Bridges in Mathematics Tech-Enhanced Activity for Seesaw **Shape Attributes**

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 1, <u>Session 4</u> and <u>Session 5</u> (login required). For standards alignment, refer to the Bridges sessions.

Overview

The work supports students' understanding of defining attributes of shapes.		
	Students will:	Assets
Part 1	Sort and define triangles and quadrilaterals.	Triangles & Quadrilaterals
Part 2	Sort quadrilaterals based on specific defining attributes, such as right angles and parallel lines.	Sorting Quadrilaterals
Part 3	Use their knowledge of defining attributes to determine mystery shapes from a series of clues.	Guess My Shape

Content notes:

- 1. The content of this TEA aligns with Session 4 and Session 5. Part 1 focuses on sorting geoboard quadrilaterals and triangles. Steps 4 and 5 from Session 4 are omitted.
- 2. Part 2 provides students with various ways to sort quadrilaterals, similar to steps 6–8 in Session 4. The attributes for various sorts are provided in the TEA, rather than being generated by students. This is done to ensure all attributes get discussed in an asynchronous setting. Part 3 aligns with Session 5. It uses the same shapes and clues that are presented in the session.

Part 1: Triangles & Quadrilaterals [Seesaw]

Students sort and define triangles and quadrilaterals.

1. Choose your delivery method:

If delivering asynchronously

- Students self-pace through the activity.
- Students study each page, and sort shapes as suggested. They examine shape attributes to define them as triangles or quadrilaterals.

If delivering synchronously

- Start a Zoom or Google Meet session.
- Open the activity and share your screen. Students do not yet need to open their copy.
- Facilitate a discussion of the geoboard shapes. Encourage students to notice some of the attributes of the shapes. If the opportunity arises during the discussion, you may bring up some of the vocabulary from the module, such as parallel sides, right angles, vertices, and congruent. These terms will be discussed fully in Part 2.
- After defining the terms triangle and quadrilateral on the "Triangles and quadrilaterals" page, explain that students will be sorting the shapes in the rest of Part 1.
- Have students open their copy of the activity.
- Preview the last four pages and invite students to complete them independently.
- 2. Prior to Part 2, review student work on the last few pages to gauge student understanding with sorting and defining triangles and quadrilaterals by attributes.

Part 2: Sorting Quadrilaterals [Seesaw]

Students sort quadrilaterals based on specific defining attributes, such as right angles and parallel lines.

1. Choose your delivery method:

If delivering asynchronously

- Students self-pace through the activity.
- Students study each page and sort the shapes multiple times, based on the defining attributes presented throughout Part 2.

If delivering synchronously

- Start a Zoom or Google Meet session.
- Open the activity and share your screen. Students do not yet need to open their copy.
- Facilitate a discussion about what students notice about the quadrilaterals, using the mathematical terms of the session when appropriate (e.g., congruent, parallel, right angles, and symmetry).
- On the "Quadrilateral sort" page, sort the quadrilaterals into two groups with student input.
- For the remaining sorting pages, beginning with "Right angles" and ending with "Congruent sides sort," introduce and discuss each term with students. Sort 3–4 quadrilaterals on each of the subsequent pages, letting students know they'll do the full sort by each attribute independently.
- Have students open their copy of the activity.
- Preview the last two pages and invite students to complete the sorts and the "True or false" page independently.

Part 3: Guess My Shape [Seesaw]

Students use their knowledge of defining attributes to determine mystery shapes from a series of clues.

1. Choose your delivery method:

If delivering asynchronously

- Students self-pace through the activity.
- Students study each page and use attribute clues to determine the hidden shape.

If delivering synchronously

- Start a Zoom or Google Meet session.
- Open the activity and share your screen. Students do not yet need to open their copy.
- Facilitate a discussion of the shapes on the "Guess My Shape" page. Invite students to name some of the attributes applied to quadrilaterals in Part 2 that can also be applied to other shapes shown on this page.
- With student input, work through the "Guess My Shape 1" page, asking students which shapes should be eliminated by the clues and why.
- Have students open their copies of the activity.
- Explain that they will continue playing Guess My Shape independently with the clues provided. There are three more rounds of Guess My Shape.
- Invite students to complete the remaining pages independently.
- 2. As an extension, you may invite students to create their own series of "Guess My Shape" clues either for a family member at home or for other students in the classroom.