Just In Time Quick Check

Standard of Learning (SOL) K.6

Strand: Computation and Estimation

Standard of Learning (SOL) K.6

The student will model and solve single-step story and picture problems with sums to 10 and differences within 10, using concrete objects.

Grade Level Skills:

• Model and solve various types of story and picture problems using 10 or fewer concrete objects. (Types of problems should include joining, separating, and part-part-whole scenarios.)

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Just in Time Quick Check Teacher Notes

Supporting Resources:

- VDOE Mathematics Instructional Plans (MIP)
 - o K.6 Math Stories (Word) / PDF Version
- VDOE Word Wall Cards: Kindergarten (Word) | (PDF)
 - Addition
 - Subtraction
 - Estimate
 - o Join
 - Separate
 - o Part-Whole

Supporting and Prerequisite SOL: <u>K.4a</u>, <u>K.4b</u>, <u>Foundation Blocks for Early Learning: Standards for Four-Year Olds – 2ab*</u>

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

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Provide students some manipulatives (i.e., linking cubes, counters, buttons, etc.) and the attached candy jar story mat to utilize when solving the following problems.	
1.	Casey has 3 pieces of pink candy and 4 pieces of blue candy. How many pieces of candy does Casey have altogether?
2.	Bella has 8 pieces of candy. She ate 3 pieces. How many pieces of candy does Bella have now?
3.	Alex has 4 pieces of candy. Some are yellow and some are purple. How many pieces of candy could be yellow? How many pieces of candy could be purple?



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Common Errors/Misconceptions and their Possible Indications

Provide students some type of manipulatives (i.e., linking cubes, counters, buttons, etc.) and the attached math story mat (with candy jar) to utilize when solving the following problems.

1. Casey has 3 pieces of pink candy and 4 pieces of blue candy. How many pieces of candy does Casey have altogether?

Some students may not understand that joining two sets creates the need to count or to find the total. These students might count out the 3 pieces of pink candy and then the other 4 pieces of blue candy, but fail to realize that the groups need to be put together and recounted to find the total or sum. Students need a lot of opportunities to work with joining problems (i.e., modeling two sets, pushing them, together, and determining the total). Providing opportunities for students to act out story problems will help them to visualize the action of joining. Verbalizing what is happening in the story and the result will also help to develop their understanding of early operations.

Some students may find a part-part-whole mat to be helpful in developing the concept of joining.



2. Bella has 8 pieces of candy. She ate 3 pieces. How many pieces of candy does Bella have now?

Some students may struggle with modeling the story as their count may be off due to a lack of one-to-one correspondence (pointing to each object and putting the correct number word with it). Some students will miss count the quantity by skipping a cube, counting one short, or double counting a cube, etc. Providing a five frame or ten frame may help students to organize the chips/counters so they can more accurately count them.

Other students may misunderstand the problem and add 8 and 3, instead of subtracting 3 from 8. For these students, more opportunities to act out story problems would be beneficial.

3. Alex has 4 pieces of candy. Some are yellow and some are purple. How many pieces of candy could be yellow and how many pieces of candy could be purple?

Students may struggle to understand that the total number of candies is four. They may represent the problem as 4 yellow candies and 4 purple candies, thus creating a total of 8. In this case, students should be encouraged to walk thru the problem and act it out with materials. They may need help breaking the problem apart ~ ask questions such as: What do you know? What are we trying to find out? How could we draw that or act it out? Providing students with lots of experiences to act out story problems, and describe the action and the result, will help to develop a deeper understanding of joining, separating, and part-part-whole scenarios.