

# Tips and Activities to Support Children's Shape Knowledge

by Barbrina Ertle

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# General tips and activities for helping your child learn to identify shapes

by Barbrina B. Ertle

Learning to identify shapes can be a lot of fun for children. It can prepare them for school and help them feel confident in math. But learning to identify shapes is not as easy as you might think. There is a lot to learn!

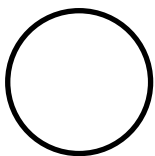
This booklet will address the following questions:

- **What shapes should I teach?**
- **What should I teach about shapes?**
- **What words do children need to know as they learn about shapes?**
- **How should I teach shapes?**

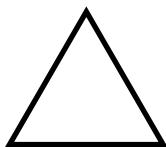
## What shapes should I teach?

- Young children are capable of learning many different shapes. In the beginning, you may want to start with flat (two-dimensional or 2D) shapes, such as circles, triangles, and squares, before teaching solid (or 3D) shapes, such as spheres, cubes, and cylinders.

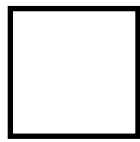
### Common 2D Shapes



circle



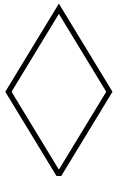
triangle



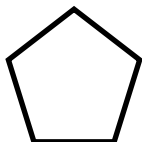
square



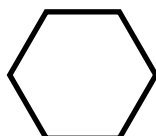
rectangle



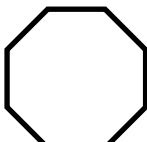
rhombus



pentagon

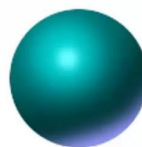


hexagon

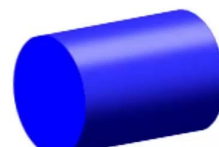


octagon

### Common 3D Shapes



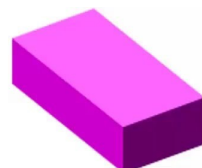
sphere



cylinder



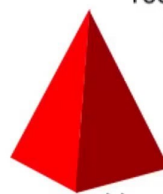
cone



rectangular prism



cube



pyramid

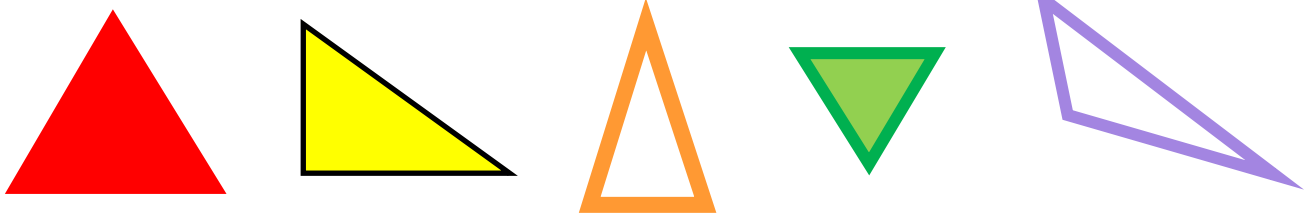


triangular prism

## What should I teach about shapes?

- Focus on helping children recognize and notice the qualities that make a shape that shape!
- Show different types of each shape. For example, instead of showing just the common triangles (the red, yellow, and orange), also show non typical triangles like the upside down green or the tilted purple.

