Topic A

Solving Word Problems

**3.OA.8**

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| Focus Standard: | 3.OA.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. (This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order [Order of Operations].) |
| Instructional Days: | 3 |   |
| Coherence -Links from: | G3–M1 | Properties of Multiplication and Division and Solving Problems with Units of 2–5 and 10  |
| G3–M3 | Multiplication and Division with Units of 0, 1, 6–9, and Multiples of 10 |
|  -Links to: | G4–M1 | Place Value, Rounding, and Algorithms for Addition and Subtraction |
| G4–M3 | Multi-Digit Multiplication and Division |

In Topic A, students use all four operations to solve one- and two-step word problems within various contexts that were studied throughout the year. The problems are challenging and require students to carefully consider solution paths as they “make sense of problems and persevere in solving them” (MP.1).

Guided practice with strategies for problem solving is built into Lessons 1 and 2. These lessons emphasize the use of modeling through the Read-Draw-Write (RDW) process and revisit models such as tape diagrams and number bonds. Students flexibly use a letter to represent the unknown as they solve. This readies them for problem solving with perimeter and area in Topics C and E.

In Lesson 3, students’ level of independence within the lesson increases. They work together or on their own to develop solution paths, and then share strategies and solutions. Students think critically about their own solutions and the work of others as they review and critique one another’s work. They discuss the clarity, practicality, and efficiency of different models and strategies, refining their own understandings and approaches. Student presentations of work, protocols for critiquing, and gallery walks are structures that provide a platform for this dialogue.

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| A Teaching Sequence Towards Mastery of Solving Word Problems |
| Objective 1: Solve word problems in varied contexts using a letter to represent the unknown.(Lessons 1–2) |
| Objective 2: Share and critique peer solution strategies to varied word problems.(Lesson 3) |