

Guess My Rule

Whole Group

Small Group

The teacher sorts three or four shapes into two categories according to a secret rule they have determined ahead of time (for example, triangles vs. rectangles). Then, the teacher asks children to guess their rule and figure out which category each additional shape should be sorted into. Once most children appear to have figured out the rule, the teacher asks the children to Think-Pair-Share to describe it. The teacher then plays again with another rule..

Primary Objectives

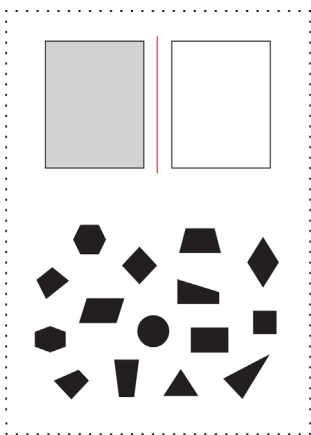
- Identifying shapes and describing the characteristics of shapes
- Sorting shapes based on different rules, such as shape family (for example, triangles vs. rectangles), geometric features (for example, shapes with four sides/angles vs. shapes with five sides/angles), and geometric properties (for example, shapes with four equal length sides vs. shapes without)

Materials

- Set of at least 15 shapes. You can use pattern blocks, tangrams, attribute blocks, and/or shapes you make from foam board or cardstock.
- Shape Sorting Mats (two sheets of paper of different colors)
- Think-Pair-Share Cards
- Listen and Speak Cards

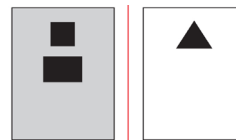
How to Play the Activity

The activity steps icons below outline the steps of the activity. Print these icons as cards and share them to help children remember the steps. They're also a helpful scaffold for children!



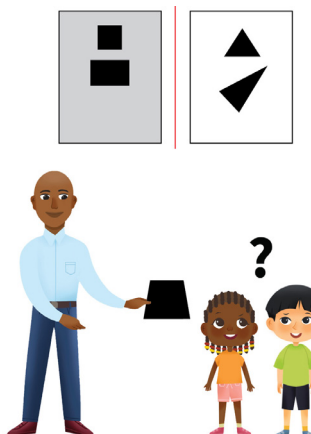
Setup 1

Gather 15 shapes and two pieces of blank paper in two different colors.



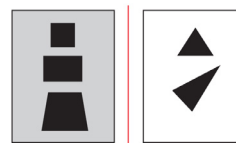
Step 1

Teacher sorts four shapes based on the predetermined sorting rule.



Step 2

Teacher holds up the next shape and asks children to figure out where the shape belongs by guessing the sorting rule.



Step 3

Teacher verifies the correct answer and places the shape, continuing with more shapes until children can verbalize the rule.



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Teacher's Guide

Instructions for introducing the activity to the **Whole Group**.

Activity Set-Up

- Choose which sorting rules and shape sets you are going to use. Review the Sorting Rules Handout for ideas.
- **To make the math easier**, use familiar shapes (for example, circles, triangles, squares, rectangles).
- **To make the math and executive function (EF) easier**, use easier sorting rules that include shapes with very different properties (for example, squares vs. triangles).
- **To make the math harder**, use less familiar shapes (for example, hexagons, trapezoids).
- **To make the math and executive function (EF) harder**, use more difficult sorting rules that include shapes with similar shape properties (for example, rectangles vs. squares) or are based on properties (for example, shapes with more than one right angle vs. those without).

Activity Warm-Up

- ***Today, we're going to do an activity with shapes. First, we're going to talk about the shapes we're going to use.***
- Using shapes from the shape set, show examples of shapes you will be using during the activity. Name the shapes that will be focused on during the activity.
- If you're introducing new shapes to children, consider using the Shape Glossary Handout for definitions, language, tips, and examples.

