Number Pairs, Addition and Subtraction to 10

Module 4 marks the next exciting step in math for kindergarten students: addition and subtraction! We will start with composing and decomposing numbers using number bonds (see reverse), and move toward work with addition and subtraction equations.

Grade Level Standards

K.OA.1, K.OA.2, K.OA.3, K.OA.4, K.OA.5

Student Report Card

- COG-3: Number Sense of MATH Operations

Key Vocabulary

- Addition
- Addition and Subtraction sentences (equations)
- Make 10 (combine two numbers from 1–9 that add up to 10)
- Minus (–)
- Number bond (mathematical model)
- Number pairs or partners (embedded numbers)
- Number sentence (3 = 2 + 1)
- Part (addend or embedded number)
- Plus (+)
- Put together (add)
- Subtraction
- Take apart (decompose)
- Take away (subtract)
- Whole (total)

How you can help at home:

- Continue to compare groups of objects up to 10, asking more nd less-than questions
- Review and practice counting numbers up to 30, or as high as possible
- Use cereal pieces to solve the following problem: Mason has 10 pieces of cereal. He eats 4 pieces. How many pieces are left?
- How old are you now? Subtract one from that number and record it. Add 3 to that number and record it.
- Go outside and find two clovers. Write an equation to show how many leaves are on both clovers.
- Use some fruit to solve the following problem: Ken has 5 bananas in a bunch. He eats some. There are 3 left. How many bananas did he eat?
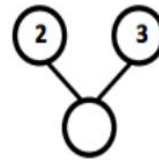
Models and Representations

Ways to show understanding of addition and subtraction to 10
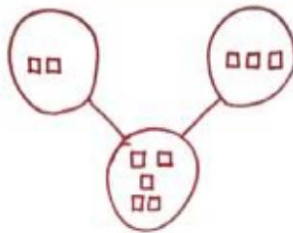
$2 + 3 =$ ____
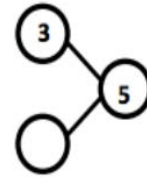
$5 - 3 =$ ____

Number bonds, seen above, are models that help students see the part/part/whole relationships within a given number. Number bonds can use either drawings or numerals to show the number relationships and is a key model for showing students how to both take apart (decompose) and put together (compose) numbers with ease. This in turn leads directly to their emerging addition and subtraction skills.
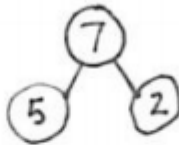
$5 + 2 = 7$ $7 - 5 = 2$

The number 5 matches the daisies. 2 matches the tulips. 7 tells the total. 5 and 2 are the parts.

After understanding number bonds, students transition to writing addition and subtraction number sentences. They use drawings and objects to represent the problem, and connect their understanding to written equations. It is important that students understand what each part of the number sentence represents. In this example, students know that 5 represents the daisies, 2 is for the tulips, and 7 is for the total number of flowers.