Domain: Operations and Algebraic Thinking
1.OA.A: Represent and solve problems involving addition and subtraction.

Calculator Availability: No

There are 8 more birds than squirrels in a tree. There are 6 squirrels.
How many birds are in the tree? Move a number to the line to show the answer.

| birds |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | ---: | :--- | :--- |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |  |

Alignment: 1.OA.A.1: Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Solving addition and subtraction word problems is a key area of focus for grade 1. This item has students solve a compare situation. In order to solve the problem, students must understand that the larger quantity is unknown and so they must add 8 and 6 to find there are 14 birds in the tree. A full list of the addition and subtraction problem situations that students need to learn in grades K-2 can be found in Table 1 of the CCSS Mathematics Glossary. This item falls within the Compare category and is a biggerunknown problem.

Coherence: In grades K-2, students build their problem-solving skills with addition and subtraction by learning about different problem-solving situations and how to represent them. In kindergarten, students solved add-to and take-from addition and subtraction problems where the result was unknown. ${ }^{\text {K.OA.A. } 2}$ In grade 1, students add and subtract to solve problems with numbers within 20, and they expand the problem-solving situations that they work with to include start- and change-unknown situations. ${ }^{1 . O A . A .1}$ In grade 2, students will expand their problem-solving skills to solve both one- and twostep addition and subtraction word problems within 100. ${ }^{2.0 \text { A.A. } 1}$ These various problem-solving situations may be used when they will solve multiplication, division ${ }^{3 . O A . A .3, ~ 4 . O A . A . ~} 2$ and fraction ${ }^{4 . N F . B, ~ 5 . N F . A, ~ 5 . N F . B ~ w o r d ~}$ problems. Understanding comparison situations for addition and subtraction will be particularly important in grade 4, when students will learn about multiplicative comparison. ${ }^{4 . O A . A .2}$

Rigor: This item attends to conceptual understanding, procedural skill, and application. The item attends to conceptual understanding because students need make sense of the relationship between the quantities given in the problem. The item requires students to apply grade-level knowledge of solving addition word problems to interpret the problem. They perform a grade-level procedure when they add two numbers within 20.

Answer Key:

| There are 8 more birds than squirrels in a tree. There are 6 squirrels. |
| :--- | :--- | :--- |
| How many birds are in the tree? Move a number to the line to show the answer. |
| 14 birds          <br> 0 1 2 3 4 5 6 7 8 9 10 <br> 11 12 13 15 16 17 18 19 20   |

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