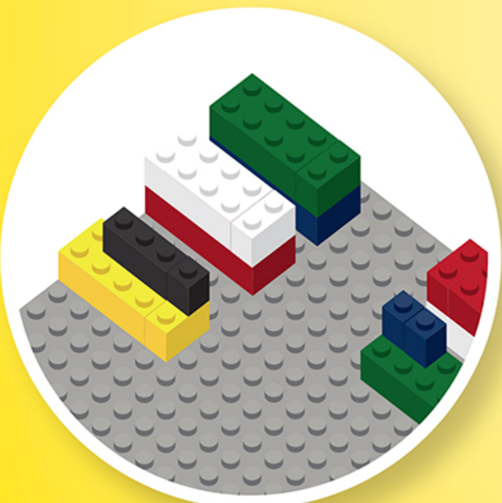
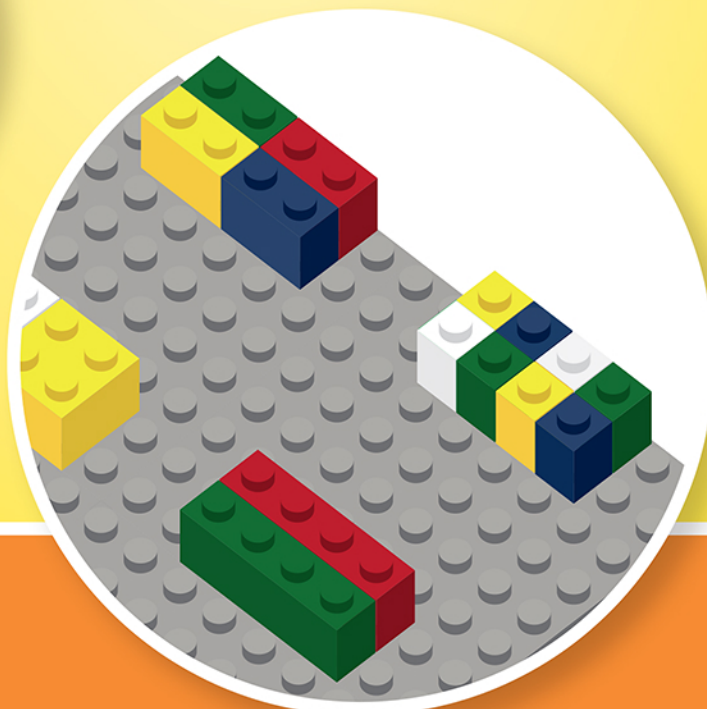
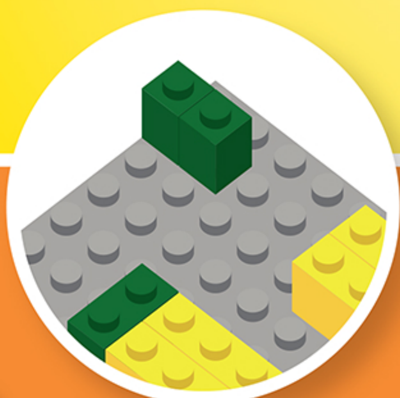
Brick Math Series

TEACHING ADDITION USING LEGO® BRICKS

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Math Curriculum Expert

Teaching Addition Using LEGO® Bricks

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ADDING LARGER NUMBERS

Students will learn/discover:
- How to add numbers to sums within 100 using a place value method

Why is this important?
Being able to add numbers that are sums within 100 begins the process of adding even larger numbers. Linking place value to addition and decomposing numbers is key to understanding the way addition is related to other operations.

Vocabulary:
- Add: To join together
- Sum: The solution to an addition problem
- Addend: Each of the numbers being added together in an addition problem
- Compose: To bring together parts of a number into a whole
- Decompose: To break a number into parts that make up a whole. This is usually referred to as *regrouping* when working with base ten.

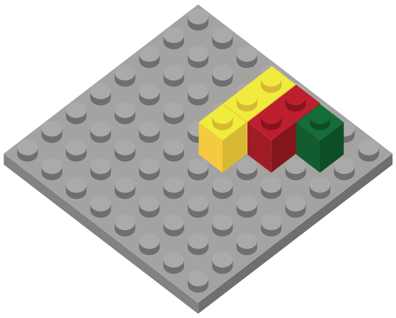
How to use the companion student book, *Learning Addition Using LEGO® Bricks*:
- After students build their models, have them draw the models and explain their thinking in the student book. Recording the models on paper after building them with bricks helps reinforce the concepts being taught.
- Discuss the vocabulary for each lesson with students as they work through the student book.
- Use the assessment in the student book to gauge student understanding of the content.

