

Just In Time Quick Check
Standard of Learning (SOL) K.4a

Strand: Number and Number Sense

Standard of Learning (SOL) K.4a

The student will recognize and describe with fluency part-whole relationships for numbers up to 5.

Grade Level Skills:

- Recognize and describe with fluency part-whole relationships for numbers up to 5 in a variety of configurations.

Just in Time Quick Check

Just in Time Quick Check Teacher Notes

Supporting Resources:

- VDOE Mathematics Instructional Plans (MIPS)
 - [K.4ab - Bears in Caves](#) (Word) / [PDF Version](#)
 - [K.4ab - Disappearing Parts](#) (Word) / [PDF Version](#)
 - [K.4ab - Fill, Shake, and Pour](#) (Word) / [PDF Version](#)
 - [K.4ab - Subitizing with Dot Cards](#) (Word) / [PDF Version](#)
- VDOE Word Wall Cards: Grade K ([Word](#)) | ([PDF](#))
 - Counting by ones
 - More than
 - Fewer than
- VDOE Rich Mathematical Tasks
 - [K.4ab – Picking Apples Task](#) (Word / [PDF](#))
- VDOE Instructional Videos for Teachers
 - [Developing Early Number Sense \(grades K-2\)](#)
 - [Using A Beaded Number Line \(grades K-2\)](#)

Supporting and Prerequisite SOL: [K.1a](#), [Foundation Blocks for Early Learning: Standards for Four-Year Olds – 1abc](#)*

*This links to the prerequisite standards found in Foundation Blocks for Preschool. Just in Time Quick Checks have not been created for Foundation Blocks.

SOL K.4a - Just in Time Quick Check: Student Interview

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

- 1) Ask the student to give you 4 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?"
 - a) If the student answers correctly (without using their fingers or counting up), go to 1(b).
 - b) Show the student the 4 counters again, now take 3 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) If the student answers 1a and 1b correctly, go to Task 2.
 - d) If the student answers 1a or 1b incorrectly (or uses fingers to determine answer), go to Task 3.

- 2) Ask the student to give you 5 counters. Take 4 of the counters and hide them under a plate or piece of paper. Show them the remaining counters and ask, "How many are hiding?"
 - a) If student answers incorrectly for (2a) or uses fingers to determine answer, end the Quick Check here.
 - b) If the student answers correctly (without using their fingers or counting up), show the student the 5 counters again, now 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?"
 - c) If the student answers correctly (without using their fingers or counting up), show the student the 5 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?"
 - d) If the student answers correctly (without using their fingers or counting up), show the student the 5 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?"
End the Quick Check here.

- 3) Ask the student to give you 3 counters. Take 2 of the counters and hide them under a plate or piece of paper. Show them the remaining counter and ask, "How many are hiding?"
 - a) If the student answers correctly (without using their fingers or counting up), show the student the 3 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?"
 - b) End the Quick Check here.

SOL K.4a - Just in Time Quick Check Teacher Notes

Common Errors/Misconceptions and their Possible Indications

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

- 1) Ask the student to give you 4 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?”
 - a) If the student answers correctly (without using their fingers or counting up), go to 1(b).
 - b) Show the student the 4 counters again, now take 3 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) If the student answers 1a and 1b correctly, go to Task 2.
 - d) If the student answers 1a or 1b incorrectly (or uses fingers to determine answer), go to Task 3.

Some students are not yet able to flexibly decompose numbers to 4 and are therefore unable to name the missing part. These students need additional experiences using a variety of concrete models that represent parts of numbers. Examples might include building trains of four with two different colors of counters and naming the parts, creating number arrangements using tiles in two different colors, toothpick arrangements, 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.

- 2) Ask the student to give you 5 counters. Take 4 of the counters and hide them under a plate or piece of paper. Show them the remaining counters and ask, “How many are hiding?”
 - a) If student answers incorrectly for (2a) or uses fingers to determine answer, end the Quick Check here.
 - b) If the student answers correctly (without using their fingers or counting up), show the student the 5 counters again, now 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?”
 - c) If the student answers correctly (without using their fingers or counting up), show the student the 5 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?”
 - d) If the student answers correctly (without using their fingers or counting up), show the student the 5 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?”
End the Quick Check here.

Some students are not yet able to identify missing parts to 5 without counting. Understanding that one number is contained within another, seeing and being able to describe the parts of numbers, is foundational to developing fluency. These students will need additional experiences in recognizing and describing small groups up to five. In addition to the activities provide in the Mathematics Instructional Plans listed on page 1, and those listed in number 1 above, consider providing opportunities for students to build five frames with two different color counters (e.g. 1 red counter and 2 yellow counters equal 3 counters).

- 3) Ask the student to give you 3 counters. Take 2 of the counters and hide them under a plate or piece of paper. Show them the remaining counter and ask, “How many are hiding?”
 - a) If the student answers correctly (without using their fingers or counting up), show the student the 3 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?”
 - b) End the Quick Check here.

Students who are unable to name the parts of 3 need lots of experiences building concrete models using 3 items. These opportunities to build, see, and describe will help them to build an understanding that 3 is made up of zero and 3, 1 and 2, 2 and 1, 3 and zero. Students at this level need to have opportunities to create these models (i.e., use pattern block cut outs or tooth picks of two different colors to build something).

All students, regardless of the number they are working on, will need opportunities to work with numbers flexibly, taking numbers apart and putting them back together in various ways, becoming aware that quantities do not change when broken apart and recombined in other ways (i.e., 6 counters can be broken apart into 4 counters and 2 counters, just as it can be broken into 5 counters and 1 counter).

Refer to the links to resources on page 1 which include numerous instructional activities that will support students in building the above skills (i.e., Mathematics Instructional Plans and Videos). Additional dot cards can be found in the Kindergarten MIP: [Subitizing with Dot Cards](#).