Just In Time Quick Check

Standard of Learning (SOL) 1.5b

Strand: Number and Number Sense

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The student, given a familiar problem situation involving magnitude, will explain the reasonableness of the choice.

Grade Level Skills:

- Explain why a particular estimate was chosen as the most reasonable from three given quantities (i.e., a one-digit numeral, a two-digit numeral, and a three-digit numeral), given a familiar problem situation.

Just in Time Quick Check

Just in Time Quick Check Teacher Notes

Supporting Resources:

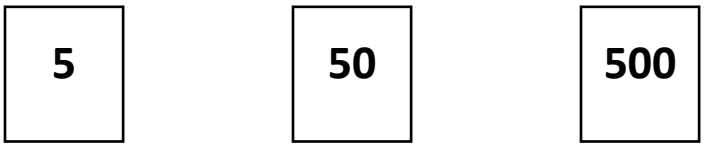
- VDOE Mathematics Instructional Plans (MIPS)
  - 1.5ab - Pumpkin Puzzlers (Word) / (PDF)
- VDOE Word Wall Cards: Grade 1 (Word) | (PDF)
  - Greater Than
  - Less Than

Supporting and Prerequisite SOL: 1.5a, K.1a, K.2a, K.2b, K.3a, K.3b

SOL 1.5b - Just in Time Quick Check: Student Interview

1) Place a pile of 20-30 counters on the table.
   Ask: “About how many counters do you think there are?”
   Once the student responds, ask, “Why do you think that?”

2) Prepare three containers, each with a different magnitude of small objects, such as small counters, base-ten unit blocks, beans, seeds, beads, or small candies. Show 3 cards:



   Ask: “Can you match place each card to show about how many objects are in the container?
   Once the student places the cards, ask, “Why do you think that?”

SOL 1.5b - Just in Time Quick Check Teacher Notes

Common Errors/Misconceptions and their Possible Indications

1) Place a pile of 20-30 counters on the table.
   Ask: "About how many counters do you think there are?"
   Once the student responds, ask, "Why do you think that?"
   A student who lacks a sense of magnitude may guess at the total or try to count the counters. When asked "Why do you think that?" the response may be "I just guessed" or "I just knew" or "I counted them" (perhaps with their eyes!). After the child tells you about how many they think there are, you may want to ask the student to count them while you watch and tell you how many counters. If the student can tell how many after counting, you will have a window into the student's number sense with regard to cardinality. Spread the counters out and ask the student "How many are there now?" If the student has to recount to tell how many, this may indicate a lack of conservation of number. This student will benefit from practice with counting and working with different-size sets, comparing quantities that are obvious and those that are not obvious. These experiences should involve ample practice with concrete objects of different sizes and shapes.

2) Prepare three containers, each with a different magnitude of small objects, such as small counters, base-ten unit blocks, beans, seeds, beads, or small candies. (Note: use the same type of object in all three containers.) Show 3 cards with the following numerals:

5	50	500

   Ask: "Can you place each card by the container that has about that many objects in it?
   Once the student places the cards, ask, "Why do you think that?"
   Students who struggle to place the cards by the appropriate contains are still working on developing a sense of magnitude. The student's response should provide evidence of their ability to discern the differences in magnitude with symbolic (number) and non-symbolic (counters) representations.
   Students who struggle matching the numerals with the appropriate contain or who struggle with explaining their answer need additional opportunities to practice counting and comparing different-size sets. In addition, weekly estimation jar routines can be beneficial for all students. It can also provide helpful to have a 'benchmark' jar with the number of items identified. This provides students with a frame of reference (i.e., if this jar has ten objects, then this other container has more, or less, than the benchmark container).