters, take 2 of the counters and hide them under a plate or piece of paper. Show them the remaining counters and ask, “How many are hiding?”

- b) Show the student the set of 7 counters again, now take 1 of the counters and hide it under a plate or piece of paper. Show them the remaining counters and ask, “How many are hiding?”
- c) Show the student the set of 7 counters again, now take 3 of the counters and hide them under a plate or piece of paper. Show them the remaining counters and ask, “How many are hiding?”
- d) Show the student the set of 7 counters again, now take 5 of the counters and hide them under a plate or piece of paper. Show them the remaining counter and ask, “How many are hiding?”
- e) Show the student the set of 7 counters again, now take 0 of the counters and hide them under a plate or piece of paper. Show them the remaining counters and ask, “How many are hiding?”
- f) If the student answers 2a-2e correctly (without using their fingers or counting up), repeat this Task with 8, 9 and 10 counters (as appropriate).
- g) If at any point, the student answers incorrectly (or needs to use fingers to determine the answer), end the Quick Check here.

Students who were flexible in decomposing to six may not be able to easily name the missing parts for 7 without counting. This is an indication that their threshold, or working number is six. These students will need additional experiences in recognizing and describing parts to 7. They will not be able to recognize small groups within larger groups until they recognize small groups. Students will benefit from number routines that allow them to hear classmates describe the parts they see in the given number. For suggested instructional activities, refer to the Mathematics Instructional Plans listed in the resource section of this Quick Check.

- 3) Ask the student to give you 5 counters.
 - a) Show the student the set of 5 counters, take 2 of the counters and hide them under a plate or piece of paper. Show them the remaining counters and ask, “How many are hiding?”
 - b) Show the student the set of 5 counters again, take 4 of the counters and hide them under a plate or piece of paper. Show them the remaining counter and ask, “How many are hiding?”
 - c) Show the student the set of 5 counters again, take 1 of the counters and hide it under a plate or piece of paper. Show them the remaining counters and ask, “How many are hiding?”
 - d) Show the student the set of 5 counters again, take zero of the counters to hide under a plate or piece of paper. Show them the remaining counters and ask, “How many are hiding?”
 - e) For students who struggle with 5 counters, use the same questions for the number 4.

f) End the Quick Check here.

Some students are not yet able to identify missing parts to 5 without counting. These students will need many experiences taking numbers apart and putting them back together in various ways, which builds awareness that quantities do not change when broken apart and recombined in other ways (i.e., 5 counters can be broken apart into 4 counters and 1 counter, just as it can be broken into 2 counters and 3 counters). Knowing parts to 5 is dependent upon knowing parts within 5.

In addition to the activities referenced in this Quick Check, consider providing opportunities for students to build five frames with two different color counters and record the combinations that they build (e.g. 1 red counter and 2 yellow counters is 3 counters). Students at this level need opportunities to create these models (i.e., use pattern block cut outs or toothpicks of two different colors to build something). Students will also benefit from number routines that allow them to hear classmates describe how they see the parts in a given number.

Note that all students, regardless of their working number, will need many opportunities to build concrete representations of numbers in order to develop flexibility. Taking numbers apart and putting them back together in various ways and becoming aware that quantities do not change when broken apart and recombined in other ways are important in making sense of parts of a number. Refer to the resource links provided on page 1 for several instructional activities that will support the development of computational fluency.