SUGGESTED BRICKS

Size	Number
1x1	10 each of 4 colors
1x2	16
1x3	4

Note: Using a baseplate will help keep the bricks in a uniform line. One large baseplate is suggested for these activities.

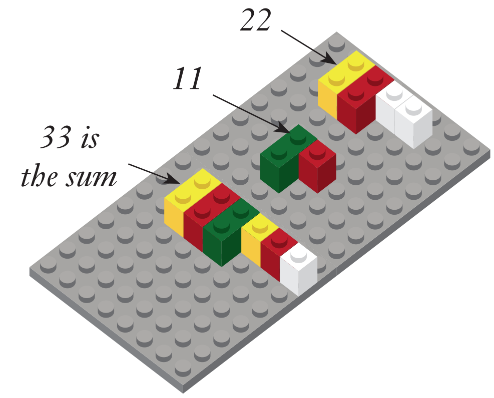
Part 1: Show Them How



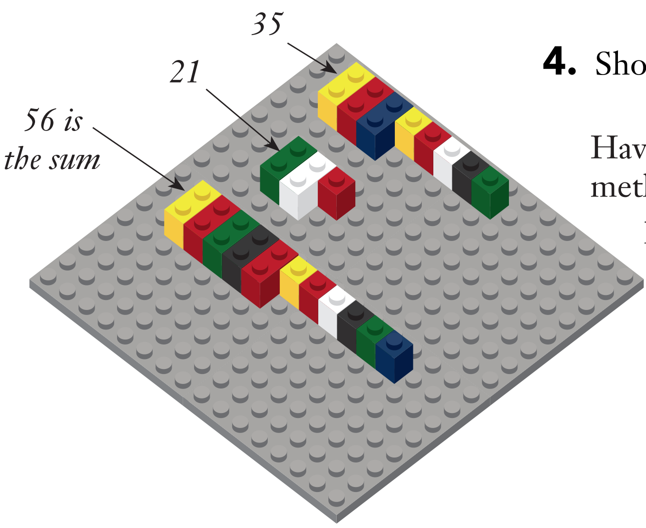
1. Show students how to build a place value model. Point out the representational value of each brick in the model. The 1x1 brick represents the ones; the 1x2 brick represents the tens; the 1x3 brick represents the hundreds.

2. Have students build the number 22 using two 1x2 bricks (representing 20) and two 1x1 bricks (representing 2).

   Have students build the number 11 using one 1x2 brick (representing 10) and one 1x1 brick (representing 1).



3. Show students how to compose (join) these two numbers and form a new model that represents the sum. Have students build a third model to show the composing action and then draw and label their solution.

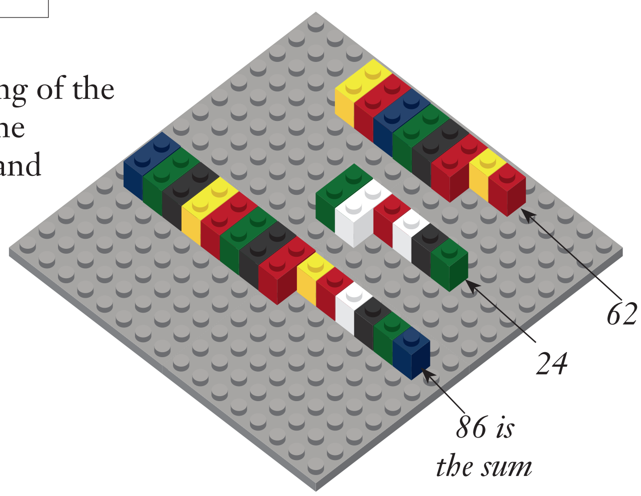


4. Show students this math sentence: $35 + 21 = \boxed{}$

   Have students build each number using the place value method. Show how to combine the two addends to compose the sum. Have students build the model that composes the sum and then draw and label their solutions.

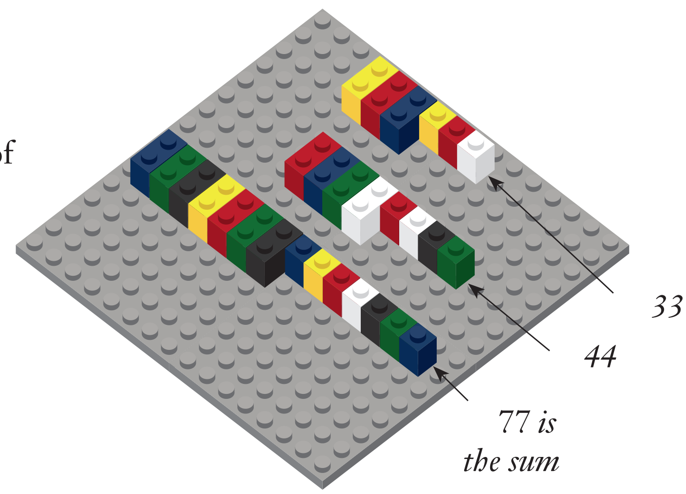
5. Show students this math sentence: 62 + 24 = $\boxed{}$

Build each of the addends. Show the composing of the bricks to form the sum. Have students build the model that composes the sum and then draw and label their solutions.



