Matching Shapes

Whole Group

-

Small Group

Describing Shapes

Naming Shapes

Center Time

Begin with two sets of exactly the same shapes. Each set should have six to eight shapes. Place three to four shapes from one set in the Shape Box so children cannot see them. Place the same shapes from the other set on the table so children can see them. Children take turns pointing to one of the visible shapes on the table and finding the same shape in the box. Children then check their responses by physically matching the two shapes. Children choose another shape, switch roles, and play again.

Primary Objectives

- Matching familiar shapes (for example, circle, square, typical triangle, rectangle) to a target shape
- Matching less familiar shapes (for example, hexagon, rhombus, trapezoid, atypical triangle)

Materials

- Two identical sets of six to eight shapes each. You can use pattern blocks, tangrams, attribute blocks, and/ or shapes you make from foam board;
- we do not recommend paper shapes.
- Shape Box: Children should be able to reach into the box with both hands, but not see inside.

How to Play the Activity





Step 1

Teacher places three to four different shapes in the Shape Box. (Child has the second set of matching shapes.)



Step 2

Child holds up one of the shapes for the Teacher to find in the Shape Box.



Step 3

Teacher feels around in the Shape Box for the matching shape without looking inside.



Step 4

Teacher pulls out the shape they think is the match. They check with Child and physically match the shapes to check.



Step 5

Teacher and Child switch roles.

Matching Shapes Whole Group Naming Shapes Describing Shapes

Teacher's Guide

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

Activity Set-Up		
	Choose which shapes you're going to use and place one set in the Shape Box.	
Activity Warm-Up		
Today, we're going to do an activity with shapes.	 Using shapes from the shape set, show examples of shapes you will be using during the activity. Name the shapes that will be 	
■ First, we're going to talk about the	focused on during the activity. Then, pass out the shapes and let children freely explore and play with them for a few minutes.	

- shapes we're going to use today, then you can feel and look at them.
- If you're introducing new shapes to children, consider using the Shape glossary handout for definitions, language, tips, and examples.

Introduce the Activity

- We're going to play a shape matching game! I'm going to show you a shape and you have to feel inside the Shape Box and find the same shape—the exact same shape and size—without looking. Let's practice together!
- Show children the Shape Box and shape set shapes.
- To make the math easier, use familiar shapes (for example, circles, triangles, squares, rectangles).
- To make the math and executive function (EF) easier, use only easier examples of shapes (for example, an equilateral triangle with all sides of the same length) or use shapes with very different shape properties (for example, a triangle, a circle, and a 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 examples of shapes (for example, a long, skinny triangle) or use shapes with similar shape properties (for example, a rectangle and a square).

Matching Shapes Whole Group

Naming Shapes Small Group

Describing Shapes

■ Let me show you how to do it!	Choose one child to participate in a demonstration of the activity as your partner (or if you have another adult in the room, they can be your partner). You may also choose to have a different child engage in each step of the activity to help maintain engagement.
■ First, I hide the shapes in the box.	 Point to the first activity step icon card. Hold up a triangle, square, circle, and rectangle from one shape set one at a time. Have children say the name of each shape as you hold it up. Have your partner hide each shape in the box after it has been named.
	■ To make the math easier, review the defining features (for example, number of sides, vertices [angles]) of the shapes one by one as you put them in the Shape Box.
	■ To make the executive function (EF) easier, decrease the number of shapes in the box or use the activity step icons.
	■ To make the executive function (EF) harder, increase the number of shapes in the box or omit the activity step icons.
 Now it's time to shake the Shape Box. Optional: Sing to the tune of "Shake Your Booty": Shake, shake, shake. Shake, shake, shake the shapes! 	■ Have the child shake the box of shapes.
Next, my partner is going to choose a shape from the table that I need to find in the Shape Box. Which shape should I find?	 Point to the second activity step icon card. Encourage the child to point to one shape from the identical second shape set on the table.

