Bridges in Mathematics Tech-Enhanced Activity for Seesaw

Measuring the Area of a Rectangle

This activity is based on The Math Learning Center's Tech-Enhanced Activities (TEAs), adapted from the Bridges in Mathematics Second Edition PK–5 math curriculum. This activity is designed to support Bridges Grade 2, Unit 6, Module 2, Session 5 (login required). For standards alignment, refer to the Bridges session.

Overview

The work supports students' understanding of how addition can be used to estimate and measure the area of rectangles.		
	Students will:	**Assets**
Part 1	Explore how to add square units to estimate and measure the area of a rectangle.	What Is Area?
Part 2	Practice adding square units to estimate and measure the areas of rectangles.	Estimating & Measuring the Area of a Rectangle
Part 3	Use grid paper and multiple addition equations to determine a rectangle's area.	Using a Grid to Measure Area

Content notes:

1. The content of this TEA is closely aligned with Session 5. Part 1 aligns with steps 1–6 (Rectangle Z). Part 2 aligns with steps 7 and 8 (Rectangles A–D). Part 3 aligns with steps 9 and 10 (using grid paper and writing multiple addition equations).
2. Throughout this activity, any addition equation with a sum that matches the rectangle's area is acceptable if students can justify their reasoning. To help students begin to make connections between area and multiplication, encourage them to consider repeated addition using the rows or columns of square units.
3. The Challenge problems throughout this activity include content that is not directly tied to the steps of the session, including a real-world activity at the end of Part 2. In Part 3, it is not expected that all students will be able to solve the multiplication Challenge problems. (Any multiplication equation with a product that matches the rectangle's area is acceptable if students can justify their reasoning.)

Part 1: What Is Area? [Seesaw]

Students explore how to add square units to estimate and measure the area of a rectangle.

1. Choose your delivery method:

If delivering asynchronously	If delivering synchronously
- Students self-pace through the activity. - Students answer questions about estimating and measuring the area of a rectangle.	- Start a Zoom or Google Meet session. - Open the activity and share your screen. Have students open the activity on their own devices to follow along. - Use the activity to facilitate a discussion about estimating and measuring the area of a rectangle. Annotate your activity with student thinking. - For the first, second, and third estimates of Rectangle Z's area, have students first respond on their own pages before discussing the estimates together as a group. - Consider making a list of students' estimates for the area of Rectangle Z. As you progress through the first, second, and third estimates for the rectangle, ask students which estimates are unreasonable and cross those estimates off of your list. (You might keep track of the list by annotating a page.) - For the "Actual measure of Rectangle Z" page, pause to let students respond on their own pages.

2. Review student work for the "Actual measure of Rectangle Z" page to assess whether students can use addition to find the area of a rectangle.

Part 2: Estimating & Measuring the Area of a Rectangle [Seesaw]
Students practice adding square units to estimate and measure the areas of rectangles.

1. Choose your delivery method:

If delivering asynchronously	If delivering synchronously
● Students self-pace through the activity. ● Students answer questions about estimating and measuring the area of Rectangles A–D.	● Start a Zoom or Google Meet session. ● Open the activity and share your screen. Have students open the activity on their own devices to follow along. ● Use the activity to facilitate a discussion about how to estimate and measure the areas of rectangles. ● Work together to estimate and measure the areas of Rectangles A–C as you annotate your activity with student thinking. Students may also respond on their own devices, but it is not required for Rectangles A–C. ● For the two pages related to Rectangle D, pause to let students respond to the prompts on their own pages. ● The "Challenge" problem on the last page can be solved individually by students on their own devices or together as a group, depending on the needs of your class.

2. Review student work for the two pages related to Rectangle D to assess students' progress using addition to measure the area of a rectangle.

Part 3: Using a Grid to Measure Area [Seesaw]

Students use grid paper and multiple addition equations to determine a rectangle's area.

1. Choose your delivery method:

If delivering asynchronously	If delivering synchronously
• Students self-pace through the activity. • Students answer questions about using grid paper and addition to measure a rectangle's area. • Depending on the needs of your class, you might make the Challenge questions optional. It is not expected that all students will understand how to multiply to determine area.	• Start a Zoom or Google Meet session. • Open the activity and share your screen. Have students open the activity on their own devices to follow along. • Use the activity to facilitate a discussion about using grid paper and addition to measure a rectangle's area. • For "Write three equations for the area," allow time for students to respond on their own devices before reconvening as a group to discuss students' solutions.