Part 2: Show What You Know

1. Can you build a model to show the addition of 33 + 44? Build a model of the sum. Draw and label the model.



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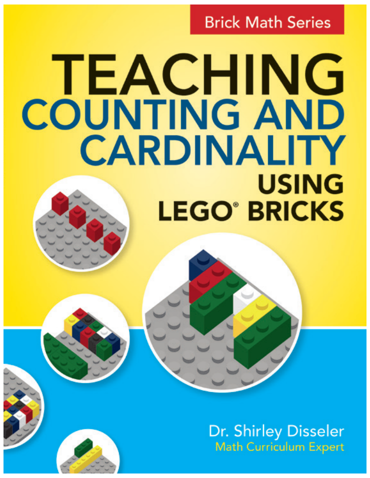

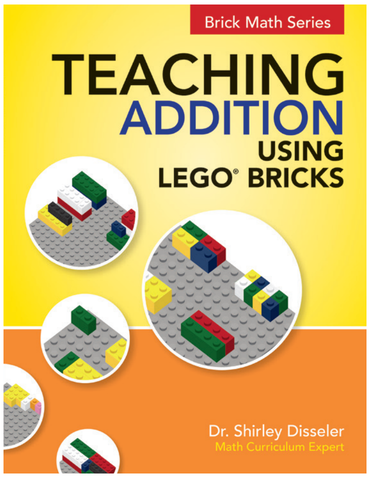

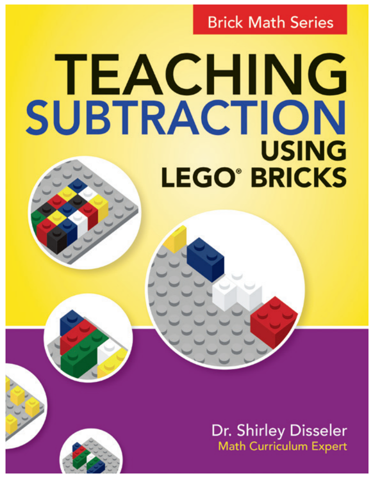

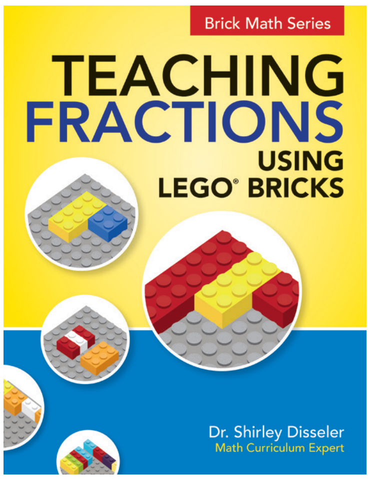

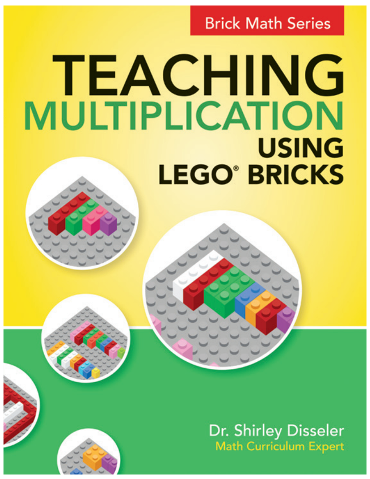

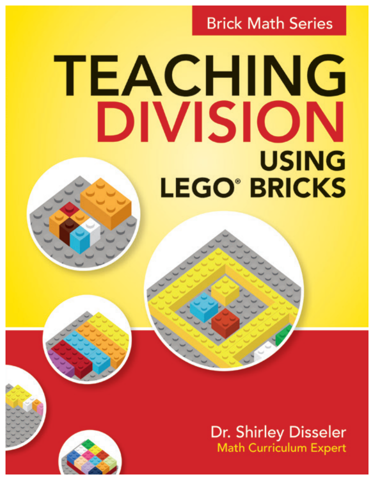

Companion Student Editions

Individual student books that follow the teaching curriculum, complete with additional activities for practice and assessments.