Matching Shapes Whole Group

Naming Shapes Small Group

Describing Shapes Center Time

■ Then, I need to feel in the Shape Box to find the same shape just by feelin—no peeking! Okay, I'm going to find a triangle [or the name of shape the child chose].	 Point to the third activity step icon card. To make the math easier, hold up a shape that exactly matches the target shape in the box, run your fingers along the sides, and then point to each vertex (angle) as you count.
What should I feel for if I'm trying to find a triangle?	 Hold up the shape you'll be trying to match. Encourage children to provide (or repeat if you reviewed the information in the previous step) information about the shape you're looking for in the box. For example, if you're searching for a triangle, they may say something like "Three corners!" Summarize children's correct ideas. For example, "I need a triangle, so I should feel for three angles and three straight sides."
I'm going to remember what the triangle looks like and feel in the box for a shape that matches this triangle exactly. Watch me.	Feel around in the box, talking about what you are feeling as you touch each shape. For example: "This one is round, so that's not a triangle. This one has four sides; that's too many." And so on.
■ Ta-da!	Pull the correct shape out of the box.
Now, I check with my partner to make sure the shapes match—that they are exactly the same shape and the same size.	 Point to the fourth activity step icon card. Guide the child in matching shapes, one on top of the other, to confirm that they match exactly.
We did it! Now we switch roles and play again!	Point to the last activity step icon card.

Matching Shapes Whole Group

Naming Shapes Small Group

Describing Shapes Center Time

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	 Use familiar shapes (for example, circles, triangles, squares, rectangles). Review the defining features (for example, number of sides, vertices [angles]) of the shapes one by one as you put them in the Shape Box. Hold up a shape that exactly matches the target shape in the box, run your fingers along the sides, and then point to each vertex (angle) as you count. 	 Use less familiar shapes (for example, hexagons, trapezoids).
EF	Decrease the number of shapes in the box or use the activity step icons.	• Increase the number of shapes in the box or omit the activity step icons.
Math & EF	Use only easier examples of shapes (for example, an equilateral triangle with all sides of the same length) or use shapes with very different shape properties (for example, a triangle, a circle, and a rectangle or square).	 Use more difficult examples of shapes (for example, a long, skinny triangle) or use shapes with similar shape properties (for example, a rectangle and a square).

Explore The Executive Function And Math Skills In This Activity

Visit the website for resources to support teaching this activity.

What to Do Next

Are some students ready for more challenge? Try the adaptation ideas to make the activity easier or harder. For children who can match most shapes to a target shape, introduce the **Naming Shapes** version. On another day, do this activity in **Small Group**.



Matching Shapes

Small Group

Whole Group

Naming Shapes

Center Time

Describing Shapes

Begin with two sets of exactly the same shapes. Each set should have six to eight shapes. Place three to four shapes from one set in the Shape Box so children cannot see them. Place the same shapes from the other set on the table so children can see them. Children take turns pointing to one of the visible shapes on the table and finding the same shape in the box. Children then check their responses by physically matching the two shapes. Children choose another shape, switch roles, and play again.

Primary Objectives

- Matching familiar shapes (for example, circle, square, typical triangle, rectangle) to a target shape
- Matching less familiar shapes (for example, hexagon, rhombus, trapezoid, atypical triangle)

Materials

- Two identical sets of six to eight shapes each per pair of children. You can use pattern blocks, tangrams, attribute blocks, and/or shapes you make from foam board; we do not recommend paper shapes.
- Shape Box: Children should be able to reach into the box with both hands, but not see inside.
- Shape and Shape Box role cards
- Think-Pair-Share 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!



Step 1

Child 1 places three to four shapes in the Shape Box. (Child 2 has the second set of matching shapes.)



Step 2

Child 2 holds up one of the shapes for Child 1 to find in the Shape Box.



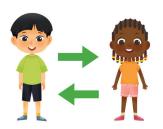
Step 3

Child 1 feels around in the Shape Box for the matching shape without looking inside.



Step 4

Child 1 pulls out the shape they think is the match. They check with their partner and physically match the shapes to check.



Step 5

Children switch roles.