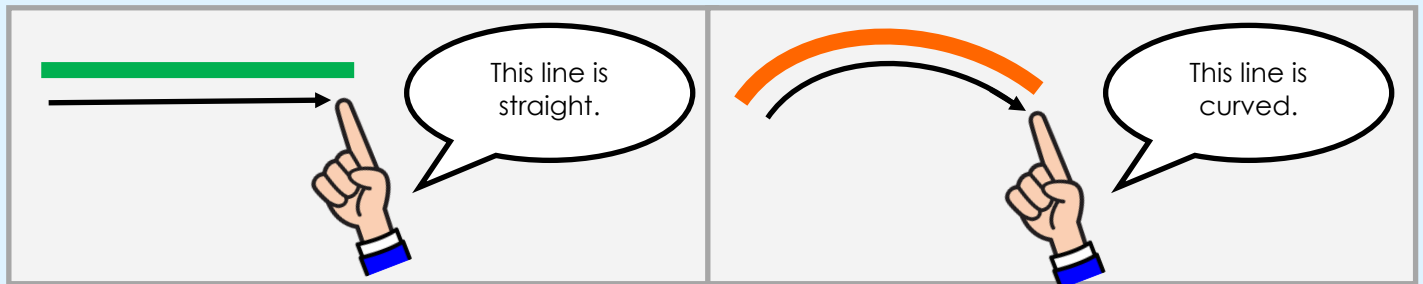
Different Triangles



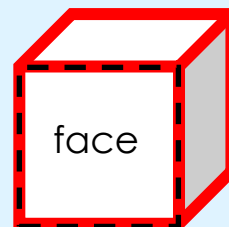
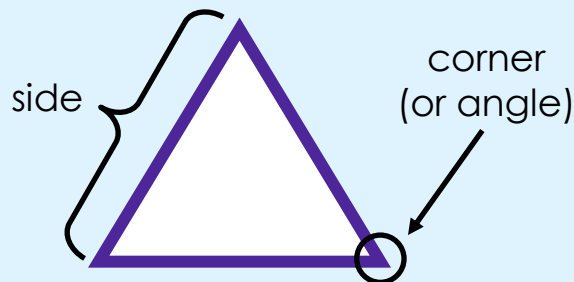
- Triangles can be big, or small. They can be any color. They can be solid, or they can just be an outline. The sides can be the same length, or they can be different lengths. They can be turned any which way! But they are all still triangles. Size, color, and position do not change the identity of shapes.

## What words do children need to know as they learn about shapes?

- Straight
- Curved



- They will also need to know the parts of a shape:

