

Bridges in Mathematics Tech-Enhanced Activity for Seesaw

Exploring Fractions

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 4, [Session 4](#) (login required). For standards alignment, refer to the Bridges session.

Overview

The work supports students’ understanding of equal parts and that equal parts of an identical whole do not have to have the same shape.		
	Students will:	Assets
Part 1	Divide a square into fourths in three different ways and consider how the different divisions are the same and different.	The Sandwich Problem
Part 2	Examine two different-shaped fourths to prove they are the same amount of a whole.	Sandwich Pieces
Part 3	Examine another iteration of fourths to demonstrate that equal parts of identical wholes do not have to be the same shape.	One-Fourth of a Sandwich

Content notes:

1. The content of this TEA is closely aligned with Session 4. Part 1 aligns with steps 2–5. Part 2 aligns with step 6–7, 9, and 13. Part 3 also aligns with Step 13. Students use grids and square tiles to determine the amount of each fourth of the girls’ sandwiches.
2. Due to the digital nature of TEAs, the paper-folding mentioned in steps 8 and 10–12 is omitted. The digital tools provided in lieu of paper-folding are the square and triangle tiles in Parts 2 and 3. The creation of a poster and working together in groups is also omitted from this TEA. Students show their thinking with both their models and with digital tiles and drawings, and with verbal or written explanations.

Part 1: The Sandwich Problem [[Seesaw](#)]

Students divide a square into fourths in three different ways and consider how the different divisions are the same and different.

1. Choose your delivery method:

If delivering asynchronously	If delivering synchronously
<ul style="list-style-type: none">● Students sketch sandwiches divided into fourths and identify similarities and differences in the fractional representations.	<ul style="list-style-type: none">● Start a Zoom or Google Meet session.● Open the activity and share your screen. Students do not need their own copy of the activity.● Facilitate a discussion about what each girl's sandwich looks like. Invite students to draw the sandwich on a piece of paper and hold it up to the camera to share their thinking before revealing what the sandwiches look like on the "Three sandwiches" page.● On the "Same and different" and "Think about it ..." pages, facilitate a discussion about how the fourths are the same and different. Invite students to suggest ways in which they could determine the amount of each fourth of a sandwich before closing the session.

Part 2: Sandwich Pieces [\[Seesaw\]](#)

Students examine two different-shaped fourths to prove they are the same amount of a whole.

1. Choose your delivery method:

If delivering asynchronously	If delivering synchronously
<ul style="list-style-type: none">● Students self-pace through the activity.● Students study each page, build fourths with square tiles, and move the tiles to prove that the two representations of fourths are equal.	<ul style="list-style-type: none">● Start a Zoom or Google Meet session.● Open the activity and share your screen. Students do not yet need to open their copy.● Use the “What do you think?” page to facilitate a discussion of whether or not the girls are correct in thinking their sandwich fourths are different sizes. Invite students to share ideas for ways to know for sure.● Have students open their copies of the activity.● Preview the next two pages and explain that students will use square tiles to build fourths of the sandwiches. Students will then determine whether the sandwich fourths are equal or not.● Invite students to complete the rest of the pages independently.

Part 3: One-Fourth of a Sandwich [[Seesaw](#)]

Students examine another iteration of fourths to demonstrate that equal parts of identical wholes do not have to be the same shape.

1. Choose your delivery method:

If delivering asynchronously	If delivering synchronously
<ul style="list-style-type: none">● Students self-pace through the activity.● They build fourths with square and triangular tiles and prove that multiple representations of fourths are equal.	<ul style="list-style-type: none">● Start a Zoom or Google Meet session.● Open the activity and share your screen. Students do not yet need to open the activity.● Facilitate a discussion about whether it's feasible to build a triangular fourth with square tiles, ultimately coming to the agreement that it isn't possible. If students don't come up with the idea to cut the squares in half, share this thinking on the first of the "Cary's sandwich" pages.● On the third "Cary's sandwich" page, have students open their copy of the activity. Invite them to build one-fourth of Cary's sandwich in their own activity.● Work with students to see how their fourths look the same or different and to determine the totals on the "Squares and triangles" page.● Invite students to navigate to the last page, write their name in the box, and use the Seesaw tools to show how they'd cut their sandwich. Discuss the different ways students in the class decide to cut their sandwiches.