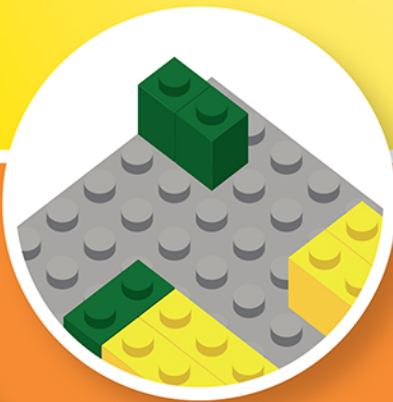
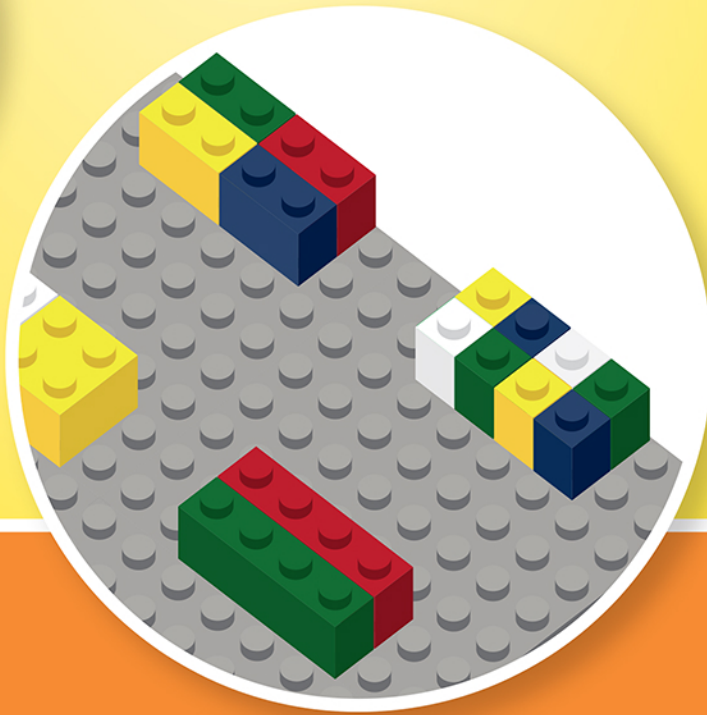
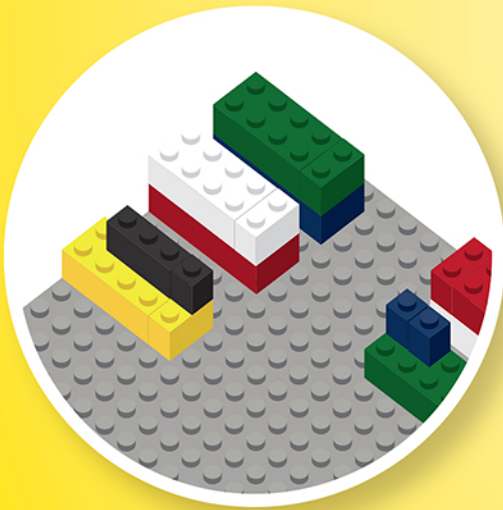


Brick Math Series

# TEACHING ADDITION USING LEGO® BRICKS



Dr. Shirley Disseler  
Math Curriculum Expert

## *Teaching Addition Using LEGO® Bricks*

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# HOW TO TEACH WITH THE BRICK MATH SERIES

## **Using the *Teaching* and *Learning* Books:**

Start by taking students through the **Part 1: Show Them How** section of each chapter. Build the models, show them to the students, and ask students questions. Where directed, have students build the same models themselves so they are manipulating the bricks as you are guiding them. A document camera is helpful to display your models to the whole class as you build them. The step-by-step directions in the *Teaching* books work through several problems in Part 1. If you are using the companion *Learning* books, which are the Student Editions, have students draw their models and answer the questions in those books as you teach using the *Teaching* book.

Once students have mastered the modeling processes from Part 1, move to the **Part 2: Show What You Know** section of the chapter. Ask students to complete each of the problems using bricks and drawing their models. The companion *Learning* books (Student Editions) have space for writing answers and baseplate paper for drawing models. Move through the room and check that students are building their models correctly, drawing them clearly, and understanding the concepts being taught.

The *Learning* books (Student Editions) include an assessment for each chapter, as well as additional problems for practice and challenge. The books also include an Assessment Chart



to track each student's performance on all the skills taught in the *Addition* book.

*Note:* Active learning breeds active learners! Students will be motivated and engaged in math when they are using bricks. It will not be silent in your classroom, but it will be full of chatter about the math!

### **Suggested Bricks:**

The Brick Math Series is designed to be used with basic LEGO® bricks. If you already have LEGO® bricks in your classroom, your students should be able to use them to make the models. They may have to combine smaller bricks together when the directions call for longer bricks such as 1x10s or 2x12s. Each student also needs a baseplate on which to build brick models.

Each chapter lists the bricks suggested for the lessons in that chapter for every two students, and the book includes a total brick inventory that lists all the bricks suggested for the program for every two students.

