

# Bears in Balance

Planning Your Time		
<b>Intro &amp; Demo</b>	<b>Activity</b>	<b>Sum It Up</b>
15 min	15 min	10 min
		

## Objective

Explore equality on a balance scale.

## Materials

- Three Bear Family Counters
- Balance Scale

## Grouping

Whole class, then small groups

## Open It Up

**Ask:** How could you make change for a dime? [Two nickels, one nickel and five pennies, ten pennies]

**Say:** Each group of coins is worth 10¢. Even though the groups have different coins, the value is the same.

## Demonstrate & Discuss

Have a volunteer explain how a Balance Scale works. Point out that the scale is in balance when the corners of the two triangles on the front of the base of the scale line up.

Identify the Papa bear, Mama bear, and Baby bear counters for students. Place a Papa bear counter and a Baby bear counter in one pan of the balance scale. Write  $1 P + 1 B$  on the chalkboard. Complete the equation as students provide more information.

**Ask:** I used a letter to stand for each size of counter. What does each letter stand for? [P is for Papa bear and B is for Baby bear] What does this statement tell us? [There is one Papa bear counter and one Baby bear counter in the pan.]

Have a volunteer use Mama bear counters to balance the scale. When they are finished write  $2 M$  to the right of  $1 P + 1 B$ .

**Ask:** What does  $2 M$  tell us? [There are 2 Mama bear counters on the scale.] How can we show that the two groups of counters weigh the same? [Place an equal sign between  $1 B$  and  $1 M$ :  $1 P + 1 B = 2 M$ ]

**Say:** This statement is an **equation**. An equation shows that the two sides are equal.

## Student Activity

**Prepare ahead:** Provide each small group with some Three Bear Family Counters and a Balance Scale. Check that each Balance Scale is set up properly before students begin working.

Some students may need to write out the full bear name below each equation to remind them which counters to place in the pans.

## Informal Assessment

Have students explain how they found each equality.

**Ask:** How did you know when the scale was balanced? [Sample: The pans were the same height.] /OBSERVE/

**Ask:** What does the equation tell you? [Sample: That 1 Mama bear and 2 Baby bears weigh the same] /COMPREHENSION/

## Sum It Up

**Say:** In this lesson, you used counters to balance a scale and write an equation to show the two equal sides.

**Ask:** How does the equation show the problem? [Sample: It shows the bears in each pan, and the equal sign between the two “pans” shows that the pans are balanced, or equal.] /DESCRIBE/

## Extension

**Materials:** Three Bear Family Counters and a balance scale

Have students place 1 Mama bear counter in one pan and 2 Baby bear counters in the other pan. Then have them add 1 Papa bear counter to one pan. **Ask:** How many Papa bear counters do I need to place in the other pan to balance the scale? [One]

Have students remove the Papa bear counters. Repeat, adding two, three, four, and five Papa bear counters.

**Ask:** If I add some counters to one pan, what do I need to do to keep the scale in balance? [Add the same number and type of counter to the other pan]