Addition Strategies: "Make 10"

Ist-2nd Grade

Objective

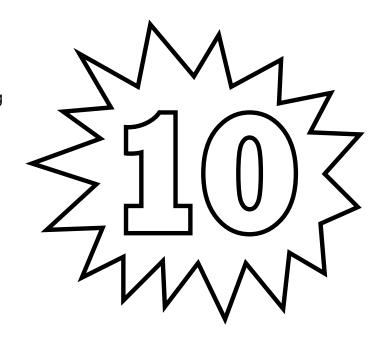
Operations & Algebraic Thinking

 Using strategies to add and subtract fluently within 20 (e.g., counting on, making ten, decomposing or creating equivalent sums)

Materials Needed

- "Make 10" frame
- Place Value Blocks [RA991]
- Number line
- "Spin-To-Build" spinner
- "Build a Sum" record sheet
- Paper clips
- Pencils

Products with item numbers are available at LakeshoreLearning.com.



Introduction

- 1. Pair students with partners, and give each pair 10 ones cubes and I tens rod from the Place Value Blocks set.
- 2. Challenge students to see how many ways they can "make 10" in two minutes (e.g., 2 cubes + 8 cubes, 3 cubes + 7 cubes, etc.). Invite students to share their answers and compare.
- 3. Provide the "Make 10" frame and have students complete it. Model the problem created in the frame.
- 4. Ask, "How can I find out how to make 12? 14? 18? Can I start from 10? Is it faster?" Note: Use Place Value Blocks to show visual representations of two-digit numbers. For example, 14 is 1 tens rod and 4 ones cubes.

Procedure

- 1. Give each student a number line, 19 ones cubes and 1 tens rod.
- 2. Ask, "What's a fast way to add 5 + 7?" Tell students you are going to teach them a strategy to quickly add two single-digit numbers by first making a 10, and then adding the remaining, or "leftover," ones to find the sum. Encourage them to use the number line to start on the first number and add up to 10. Then add the remaining ones to find the sum. For example, to add 5 + 7, show that it is the same as (5 + 5) + 2, which is equal to 10 + 2.
- 3. Have students add 10 + 2 by showing that I tens rod and 2 ones cubes add up to 12. Point out that they are taking the first number and making a 10 (5 + 5), and then adding the remaining ones (2) from the second number to get the sum.
- 4. Repeat with a few of the following examples, encouraging students to use Place Value Blocks to make 10 before adding the numbers together.

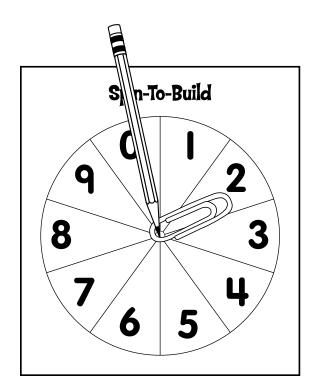
$$6 + 8 = 6 + 4 + 4 = 10 + 4 = 14$$

$$9 + 6 = 9 + 1 + 5 = 10 + 5 = 15$$

$$4 + 7 = 4 + 6 + 1 = 10 + 1 = 11$$

Independent Practice

- I. Give each student a "Spin-To-Build" spinner, a pencil and a paper clip. Have students insert the pencil through the paper clip and hold the pencil upright as an arrow for the spinner. Have them practice spinning two numbers and "building" the sum with their ones cubes.
- 2. Explain that when the two numbers add up to a sum greater than 10, they can find the sum by combining the cubes to make 10 and then adding the remaining cubes. Use the number line as support.
- 3. Have students record the numbers on their "Build a Sum" record sheet. Instruct them to show how they first combined the cubes to build 10, and then added the remaining cubes to find the sum.



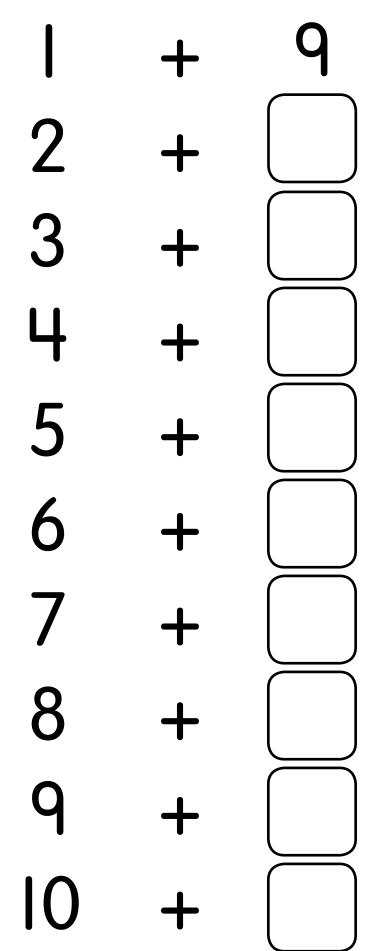
For example:

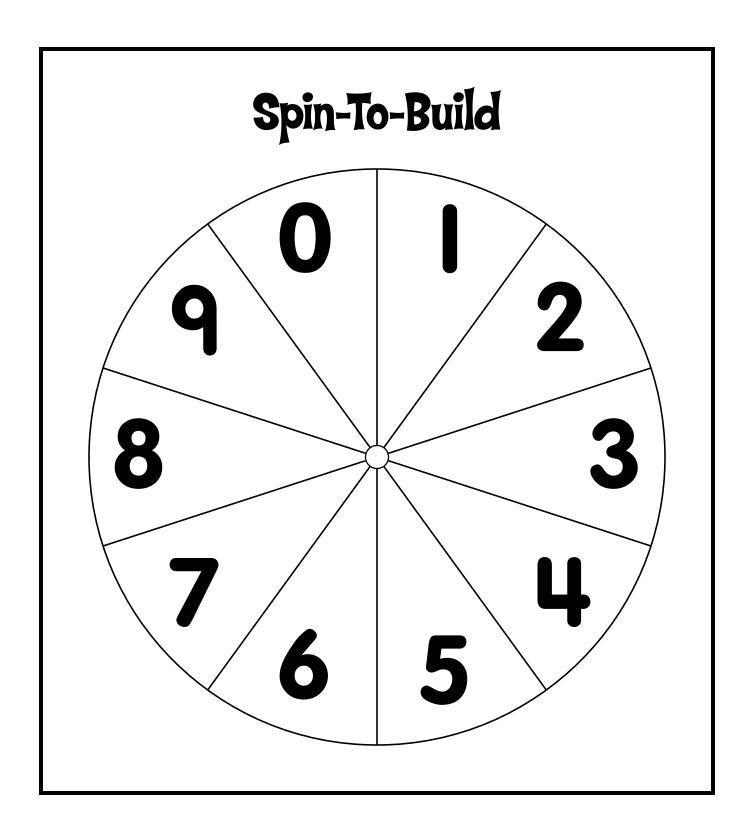
Spin #I	Spin #2	Build It	Sum
6	7	6 + 4 + 3 = 10 + 3 = 13	13

Challenge

Place the "Spin-To-Build" activity in a center for additional practice. As an added challenge, have students write addition and subtraction problems on index cards with sums and differences up to 20. Have them write the answers on the back of the cards. Place the index cards in a math center with some Place Value Blocks, and challenge students to solve each other's equations!

Make 10





Build a Sum

Name:

Directions: Spin two numbers. Count out the numbers with your cubes. Combine the cubes to make 10, then add the remaining cubes to find the sum.

5.	÷	2.	
			Spin #I
			Spin #2
			Build It
			Sum