



Topic E

Decompositions of 9 and 10 into Number Pairs

K.OA.3

Focus Standard:	K.OA.3	Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$).
Instructional Days:	4	
Coherence	-Links from: GPK–M5	Addition and Subtraction Stories and Counting to 20
	-Links to: G1–M1	Sums and Differences to 10

Topic E expands student exploration of numerical relationships to include 9 and 10. Returning to work with number bonds after introducing addition and subtraction reminds students about the **part–part–whole** relationships that underlie these operations. Students explicitly discuss the relationship between addition and subtraction in Topic H.

In Lesson 25, students work intensively with the number pairs of 9 as they demonstrate different combinations of sleeping bears and honey tree–hunting bears using counters and record with number bonds.

Lesson 26 gives students the opportunity to decompose 9 into number pairs using representations of fingers, linking cubes, and number bonds. In the Student Debrief, they explore patterns in the number pairs.

Lessons 27 and 28 follow this same lesson structure for the number 10. In all four lessons, the decompositions are discussed or recorded using number bonds, drawings, and number sentences.

This topic's decomposition situations, like those in Topic B, are *put together with both addends unknown* addition equations modeled by the equation $C = \underline{\quad} + \underline{\quad}$ (K.OA.3).

A Teaching Sequence Toward Mastery of Decompositions of 9 and 10 into Number Pairs

Objective 1: Model decompositions of 9 using a story situation, objects, and number bonds.
(Lesson 25)

Objective 2: Model decompositions of 9 using fingers, linking cubes, and number bonds.
(Lesson 26)

Objective 3: Model decompositions of 10 using a story situation, objects, and number bonds.
(Lesson 27)

Objective 4: Model decompositions of 10 using fingers, sets, linking cubes, and number bonds.
(Lesson 28)