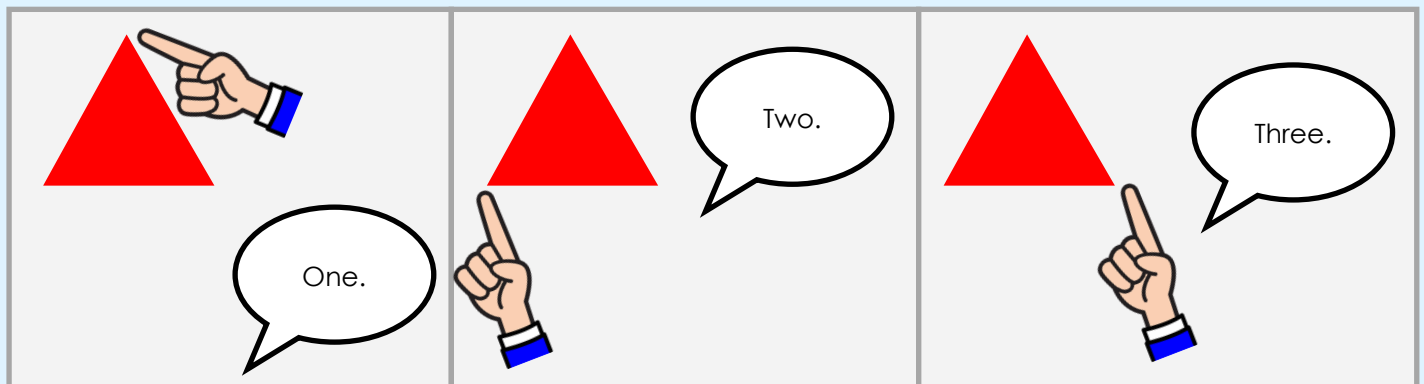
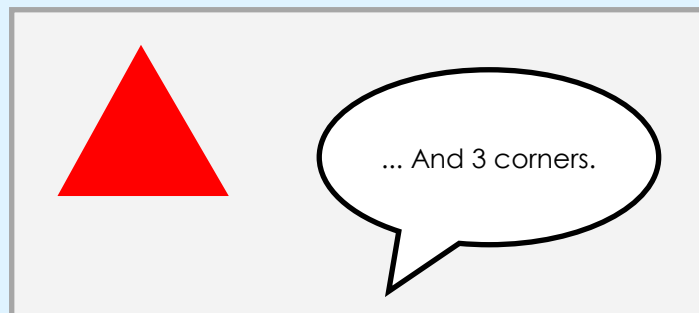
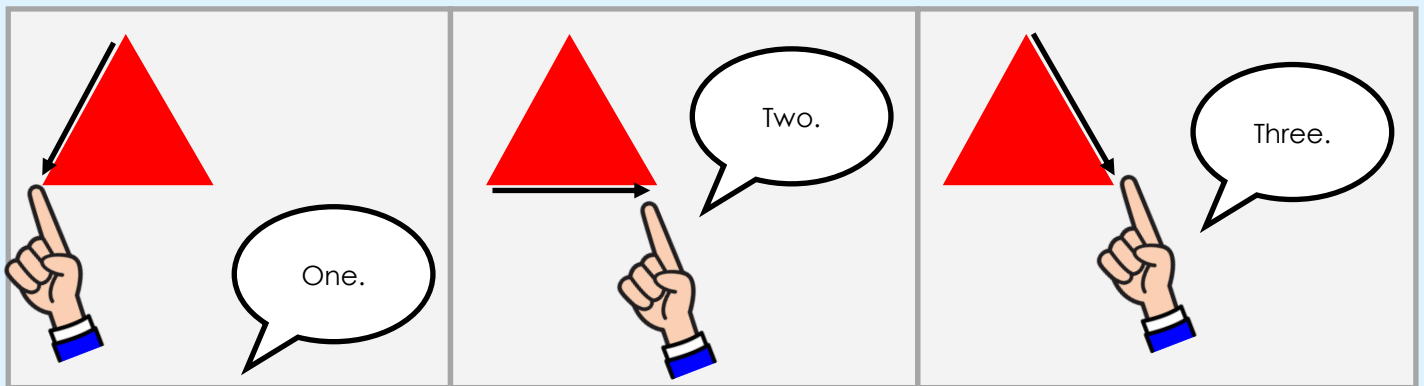
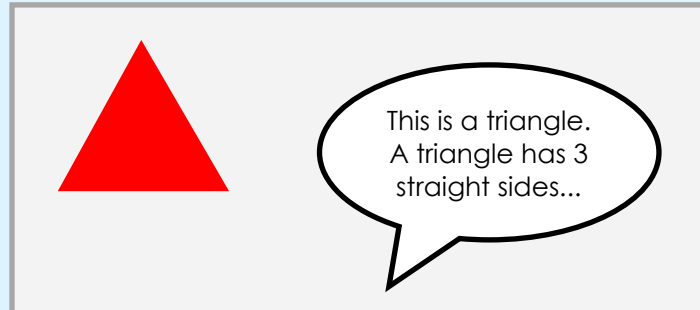


- Other words that may be helpful:

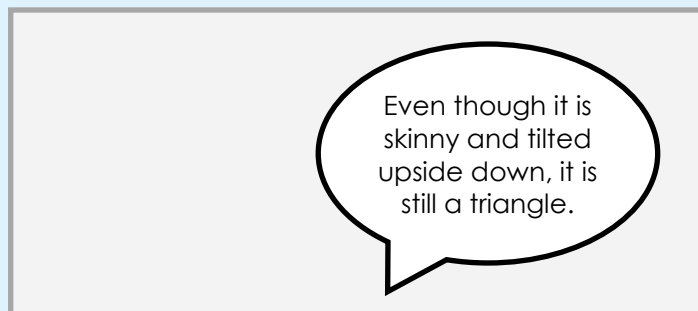
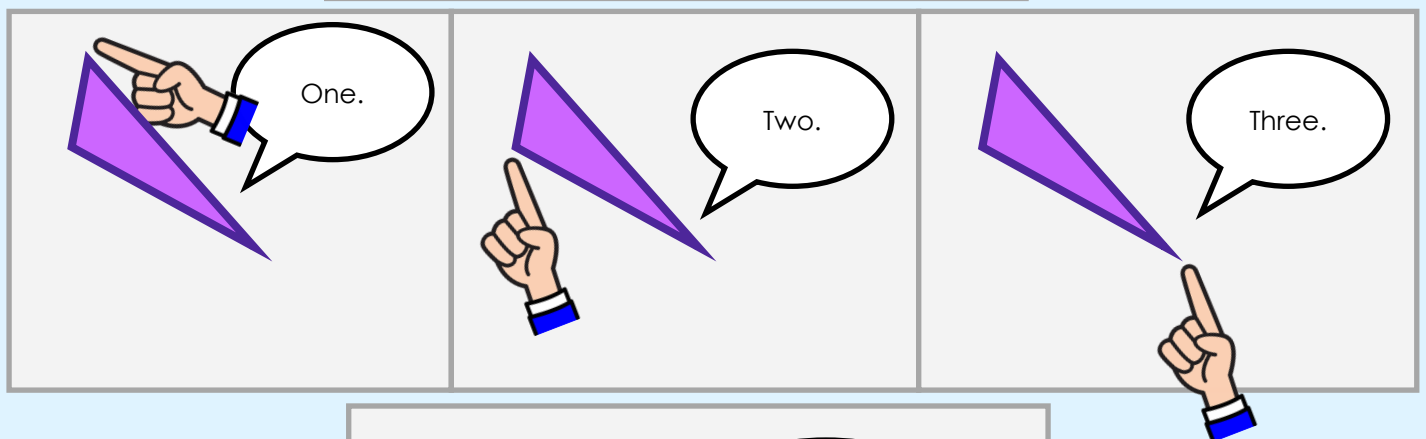
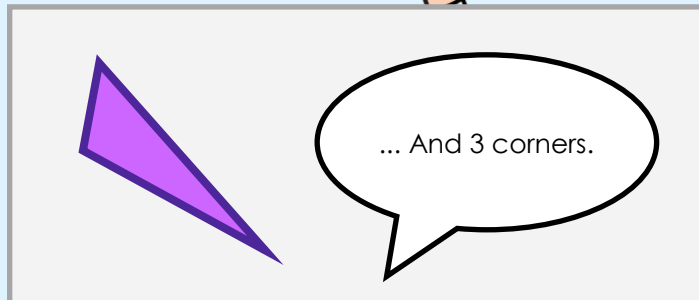
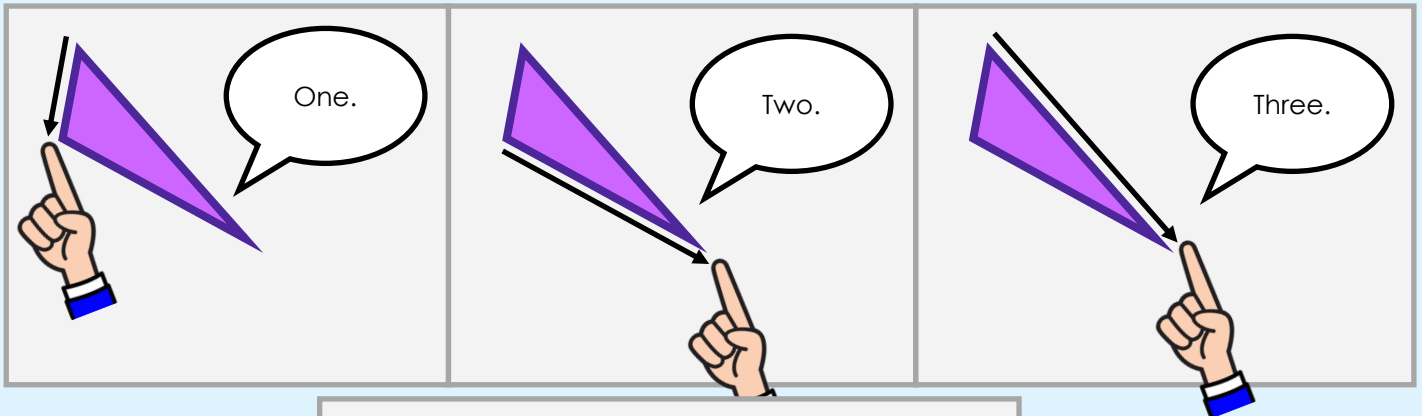
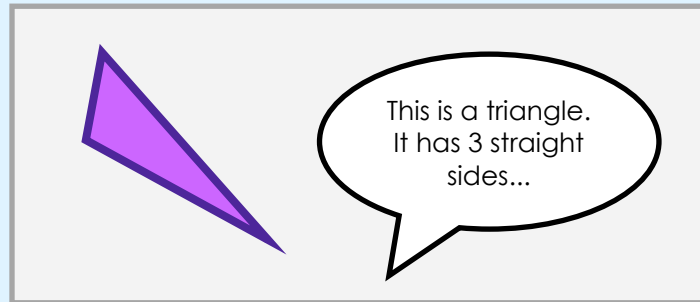
- Long(-er)
- Short(-er)
- Length
  - Equal (or same)
  - Different
- Round
- Flat

