

Overview: Students explore shapes through a variety of fun hands-on activities, including a shape-sorting game, a scavenger hunt, shape of the day explorations, and their own homemade shape books.

Grades: Preschool and K-2

Length of Lesson: Approximately 45 minutes

Related Video: "A Simple Re-Quest" episode

Learning Goals:

After completing this lesson, students will be able to:

- Recognize and name different shapes.
- Identify different shapes that they see in their classroom and beyond.
- Discuss characteristics of different shapes.
- Draw different shapes.
- Compare and contrast different shapes.

Related Goals from the Space RacersTM Curriculum:

Scientific Inquiry -

Exploration and Investigation: We obtain information and learn about the world through exploring objects and investigating how things work. Conducting scientific investigations, engaging in hands-on experiences, and asking openended questions can foster greater conceptual understanding of our world.

- Explore new things as a way to broaden one's understanding of the world.
- Use prior knowledge and experiences to develop specific questions that will lead to information, solutions, and answers.
- Design and carry out simple cooperative investigations that apply learning from past experiences and support new discoveries.
- Discuss the findings of investigations.

Observation: Looking carefully is one way to learn about things around us.

- Take note of a variety of properties and describe as accurately as possible (e.g., number, shape, size, length, color, texture, weight, motion, temperature, other physical characteristics, etc.).
- Scan/analyze an object or event from multiple positions in order to capture different perspectives.
- Make comparisons to identify similarities and/or differences.
- Inspect/investigate in detail in order to sort, group, classify, or sequence according to size or other characteristics.
- Communicate findings verbally or by using pictures, graphs, charts, and/or representations.

Materials:

- "Shape Cards" activity sheet
- A collection of toys, picture cards, and/or other objects from the classroom, each featuring one or more of the following shapes: square, triangle, circle, pentagon, diamond, hexagon, oval, octagon, rectangle
- crayons
- scissors
- paper
- 1-9 large sheets of easel paper (for Activity 3)
- a stapler, tape, string or ribbon
- sponges and paint (optional--for the Wrap-Up activity)

Prep:

- Print out two copies of the "Shape Cards" activity sheet—keep one intact and cut the other one up so that each card is separated from the others. (*For use in Activity 1, Activity 3 and Activity 4.*)
- Print out one copy of the "Shape Cards" activity sheet per student. (For use in the Wrap-Up activity.)
- Select an assortment of objects and/or picture cards that each feature one of the objects highlighted in the "Shape Cards" handout.

Lesson Activities:

Activity 1: Shape Jumble

- 1. Hold up the "Shape Cards" activity sheet.
- 2. Point to one of the shapes, say its name and discuss its properties. (For example, "This is a square. It has 4 sides. This is a triangle. It has three sides.") Ask students to identify the shapes they know.
- 3. After you have discussed each shape on the card, place a variety of objects and/or images in a big jumbled pile in front of the class.
- 4. Place each of the cut-out shape cards on a table or on the floor, spreading them out so that there is room between each. *Tip:* Include an "other" category for any objects that do not contain one of the 9 featured shapes.
- 5. Ask students to sort through the objects and place each one by its corresponding shape.
- 6. After the class has finished sorting the shapes, discuss each of the categories and the objects in each.
- 7. Give your students five minutes to go around the room and see how many other objects or things in the room (toys, objects, posters, floor tiles, etc.) they can find that feature one or more of shapes on the shape card).
- 8. Have your students discuss what shapes they found.
- 9. Lead a discussion about the shapes featured on the shape card. Ask your students to find two or more objects that have something in common and to discuss what they have in common, as well as what is different about them. Here are some possible things to discuss:
 - General Observations:
 - \circ $\;$ All of the shapes have corners except for the circle and oval.
 - The triangle has three sides; the square, rectangle and diamond have four; the pentagon has five; the hexagon has six; and the octagon has eight.

• Oval vs Circle-

- Similarities: Both are round
- *Differences:* All points on a circle are the same distance away from its center, while some points in an oval are closer to its center than others.
- Square vs Rectangle-
 - Similarities: Both have 4 sides and four corners
 - *Differences:* All the sides on a square are the same size. Only the opposite sides of a rectangle are equal in size.

Activity 2: A Simple Re-Quest

- 1. View the Space Racers[™] "A Simple Re-Quest" episode.
- 2. Ask your students to call out the shapes they see.
- 3. After the episode, ask students to discuss what shapes they saw in the episode.