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Introduce the Activity

- **We're going to play a shape guessing game! It's called Guess My Rule. For some parts of this game, no one can talk—not even the teacher!**
- **Watch carefully as I sort shapes here** (gesture to one side of the Shape Mat) **or here** (gesture to other side of the Shape Mat) **and guess the rule I'm thinking about. Why am I putting some shapes here** (gesture) **and other shapes here** (gesture)?
- Show children the shape set.

Model the Activity

- **Let's give it a try! First, I'm going to put some shapes in two different groups following my secret rule.**
- **Put one shape at a time on either side of the Shape Sorting Mats, following the chosen rule (for example, triangles on one side and circles on the other). Place at least two shapes on each of the Sorting Mats (two sheets of paper of different colors).**
- **Now I need your help figuring out which side this shape** (hold up another shape) **should go on—but remember, your guess has to follow my secret rule!**
- **Hold up another shape without telling children which side it belongs on.**
- **Shhh ... remember, no one talks during this part!**
- Show the Listen and Speak cards to remind children to remain silent for this part. Encourage children to point as needed.
- If children need a reminder of what the Listen and Speak cards means, explain: **When I hold up this picture, we all have to be really quiet. Let's practice!**
- **To make the executive function (EF) easier,** use the Listen and Speak cards.
- **To make the executive function (EF) harder,** omit the Listen and Speak cards.

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<ul style="list-style-type: none"> ■ On the count of three, everyone quietly point to the side you think this shape should go on. One, two, three... ■ Place the shape on the correct side of the Shape Mat. 	
<ul style="list-style-type: none"> ■ Let's try another shape (hold up another shape). 	<ul style="list-style-type: none"> ■ Show another shape and continue the steps above (showing a shape, children pointing, placing the shape) until you have added at least three additional shapes (or until most children are consistently correct), with children quietly guessing where each belongs.
<ul style="list-style-type: none"> ■ Now, pause and Think-Pair-Share with your partner and guess my rule. What was my rule for sorting these shapes? 	<ul style="list-style-type: none"> ■ Remove the Listen and Speak cards and encourage children to Think-Pair-Share what they think the sorting rule is and why. ■ Review Think-Pair-Share as necessary. ■ To make the executive function (EF) easier, use the Think-Pair-Share cards. ■ To make the executive function (EF) harder, omit the Think-Pair-Share cards.
<ul style="list-style-type: none"> ■ What was my rule? 	<ul style="list-style-type: none"> ■ Ask children to share their guess for the rule after all have engaged in Think-Pair-Share with a partner.
<ul style="list-style-type: none"> ■ You got it! My rule was... 	<ul style="list-style-type: none"> ■ Confirm the sorting rule, reviewing why each shape met the rule or not as needed.
<ul style="list-style-type: none"> ■ Let's try another rule! 	<ul style="list-style-type: none"> ■ As time allows, play additional rounds using new sorting rules.

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Summary of Activity Adaptations

This is a summary of all the available adaptations to make Cookie Game easier or harder to accommodate the needs of your students. Whether the adaptation is easier or harder depends on each student's math or executive function (EF) skills.

	Make It Easier	Make It Harder
Math	<ul style="list-style-type: none">Use familiar shapes (for example, circles, triangles, squares, rectangles).	<ul style="list-style-type: none">Use less familiar shapes (for example, hexagons, trapezoids).
EF	<ul style="list-style-type: none">Use the Listen and Speak cards.Use the Think-Pair-Share cards.	<ul style="list-style-type: none">Omit the Listen and Speak cards.Omit the Think-Pair-Share cards.
Math & EF	<ul style="list-style-type: none">Use easier sorting rules that include shapes with very different properties (for example, squares vs. triangles).	<ul style="list-style-type: none">Use more difficult sorting rules that include shapes with similar shape properties (for example, rectangles vs. squares) or are based on properties (for example, shapes with more than one right angle vs. those without).