## How should I teach shapes?

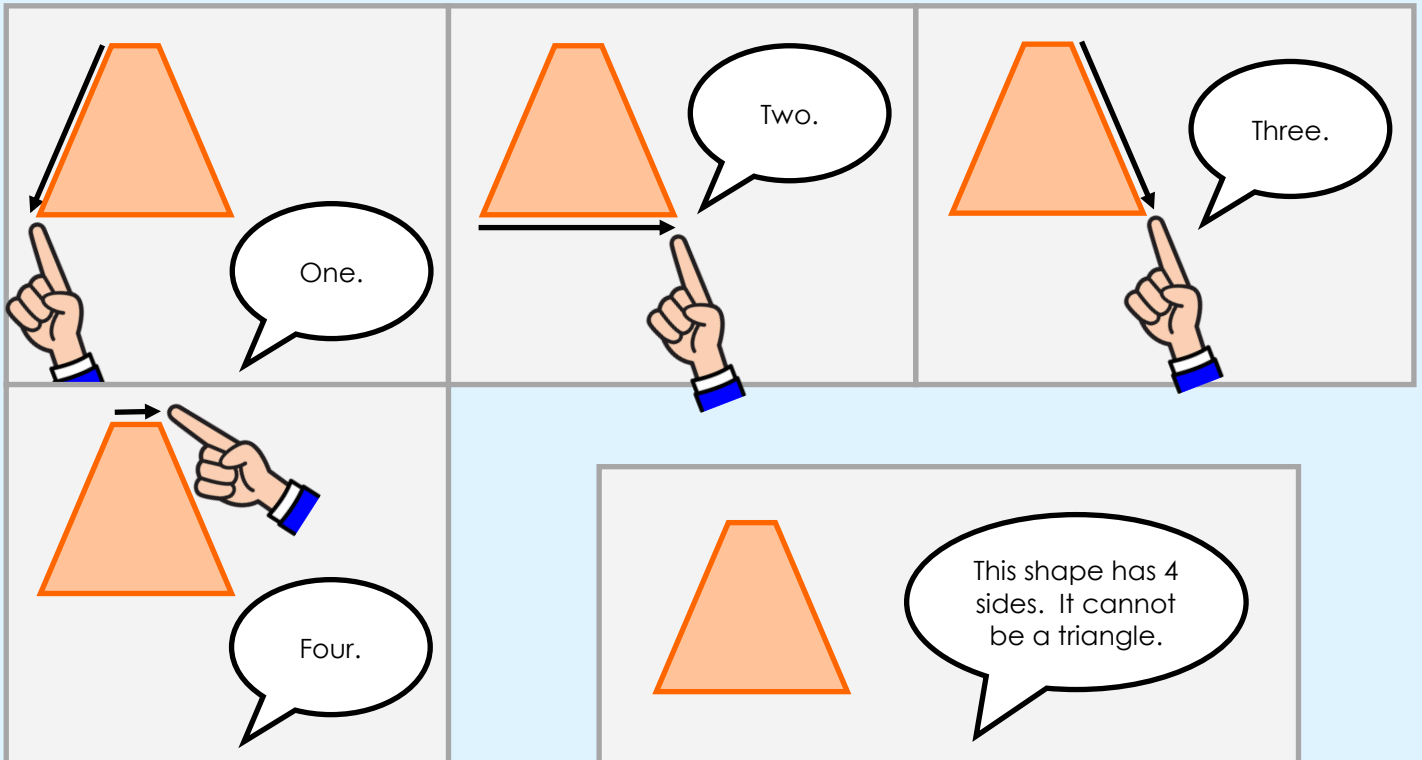
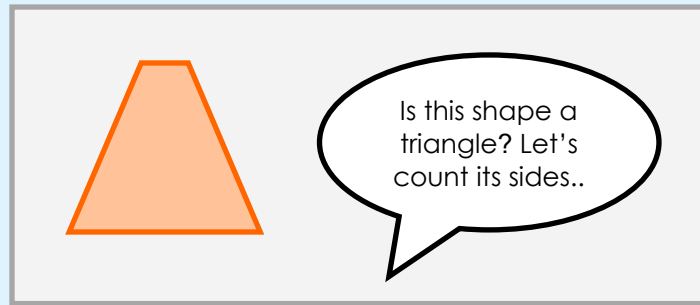
- When you first introduce a shape to a child, name the shape and then talk about the qualities that make it that shape.
- For example, with a triangle, talk about how it has 3 sides and 3 corners (or angles). You can also mention that all of the sides are straight.