Brick Math Series brick sets are available through Brigantine Media if you would like to purchase complete sets designed for the program. The sets are packaged in divided boxes and are intended for use by two students. Two baseplates are included with each Brick Math Series brick set.

### **Classroom Management Ideas:**

- Before starting, have a conversation with the students about using bricks as a learning tool rather than a toy.
- Teach students the language of bricks (baseplate, stud, 1x1, 1x2, etc.).
- Assign brick sets to specific students and always give the same students the same sets. An easy way to do this is to number each brick set and assign the sets to pairs of students by number. When students know that they will always have to work with the same brick set, they are more likely to be careful that the bricks are returned to the set.
- Do not teach using bricks—or any manipulative—every day. Students also need to have opportunities to think through the math processes without having a physical object for modeling. Sometimes it helps to have students draw models without building them with bricks

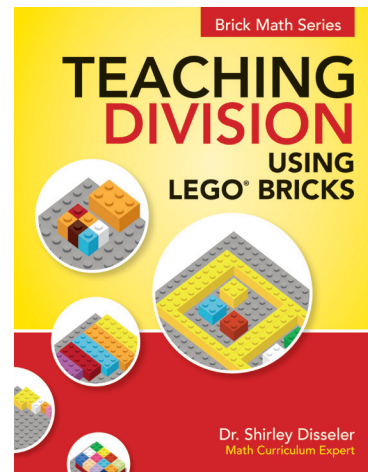
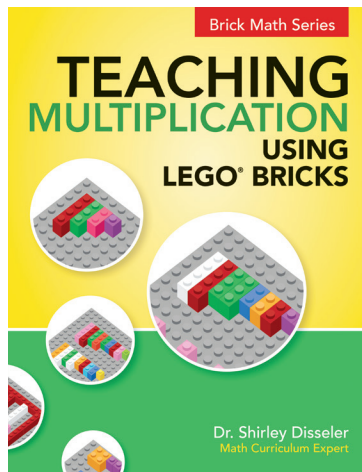
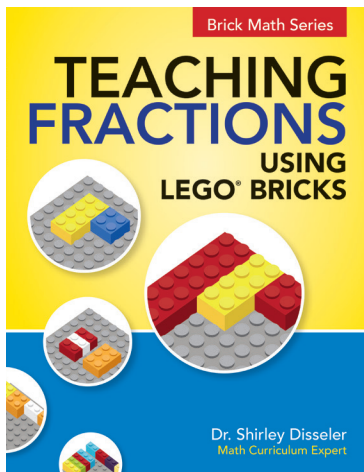
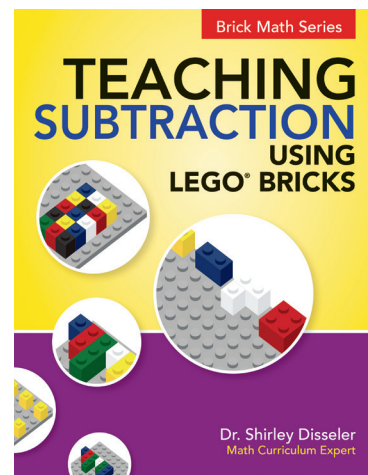
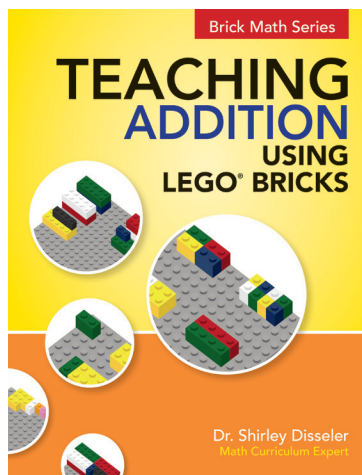
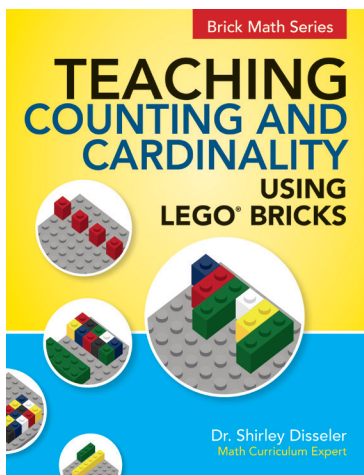


first. Remember, they won't have access to manipulatives during most tests when they have to show what they have learned.

- To keep bricks clean: Put the bricks in a hosiery bag and wash them on the top rack of the dishwasher. Let them air dry. Clean bricks before assigning sets to new students.
- To keep bricks from sliding off desks, use foam shelf liner cut into rectangular pieces, or large meat trays (you can often get these free from a local supermarket).
- Inventory the sets twice a year and replace bricks as needed. There are a variety of vendors online that sell specific bricks, both new and used. LEGO® retail stores also sell a variety of individual bricks.

# Brick Math Series: TEACHING MATH USING LEGO® BRICKS

[www.brick-math.com](http://www.brick-math.com)



## Companion Student Editions

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

