



Build Expressions to Equal Twenty

The interactive white board tool for this lesson can be found on our website under Resources and Teacher Tools. (www.dreambox.com/teachertools)

The Snap Blocks[™] tool is an engaging way for students to explore the concept of equality and begin to make generalizations that will inform their algebraic thinking. Students will understand the meaning of the equal sign and the concept of equivalence, and will explore relational thinking by noting relationships between two sides of the equal sign.

Sample Lesson

Objective: Students are able to prove if two equations are equal by recognizing parts of the equations that

are equal.

Background: Students should have an understanding of basic addition number facts to 10 and 20.

Instruction:





- 1. Introduce the problem to students. "We have two equations posted on the board. Our task is to find out if they are equivalent."
- 2. Ask students, "If we don't know the answer off the top our head, does anyone have a strategy?"

Possible responses:

- "We can use the snap blocks on the bottom to test."
- "We can put the green blocks on the tray and then see if any of the combinations of the blue blocks line-up with the green blocks."
- "We can add up both sides to see if they have the same sum."
- "We can see if parts of the equations equal 10 and then add them together."
- 3. Ask another student to come to the board and prove if the equations are equal. Allow the student to experiment with the blocks and provide an answer. It's OK if students provide an incorrect response. This gives the class an opportunity to discuss whether the student's strategy and conclusions are valid in the next step.



- 4. Once the student has made his case, ask the class to vote on whether the statement is true or false.
- 5. Call on a student to come to the board and press the true or false button according to the class decision.
- 6. If the response is incorrect, ask another student to come up to the board and explain why the statement is true or false. Allow students to make mistakes and defend their decisions. The purpose is to not only be able to answer the prompt but to understand why the statement is true or false and be able to defend their responses.
- 7. If the response is correct, click the "Next" button and begin a new problem. Engage all students to solve the problem and ask them to explain their thinking and justify their answers. Use questions to scaffold as needed.