- Show other types of triangles, and talk about how they have the same basic properties that make them triangles, too.



- Last, show other shapes and talk about why they are not triangles.



# Shape Find Game

## Activity Summary

Practice identifying shapes in this fun game! The goal is to figure out the name of a shape before it is completely visible.

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## Set Up and Game Play

### Materials

- Cardboard box
- Scissors
- Large Tupperware container or similar plastic container
- Rice

### Setup

- Cut out the following shapes from the cardboard (in different sizes):
  - Circles
  - Squares
  - Triangles
  - Rectangles
  - Rhombuses
- Pour the rice into the plastic container
- Bury one or more shapes in the rice

### Playing the Game

1. Lightly shake the plastic container until a shape begins to peek out of the rice, or slowly pull one shape out to reveal key features of the shape.
2. Ask your child to try to figure out what shape it is from what they can see.
3. If your child needs more clues, continue to reveal more of the shape.
4. Pull the shape from the rice to check their answer.

Example:

You: ***I see a shape starting to show. Can you figure out***

Child: ***I don't know.***

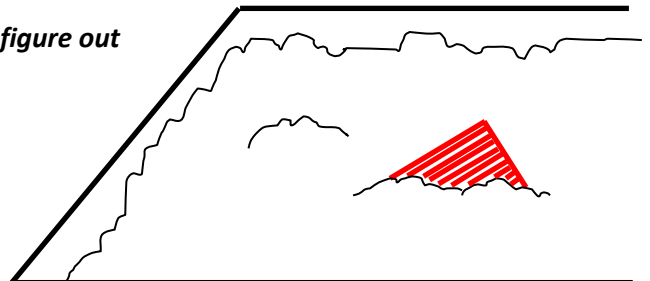
You: ***What can you see right now?***

Child: ***I can see a corner.***

(slowly pull the shape until more of it shows)

Child: ***I can see two more corners!***

You: ***Can you figure out what shape it is?***



Child: *I think it's a square!*  
You: *Let's pull it out and double-check.*  
Child: *It is a square!*



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## Tips

### Setup

- Just beginning to learn shapes? Use typical presentations of shapes.



- More experienced with shapes? Include other types of the triangles, rectangles, and rhombuses.



### Gameplay

- If your child isn't sure what a shape is, ask questions to focus their attention on the important attributes of the shape that are visible, and to try to figure out what attributes are not yet visible.
  - *How many sides can you see? Can you see all of the sides, or do you think some are buried in the rice?*
  - *If you can only see two sides, will the number of sides be more than two or less than two?*
  - *How many corners can you see? Can you see all of the corners?*
  - *Do you see straight sides or a curved side?*
- If your child is having a difficult time figuring out what shapes they see, you could put cut outs of each of the shapes on the table for your child to reference. Ask questions to help them analyze the shapes and find matches.
  - *You can see three sides, but not all of the sides are visible yet. Which shapes have more than three sides?*
  - *Look at the corner sticking out of the rice. Is it a skinny corner or a wide corner? Can you see any shapes that have a corner like that?*

### Adaptations

- To make the game more difficult, add more shapes to the rice, or challenge your child to figure out the shape when less of it is visible.