Matching Shapes	Whole Group
Naming Shapes	Small Group
Describing Shapes	Center Time

Teacher's Guide

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

Activity Set-Up		
	Choose which shapes you're going to use and place one set in the Shape Box.	
	■ To make the math easier, use familiar shapes (for example, circles, triangles, squares, rectangles).	
	■ To make the math and executive function (EF) easier, use only easier examples of shapes (for example, an equilateral triangle with all sides of the same length) or use shapes with very different shape properties (for example, a triangle, a circle, and a 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 examples of shapes (for example, a long, skinny triangle) or use shapes with similar shape properties (for example, a rectangle and a square).	

Matching Shapes Whole Group

Naming Shapes Small Group

Describing Shapes Center Time

Activity Warm-Up

- Today, we're going to do an activity with shapes.
- First, we're going to talk about the shapes, then you can feel and look at them.
- 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. Then, pass out the shapes and let children freely explore and play with them for a few minutes.
- Think-Pair-Share with your partner what is the name of this shape and how do you know?
- One at a time, show children the shapes they'll be matching during the activity. Make sure you orient the shapes, including the triangle, in different ways.
- 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.
- So, I heard you say that this is a triangle [or name of shape children are reviewing] and that you know because it has three sides and three angles [defining features children mentioned during their Think-Pair-Share].
- Summarize children's ideas by pointing to the sides and vertices (angles) of each shape as you describe it. See Shape glossary for examples of language.
- To make the math easier, allow children to hold the shapes and run their hands along the sides and vertices (angles) as you model the same.
- Repeat the process with each shape you will be using during the activity.

Naming Shapes

Nescribing Shapes

Describing Shapes

Whole Group

Center Time

Introduce the Activity		
• We're going to play a shape matching game. In this game, we're going to find shape matches without looking. We're going to use only our hands to feel the shapes!	■ Show children the Shape Box and shape set shapes.	
We're going to use these to help us remember the steps.	 Point to the activity step icons. To make the executive function (EF) easier, use the activity step icons. To make the executive function (EF) harder, omit the activity step icons. 	
Model the Activity		
■ First, I'll put the shapes in the box.	 Point to the first activity step icon card. Put the shapes from the first shape set in the box. 	
Then, my partner will choose one of these shapes.	 Point to the second activity step icon card. Choose one child from the group to select a shape from the second shape set for you to find. 	
Now, I have to feel inside the box (without peeking!) to try to find the same shape in this box.	 Point to the third activity step icon card. Model describing the number of sides and angles you feel on different shapes, and then naming them while feeling around in the box. 	
Once I think I've found the right shape, I take it out of the box and ask my partner, "Am I right?" Then, I match the shapes to check.	 Point to the fourth activity step icon card Model how children can place the shapes on top of one another to check if they match. 	
Finally, we switch turns being the shape chooser and the shape finder and play again!	■ Point to the last activity step icon card.	

Matching Shapes Whole Group

Naming Shapes Small Group

Describing Shapes Center Time

Time to Play!

- Here are your shapes, Shape Box, and cards. Now you will take turns choosing the shape and finding the matching shape in the box.
- Give each pair of children a Shape Box, two shape sets (with only the shapes children are using during this session), and one set of role cards and activity step icons.
- [Child 1], It's your turn to be the shape finder and put the shapes in the box and then feel for the matching shape.
- Assign one student in each pair to be the shape chooser and one to be the shape finder, using the role cards if needed.
- [Child 2], It's your turn to be the shape chooser and pick a shape for your partner to match.
- To make the executive function (EF) easier, use the role cards.
 To make the executive function (EF) harder, omit the role cards.
- [Child 1], put the shapes in the box.

■ [Child 2], show your partner one shape.