Activity 3: Shape of the Day

- 1. Select one of the shapes on the "Shape Cards" activity sheet and place the shape card for that shape on a large piece of paper.
- 2. Have students draw their own versions of that shape or cut out that shape from an old newspaper, magazine, etc.
- 3. Have them paste their shapes to the large sheet to create a collage featuring different versions of the shape.
- 4. Search for things that have that shape in your classroom, school, outside, or anywhere else you and your class goes during the day. Encourage students to continue their search for that shape at home or anywhere else they go.
- 5. *Optional:* On another day, choose a different shape and try to find that shape throughout the day. Repeat this activity until you have searched for all the shapes.

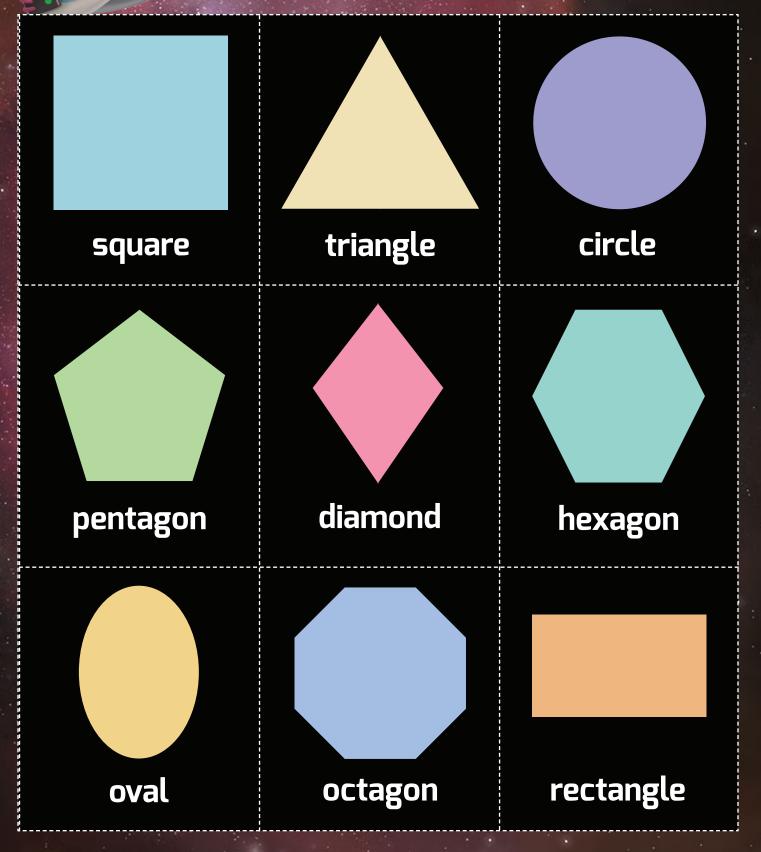
Activity 4: Shape Scavenger Hunt

- 1. Take the "Shape Cards" activity sheet with you and your students as you travel throughout the day.
- 2. When anyone sees a shape featured on the sheet, shout it out- "I see a circle." See if, as a class, you can find each shape on the sheet. See how many examples you can find of each shape.

Wrap-up: Shape Books

- 1. Give each student one "Shape Cards" activity sheet.
- 2. Have each student cut out each shape and glue each one onto a separate piece of paper. *Optional:* If students want to include shapes not featured on the Shape Cards handout, encourage them to create additional pages, highlighting a different shape on each page.
- 3. After students have placed one of the shapes on each page, have your students draw their own versions of each featured shape. If you have stickers or pictures of shapes, encourage them to add those too. Encourage students to practice writing the name of the shape on the page, as well.
- 4. *Optional:* Create your own collection of shape stamps, by doing the following:
 - a. Take some clean sponges and cut them into basic shapes.
 - b. Have students dip a sponge into paint and then press the sponge, paint side down into their shape book.
- 5. Encourage students to create a cover for their books, by taking a separate sheet of paper, adding a title (such as "My Book of Shapes"), and drawing pictures of shapes.
- 6. Guide students to place the cover on top of the pages and staple, tape, or tie all the pages together. (To tie the pages, punch a hole on the left side of each page, pull a string or ribbon through all the pages, and tie a knot.)
- 7. Encourage your students to explore their books, pointing at and saying the names of each of the shapes. Encourage them to share their books with their classmates.
- 8. Lead a discussion about today's lesson. Ask students to share some things they learned about shapes.

Shape Cards Print out the shape cards. Choose one shape and try to find things in your home or community that have that shape. Try doing the same thing with each of the other shapes.



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