# What Shape Am I Thinking Of?

## Activity Summary

Practice identifying shapes in this fun game! The goal is to use clues to figure out the shape a player is thinking of.

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## Set Up and Game Play

### Materials

- Shape cards (see Setup for instructions)

### Setup

- Prepare the shape cards
  - Download cards in either color, or black and white. Print the cards on cardstock for durability. If you print the cards in black and white, use crayons or markers to color the shapes different colors; cut out the cards along the black outlines
  - Or make your own shape cards using index cards and crayons or markers
- Choose 5 or more shape cards

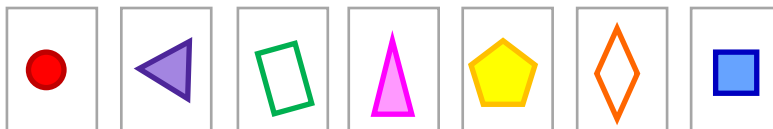
### Playing the Game

1. Place the cards face up on the table in a single row.



2. Pick a card in your mind. Give clues to your child to guess your card. Clues can focus on qualities such as the number of sides, whether the sides are straight or curved, or the lengths of the sides.

Example:



You: ***I'm thinking of a shape that has straight sides.***

Child: ***Is it the purple triangle?***

You: ***No. But the purple triangle does have straight sides.***

*The shape I'm thinking of has 4 sides.*

Child: *Is it the rectangle?*

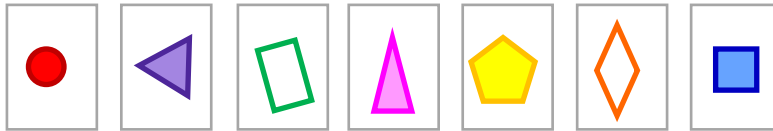
You: *No. But the rectangle does have 4 sides.*

*The shape I'm thinking of has 4 sides that are all the same length.*

Child: *Is it the rhombus?*

You: *Yes! It is the rhombus! Good job!*

Example:



You: *I'm thinking of a shape that has sides that are different lengths.*

Child: *Is it the rectangle?*

You: *No. But the rectangle does have sides that are different lengths.*

Child: *Is it the pink triangle?*

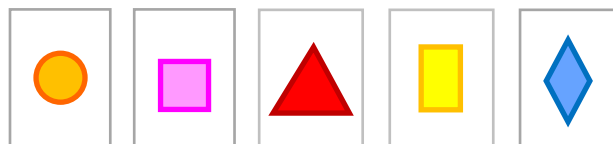
You: *Yes! It is the pink triangle! Well done!*

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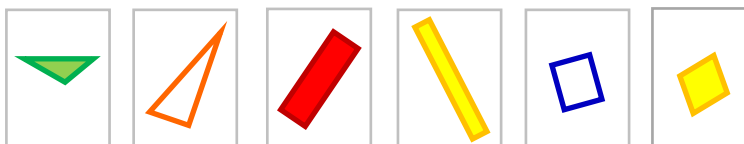
## Tips

### Setup

- If you are making your own cards, or coloring the black and white cards, have your child help you prepare the materials for the game. This is a fun way to learn shapes!
  - *Can you color a triangle? Which cards show triangles?*
  - *Which card would you like to color? What shape is on that card?*
- Just beginning to learn shapes? Use cards showing typical presentations of shapes.



- More experienced with shapes? Use cards showing other presentations of shapes, such as different types of the same shapes, or different orientations.



