2nd Grade Math

ELG 2.OA.A Represent and solve problems involving addition and subtraction

Vertical Progression:

Kindergarten	**K.OA.A Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.** ○ **K.OA.A.1** Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g. claps), and acting out situations, verbal explanations, expressions, or equations. ○ **K.OA.A.2** Solve addition and subtraction word problems, and add or subtract within 10, e.g., by using objects or drawing to represent the problem.
1st Grade	**1.OA.A Represent and solve problems involving addition and subtraction.** ○ **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. ○ **1.OA.A.2** Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
2nd Grade	**2.OA.A Represent and solve problems involving addition and subtraction.** ○ **2.OA.A.1** Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
3rd Grade	**3.OA.D Solve problems involving the four operations, and identify and explain patterns in arithmetic.** ○ **3.OA.D.8** Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. ○ **3.OA.D.9** Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain then using properties of operations. *For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.*

Students will demonstrate command of the ELG by:

- Determining when to use addition and/or subtraction in a word problem
- Determining relevant information in a word problem.
- Using a variety of strategies to solve one- and two-step addition and subtraction word problems.
- Explaining verbally and in writing the strategy used to solve word problems.
- Representing solutions with objects, drawings, equations, and words.
- Solving word problems with unknown numbers in different positions.

2nd Grade Math

ELG 2.OA.A: Represent and solve problems involving addition and subtraction

Vocabulary:

- add
- adding to
- addition
- equal
- equation
- one-step word problem
- putting together
- strategy
- subtraction
- symbols
- taking apart
- taking from
- two-step word problem
- unknown

Sample Instructional/Assessment Tasks:

1) **Standard(s): 2.OA.A.1**

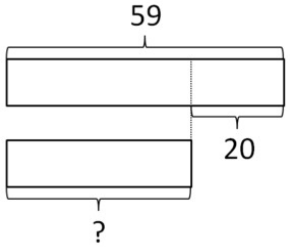
Source: Illustrative Mathematics
https://www.illustrativemathematics.org/content-standards/2/OA/A/1/tasks/1

Item Prompt: Pencil and a Sticker

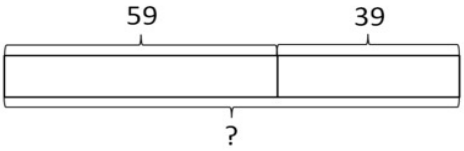
A pencil costs 59 cents, and a sticker costs 20 cents less. How much do a pencil and a sticker cost together?

Correct Answer and Solution:

The pencil costs 59 cents, and the sticker costs 20 cents less than that:



So the sticker costs 59-20 = 39 cents.
The cost of the two together is 59 + 39 = 98 cents.



2) **Standard(s):** 2.OA.1

Source: https://grade2commoncoremath.wikispaces.hcpss.org/Assessing+2.OA.1

Item Prompt: Game Tokens

Josh won 14 tokens from a game. He won 29 tokens from a second game. After the second game, he used 21 tokens for a prize. How many tokens did he have left?

Correct Answer and Solution:

Josh won 14 tokens in the first game and 29 tokens from the second game. So he won 43 total tokens. 14 + 29 = 43. Then Josh used 21 tokens. So he had 22 tokens left after using tokens for a prize. 43 - 21 = 22.