Just In Time Quick Check

Standard of Learning 2.6c

Strand: Patterns, Functions, and Algebra

Standard of Learning (SOL) 2.6c

The student will create and solve single-step and two-step practical problems involving addition and subtraction.

Grade Level Skills:

- Create and solve single-step practical problems involving addition or subtraction.
- Create and solve two-step practical problems involving addition, subtraction, or both addition and subtraction.

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Just in Time Quick Check Teacher Notes

Supporting Resources:

- VDOE Mathematics Instructional Plans (MIPS)
 - o <u>The FUNction Machine</u> (Word) / <u>PDF Version</u>
 - o I Am a Problem Solver! (Word) / PDF Version
- VDOE Word Wall Cards: Grade 2 (Word) | (PDF)
 - Addition
 - Subtraction
 - Equation: Number Sentence
 - o Regroup/Rename
 - Estimate
 - Related Facts

Supporting and Prerequisite SOL: 2.5a, 2.6a, 2.6b, 2.17, 1.6, K.6

SOL 2.6c - Just in Time Quick Check

1.	Maria has 17 more games than Chris. Maria has 43 games. How many games does Chris have?
2.	Bruce had some toy cars. He gave 19 toy cars to Nick. Now Bruce has 56 toy cars left. Bruce started with toy cars.
3.	Morgan has 32 rocks. Lora has 19 more rocks than Morgan. What is the total number of rocks Morgan and Lora have?
4.	Sharon had 35 pictures. Then she made 45 more pictures. She sold 53 of these pictures at an art show. How many pictures did Sharon have left over?

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Common Errors/Misconceptions and their Possible Indications

1. Maria has 17 more games than Chris. Maria has 43 games. How many games does Chris have?

Some students make the common error of adding because Maria has more cards than Chris, finding that 17 + 43 = 60. Students who use only one part of the context to determine an operation need to develop an understanding of the complete context to solve the problem. These students would benefit from more experiences making sense of contexts during peer discussions and working with a variety of associated problem types. Refer to the Grade 2 Curriculum Framework for descriptions of problem types.

Students who add may also not regroup correctly and may make some of the following errors: 43 + 17 = 510 or 43 + 17 = 50, etc.

Students who subtract may also not regroup correctly and may make some of the following errors: 43 - 17 = 34 or 43 - 17 = 36, etc.

Students who make computation errors such as these may benefit from experiences that allow them to consider and develop flexible strategies for addition and subtraction, as well as more experiences with concrete objects that represent the ten-to-one relationship that exists within the base-ten system (i.e., trains of ten made from linking cubes, base-ten blocks), hundred charts, and number lines.

2.	Bruce had some toy cars.	He gave 19 toy cars to Nick.	Now Bruce has 56 toy cars left.
	Bruce started with	toy cars.	

Students who use "key words" rather than developing an understanding of complete context to solve the problem may see the word "left" in the problem and think it means to subtract. This might result in students subtracting 19 from 56, resulting with Bruce starting with 37 toy cars. Students may benefit from more experiences with the associated problem types and representing those problems by acting them out or representing them with drawings and words. Refer to the Grade 2 Curriculum Framework for descriptions of problem types.

Students who subtract also may not regroup correctly and may make some of the following errors: 56 - 19 = 43 or 56 - 19 = 47, etc.

Students who add may also not regroup correctly and may make some of the following errors: 56 + 19 = 615 or 56 + 19 = 65, etc.

Students making computation errors such as these may benefit from more experiences with concrete objects that are proportional and can be regrouped, hundred charts, and number lines. They would also benefit from exposure to other students' strategies for addition and subtraction and opportunities to practice those strategies with a variety of problems.

3. Morgan has 32 rocks. Lora has 19 more rocks than Morgan. What is the total number of rocks Morgan and Lora have?

Students may add to find that 32 + 19 = 51 and present this as the total number of rocks. This error suggests that students are not be using the full context of the problem. Encourage students to reread the question to determine if the answer addresses the question being asked. Drawing pictures to represent each part of the question is a strategy that may increase understanding when solving practical problems. Exposure to a variety of Virginia Department of Education

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problem types is essential as students develop strategies for solving practical problems. Refer to the Grade 2 Curriculum Framework for descriptions of problem types.

Students who make computational errors may benefit from more experiences with concrete objects that are proportional and can be regrouped, hundred charts, and number lines. These students would also benefit from opportunities to try out strategies used by other students, which may further the development of flexible strategies for addition and subtraction.

4. Sharon had 35 pictures. Then she made 45 more pictures. She sold 53 of these pictures at an art show. How many pictures did Sharon have left over?

Students may add all three numbers, which may indicate that they are not using the full context of the problem. Representing all of the information from the practical problem with a picture and words may help students understand the problem presented and the importance of attending to the full context in order to solve the problem completely. Students may also benefit from more experiences with the variety of associated problem types described in the Grade 2 Curriculum Framework.

Encourage students who make computational errors to use concrete objects such as base-ten blocks or trains of ten, hundred charts, and number lines as they solve and record their problem-solving steps. Experiences that allow students to develop flexible strategies for addition and subtraction are also beneficial.