- Show children the Shape Box and shape set shapes.
- [Child 1], You have to find the exact same shape in the box, but here's the trick... you can't look! You have to find the shape by feeling it. Once you think you have the same shape, pull it out of the box to check. You can only pull out one shape at a time.
- Child 1 feels in the box to try to find the matching shape.
- To make the math easier, if children are struggling while feeling in the box, you may also suggest, "Hold the shape by a vertex (angle) inside the box and count the sides. Now, count the vertices (angles)."
- To make the math harder, have children play a matching version: Feel for two shapes in the box that match exactly (are congruent). To make it even more challenging, these shapes might be two variations of the same shape category (for example, a right triangle matched to an equilateral triangle).
 - Or tell children you're going to pick a shape category (for example, rectangles) and include some examples and some non-examples (for example, rhombus, parallelograms) in the box. Challenge them to state if each shape is from the shape category or not and how they know, before pulling it out of the box to check.
- To make the executive function (EF) harder, place the shapes in the second set (on the table) out of view so the child feeling the shapes in the box does not have a visual cue and has to remember the defining features.

Matching Shapes Naming Shapes Small Group **Describing Shapes**

- [Child 1], ask your partner, Am I right?
- What do you both think? Is this a match?
- How do you know the shapes match? How can you check that they match?
- After the child pulls the shape out of the box, encourage children to physically match the shapes to decide whether they match.
- **To make the math easier,** direct children's attention to what does and does not match. Ask prompting questions such as, "How many sides does the shape have? How many vertices (angles)? Did it match? What's different?"

If a child pulls out an incorrect shape, explain why the shape is incorrect instead of simply saying their answer is wrong. For example, if the child is supposed to match a triangle but instead pulls out a square, you might say, "Well, that shape has four straight sides that are all of the same length. Triangles have only three sides. So, is that a triangle? No? Let's see if you can feel a shape that has three sides."

- It's time to switch roles and play again! If you were the shape chooser, you are now the shape finder. If you were the shape finder, now you get to be the shape chooser.
- Switch roles until each child gets at least two to three turns in each role, also switching the role cards if they're being used.

Development and Research in DREME Early Mathematics Education

Matching Shapes Whole Group

Naming Shapes Small Group

Describing Shapes Center Time

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	 Use familiar shapes (for example, circles, triangles, squares, rectangles). Allow children to hold the shapes and run their hands along the sides and vertices (angles) as you model the same. If children are struggling while feeling in the box, you may also suggest, "Hold the shape by a vertex (angle) inside the box and count the sides. Now, count the vertices (angles)." Direct children's attention to what does and does not match. Ask prompting questions such as, "How many sides does the shape have? How many vertices (angles)? Did it match? What's different?" If a child pulls out an incorrect shape, explain why the shape is incorrect instead of simply saying their answer is wrong. For example, if the child is supposed to match a triangle but instead pulls out a square, you might say, "Well, that shape has four straight sides that are all of the same length. Triangles have only three sides. So, is that a triangle? No? Let's see if you can feel a shape that has three sides." 	 Use less familiar shapes (for example, hexagons, trapezoids). Have children play a matching version: Feel for two shapes in the box that match exactly (are congruent). To make it even more challenging, these shapes might be two variations of the same shape category (for example, a right triangle matched to an equilateral triangle). Or tell children you're going to pick a shape category (for example, rectangles) and include some examples and some non-examples (for example, rhombus, parallelograms) in the box. Challenge them to state if each shape is from the shape category or not and how they know, before pulling it out of the box to check.

Matching Shapes

Naming Shapes

Describing Shapes

Whole Group

Small Group

Center Time

	Make It Easier	Make It Harder
EF	 Use the Think-Pair-Share cards. Use the activity step icons. Use the role cards. 	 Omit the Think-Pair-Share cards. Omit the activity step icons. Omit the role cards. Place the shapes in the second set (on the table) out of view so the child feeling the shapes in the box does not have a visual cue and has to remember the defining features.
Math & EF	Use only easier examples of shapes (for example, an equilateral triangle with all sides of the same length) or use shapes with very different shape properties (for example, a triangle, a circle, and a rectangle or square).	 Use more difficult examples of shapes (for example, a long, skinny triangle) or use shapes with similar shape properties (for example, a rectangle and a square).