Explore The Executive Function And Math Skills In This Activity

Visit the website for resources to support teaching this activity.

What to Do Next

Do some children need more support or more challenge? Try the adaptation ideas to make the activity easier or harder. On another day, do this activity in **Small Group**.

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Primary Objectives

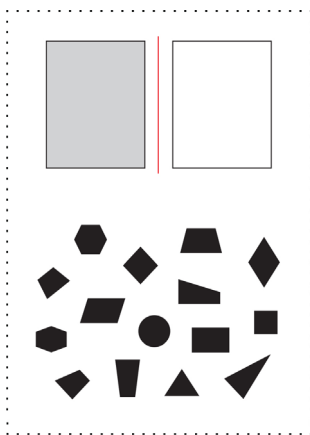
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Materials

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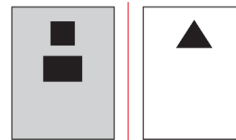
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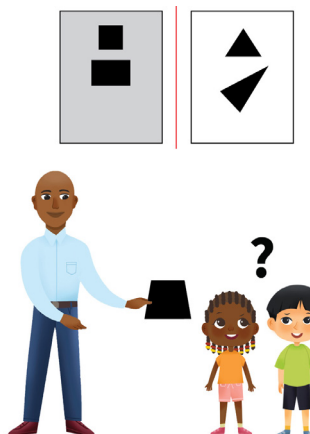
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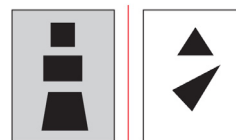
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Teacher sorts four shapes based on the predetermined sorting rule.



Step 2

Teacher holds up the next shape and asks children to figure out where the shape belongs by guessing the sorting rule.



Step 3

Teacher verifies the correct answer and places the shape, continuing with more shapes until children can verbalize the rule.



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Teacher's Guide

Instructions for introducing the activity to the **Small Group**.

Activity Set-Up

- Choose which sorting rules and shape sets you are going to use. Review the Guess My Rule Levels Handout for ideas.
- **To make the math easier**, use familiar shapes (for example, circles, triangles, squares, rectangles).
- **To make the math and executive function (EF) easier**, use easier sorting rules (for example, squares vs. triangles) that include shapes with very different shape properties (for example, triangle, circle, and rectangle or square).
- **To make the math harder**, use less familiar shapes (for example, hexagons, trapezoids).
- **To make the math and executive function (EF) harder**, use more difficult sorting rules (for example, rectangles vs. not rectangles, trapezoids vs. rhombuses), including shapes with similar shape properties (for example, rectangle and square) or sorting rules based on properties (for example, shapes with more than one right angle vs. without).

Activity Warm-Up

- ***Today, we're going to do an activity with shapes. First, we're going to talk about the shapes we're going to use.***
- Using shapes from the shape set, show examples of shapes you will be using during the activity. Name the shapes that will be focused on during the activity.
- If you're introducing new shapes to children, consider using the Shape Glossary Handout for definitions, language, tips, and examples.

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Introduce the Activity

- ***We're going to play a shape guessing game! It's called Guess My Rule. For some parts of this game, no one can talk—not even the teacher!***
- ***Watch carefully as I sort shapes here*** (gesture to one side of the Shape Mat) ***or here*** (gesture to other side of the Shape Mat) ***and guess the rule I'm thinking about. Why am I putting some shapes here*** (gesture) ***and other shapes here*** (gesture)?
- Show children the shape set.

Model the Activity

- ***Watch carefully as I sort shapes here or here following my secret rule.***
- Put one shape at a time on either side of the Shape Sorting Mats, following the chosen rule (for example, triangles on one side and circles on the other). Place at least two shapes on each side of the Shape Sorting Mats.
- ***Now I need your help! Where does this shape go?***
- Hold up another shape without telling children which side it belongs on.

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Time to Play!

