



Topic H

Subtraction Word Problems

1.OA.1, 1.OA.4, 1.OA.5, 1.OA.8

Focus Standard:	1.OA.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.4	Understand subtraction as an unknown-addend problem. <i>For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8.</i>
Instructional Days:	5	
Coherence	-Links from: GK–M4	Number Pairs, Addition and Subtraction to 10
	-Links to: G2–M4	Addition and Subtraction Within 200 with Word Problems to 100

With a smooth transition from Topic G, Topic H provides students with rich experiences connecting subtraction to their solid foundation of addition (**1.OA.4**), using various word problem types (**1.OA.1**). Lesson 28 begins with students solving action-based *take from with result unknown* problems, as they start with a set of objects, then take some away, and finally end with a smaller set of objects. Students then work with simple math drawings and equations to represent these *take from with result unknown* stories and connect the act of crossing off to the symbol for subtraction.

Then, Lesson 29 allows students to solve the relationship-based *take apart with result unknown* problems, which are both connected to *take from with result unknown* problems and are the counterpart to the familiar *put together with addend unknown* problems from earlier topics. In both Lessons 28 and 29, students make varied statements to explain the remaining amount, e.g., “There were 4 bears left,” “Four bears stayed in the forest,” “Then, there were 4 bears altogether.” This permits students to think and speak flexibly about the unknown, rather than associate specific key words with a particular operation. For example, *altogether* does not always indicate addition.

Lesson 30 furthers the connection between addition and subtraction as teachers have students discuss ways to solve *add to with change unknown* word problems, as they use simple math drawings and equations to represent the problem and solution. With the introduction of a whole new problem type in Lesson 31, students use drawings to solve *take from with change unknown* problems such as, “Ben had 7 pencils. He gave away some. Now, he has 5. How many pencils did he give away?” The topic ends with another new relationship problem—*put together/take apart with addend unknown*. Throughout Topic G, students discuss and apply their understanding of addition as it relates to subtraction and vice versa.

A Teaching Sequence Towards Mastery of Subtraction Word Problems

- Objective 1:** Solve *take from with result unknown* math stories with math drawings, true number sentences, and statements, using horizontal marks to cross off what is taken away.
(Lesson 28)
- Objective 2:** Solve *take apart with addend unknown* math stories with math drawings, equations, and statements, circling the known part to find the unknown.
(Lesson 29)
- Objective 3:** Solve *add to with change unknown* math stories with drawings, relating addition and subtraction.
(Lesson 30)
- Objective 4:** Solve *take from with change unknown* math stories with drawings.
(Lesson 31)
- Objective 5:** Solve *put together/take apart with addend unknown* math stories.
(Lesson 32)