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 Groups. Continue working in Small Groups with teacher support until students can comfortably play with minimal teacher guidance. Then have students practice the activity independently in **Center**. For children who can match most shapes, introduce the **Naming Shapes** version.



Matching Shapes

Small Group

Whole Group

Naming Shapes

Center Time

Describing Shapes

Begin with two sets of exactly the same shapes. Each set should have six to eight shapes. Place three to four shapes from one set in the Shape Box so children cannot see them. Place the same shapes from the other set on the table so children can see them. Children take turns pointing to one of the visible shapes on the table and finding the same shape in the box. Children then check their responses by physically matching the two shapes. Children choose another shape, switch roles, and play again.

Primary Objectives

- Matching familiar shapes (for example, circle, square, typical triangle, rectangle) to a target shape
- Matching less familiar shapes (for example, hexagon, rhombus, trapezoid, atypical triangle)

Materials

- Two identical sets of six to eight shapes each per pair of children. You can use pattern blocks, tangrams, attribute blocks, and/or shapes you make from foam board; we do not recommend paper shapes.
- Shape Box: Children should be able to reach into the box with both hands, but not see inside.
- Shape and Shape Box role 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!



Step 1

Child 1 places three to four shapes from the first set of shapes in the Shape Box. (Child 2 has the second set of matching shapes.



Step 2

Child 2 holds up one of the shapes for Child 1 to find in the Shape Box.



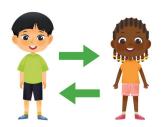
Step 3

Child 1 feels around in the Shape Box for the matching shape without looking inside.



Step 4

Child 1 pulls out the shape they think is the match. They check with their partner and physically match the shapes to check.



Step 5

Children switch roles.

Matching Shapes Whole Group

Naming Shapes Small Group

Describing Shapes Center Time

Teacher's Guide

Instructions for introducing the activity to the **Center**.

Activity Set-Up		
	Choose three to four shapes you will use and place them out in front of students.	
	■ To make the math easier, use familiar shapes (for example, circles, triangles, squares, rectangles).	
	■ To make the executive function (EF) easier, decrease the number of shapes in the box.	
	To make the math and executive function (EF) easier, use only easier examples of shapes (for example, an equilateral triangle with all sides of the same length) or use shapes with very different shape properties (for example, a triangle, a circle, and a 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 examples of shapes (for example, a long, skinny triangle) o use shapes with similar shape properties (for example, a rectangle and a square) or increase the number of shapes in the box.	
Introduce the Activity		
■ Today, the Shape Box shape matching game we've been playing together will be at [name] Center!	 Tell students that the activity will be in Centers to play on their own. We recommend playing the activity in Small Groups at least once before introducing it in Centers. 	
You will have the picture cards to help you remember how to play and to remind you whether you are the shape chooser or the shape matcher.		

Matching Shapes	Whole Group
Naming Shapes	Small Group
Describing Shapes	Center Time

Center Set-Up

- Let's remind ourselves how to play the game!
- To make the math easier, use the activity step icons or the role cards.
- **To make the math harder,** omit the activity step icons or the role cards.

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	 Use familiar shapes (for example, circles, triangles, squares, rectangles). Use the activity step icons or the role cards. 	 Use less familiar shapes (for example, hexagons, trapezoids). Omit the activity step icons or the role cards.
EF	Decrease the number of shapes in the box.	
Math & EF	Use only easier examples of shapes (for example, an equilateral triangle with all sides of the same length) or use shapes with very different shape properties (for example, a triangle, a circle, and a rectangle or square).	Use more difficult examples of shapes (for example, a long, skinny triangle) or use shapes with similar shape properties (for example, a rectangle and a square) or increase the number of shapes in the box.

Explore The Executive Function And Math Skills In This Activity

Visit the website for resources to support teaching this activity.

What to Do Next

Keep playing this activity in Centers throughout the year. Students who played the **Matching Shapes** version may switch to the **Naming Shapes** version once they've been introduced to it in Small Group and can match most shapes independently. Do some students need more support or more challenge? Try the adaptations provided above for Center.