- **Help me figure out which side this shape** (hold up another shape) **should go on—but remember, your guess has to follow my secret rule!**

- Continue holding up the shape between the two sides without telling children which side it belongs on.

- **Shhh... remember, no one talks during this part! On the count of three, everyone quietly point to the side you think this shape should go on. One, two, three...**

- Show the Listen and Speak cards to remind children to remain silent for this part. Encourage children to point as needed.
- Place the shape on the correct side of the Shape Mat, regardless of children's pointing.
- **To make the math easier**, for the first sorting rule, explain and demonstrate your thinking aloud while sorting the shapes. For example, if sorting by the number of sides, point to the sides on the shapes and count aloud, "1, 2, 3 sides here. 1, 2, 3, 4 sides here."
- **To make the executive function (EF) easier**, use the Listen and Speak cards.
- **To make the executive function (EF) harder**, omit the Listen and Speak cards.

- **Let's try another shape** (hold up another shape).

- Show another shape and continue the steps above (showing a shape, children pointing, placing the shape) until you have added at least three additional shapes (or until most children are consistently correct), with children quietly guessing where each belongs.
- **To make the math easier**, if most children miss a rule, re-sort the shapes (with the same rule), allowing and encouraging children to talk this time and to compare and contrast the attributes of the shapes as they are sorted.

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<ul style="list-style-type: none">■ Now, pause and Think-Pair-Share with your partner and guess my rule. What was my rule for sorting these shapes?■ If needed, probe: How do you know you're right? Tell me how the shapes fit the rule.	<ul style="list-style-type: none">■ Remove the Listen and Speak cards and encourage children to Think-Pair-Share what they think the sorting rule is and why.■ Review Think-Pair-Share as necessary.■ To make the executive function (EF) easier, use the Think-Pair-Share cards.■ To make the math harder, have children describe why each individual shape fits or does not fit the rule.■ To make the executive function (EF) harder, omit the Think-Pair-Share cards. Have children draw additional shapes fitting the rule (on whiteboard, paper, or on the floor with their finger)
<ul style="list-style-type: none">■ What was my rule?	<ul style="list-style-type: none">■ Ask children to share their guess for the rule after all children have engaged in Think-Pair-Share with a partner.
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<ul style="list-style-type: none">■ Let's try another rule!	<ul style="list-style-type: none">■ As time allows, play additional rounds using new sorting rules.■ To make the executive function (EF) easier, explicitly tell children when you are changing the rule or use different shapes when you switch rules.■ To make the executive function (EF) harder, when switching sorting rules, start with some of the same shapes that were used for the last rule but follow a different rule this time.

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EF	<ul style="list-style-type: none"> Use the Listen and Speak cards. Use the Think-Pair-Share cards. Explicitly tell children when you are changing the rule or use different shapes when you switch rules. 	<ul style="list-style-type: none"> Omit the Listen and Speak cards. Omit the Think-Pair-Share cards. Have children draw additional shapes fitting the rule (on whiteboard, paper, or on the floor with their finger) When switching sorting rules, start with some of the same shapes that were used for the last rule but follow a different rule this time.
Math & EF	<ul style="list-style-type: none"> Use easier sorting rules (for example, squares vs. triangles) that include shapes with very different shape properties (for example, triangle, circle, and rectangle or square). 	<ul style="list-style-type: none"> Use more difficult sorting rules (for example, rectangles vs. not rectangles, trapezoids vs. rhombuses), including shapes with similar shape properties (for example, rectangle and square) or sorting rules based on properties (for example, shapes with more than one right angle vs. without).

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Explore The Executive Function And Math Skills In This Activity

Visit the website for resources to support teaching this activity.

What to Do Next

Do some students need more support or more challenge? Try the adaptations provided for Small Group. Continue working in Small Groups with teacher support until students can comfortably play with minimal teacher guidance. Although there is no Centers version for Guess My Rule, some children enjoy the activity so much they may play it on their own during Center time!