## Gameplay

- If your child picks a shape that doesn't match the clue(s) given, remind your child of the clue(s) that was mistaken.
  - ***Remember, the shape I'm thinking of has 3 sides. How many sides does that shape have?***
  - ***Remember, the shape I'm thinking of has sides with different lengths. Does that shape have sides with different lengths?***
- If your child gets confused about a shape, ask questions to focus their attention on the important attributes of the shape.
  - ***How many sides does that shape have?***
  - ***How many corners does that shape have?***
  - ***Are the sides straight or curved?***
  - ***Do you know what the name of that shape is?***
- You can always count the sides and corners with your child to help build confidence and understanding.

## Adaptations

- To make the game more difficult, you can include more shapes in the line-up. Include shapes that have a lot of similarities, so the clues have to get more specific, and there are more possible shape choices for each clue.

# Memory Matching Shape Card Game

## Activity Summary

Practice matching shapes in this fun game! The goal is to find shapes that look different but have the same name.

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## Set Up and Game Play

### Materials

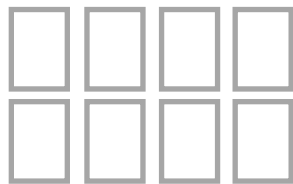
- Shape cards (see Setup for instructions) – These are the same cards that are used in the Matching Shape Card Game

### Setup

- Prepare the shape cards
  - Download cards in either color or black and white; print the cards on cardstock for durability. If you print the cards in black and white, use crayons or markers to color the shapes different colors; cut out the cards along the black outlines
  - Or make your own shape cards using index cards and crayons or markers
- Choose 3 or more matching pairs from the shape cards – a match is a pair of cards that shows the same shape, though they do not have to look the same

### Playing the Game

1. Shuffle the cards.
2. Place the cards face down on the table in one or two rows.



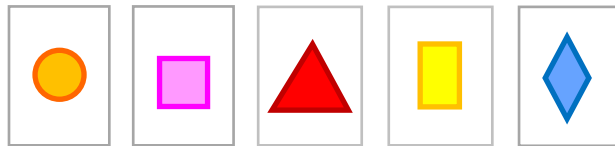
3. Have your child turn over a card. Ask: ***What shape is that?***
4. The child then turns over another card. Ask: ***What shape is that?***
5. If the two cards show the same shape, the child removes them and places them next to himself/herself. If they are not a match, the child turns them back over. Play goes to the next player.
6. Continue until all matches are made.

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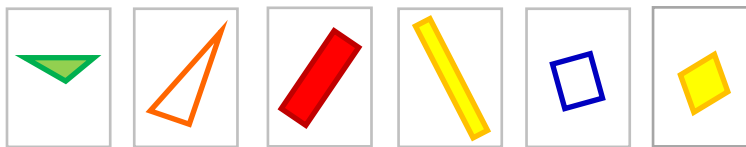
## Tips

### Setup

- If you are making your own cards, or coloring the black and white cards, have your child help you prepare the materials for the game. This is a fun way to learn shapes!
  - *Can you color a triangle? Which cards show triangles?*
  - *Which card would you like to color? What shape is on that card?*
- Just beginning to learn shapes? Use cards showing typical presentations of shapes.



- More experienced with shapes? Use cards showing other presentations of shapes, such as different types of the same shapes, or different orientations.



- You can use the Matching Shape Card Game to select the matches for this game and familiarize your child with the particular shapes you will use.

### Gameplay

- If your child makes a mistake with a shape, encourage your child. Say: *Can you try again?*
- If your child isn't sure what a shape is, ask questions to focus their attention on the important attributes of the shape. Name the shape if your child doesn't know the name.
  - *How many sides does the shape have?*
  - *How many corners does the shape have?*
  - *Are the sides straight or curved?*
  - *Do you know the name of a shape with three straight sides and three corners? It's called a triangle!*
- If your child gets confused about why a shape is a particular shape, ask similar questions to focus their attention on the important attributes of the shape.
  - *How many sides does the shape have?*
  - *How many corners does the shape have?*
  - *Are the sides straight or curved?*

- *I know it doesn't look the same as other triangles we have looked at, but because it has three straight sides and three corners, it is a triangle! It is just a different kind of triangle.*
- You can always count the sides and corners with your child to help build confidence and understanding.

## **Adaptations**

- To make the game more difficult, you can use more pairs of shape, different types of the same shapes, or shapes that are less familiar to your child.