



Preschool/TK/K
Early Elementary

Shape Viewfinder

The objective of this activity is for children to identify and visualize shapes in their environment. In this activity, each child will use a shape viewfinder to explore shapes around them.

Key Concepts

- Notice shapes in the environment.
- Think about shape attributes and recognize similarities and differences between shapes.
- Use shape names.

Materials and Setup

- If engaging in this activity as a small group, provide five to six shape viewfinders with different shapes.
- If engaging in this activity as a whole group, consider providing pairs of children with a shape viewfinder.



30 minutes



Small groups or as a whole group activity



Small group tables or on the floor

Activity Instructions

Before offering this activity, create shape viewfinders for children to use. A list of materials and instructions is available at the end of this handout under the heading “Making a Shape Viewfinder.”

1. Invite children to look through the shape in the shape viewfinder and scan the environment to find the same shape.
2. Ask children to take a photo, draw a picture, or record the name of the objects they find that match the shape in the shape viewfinder.





3. Encourage children to share their list with a partner and discuss the objects they found.

Questions to ask: What objects did you find that are the shape of a circle? What objects did your partner find that looked like a circle? How many objects on your list match your partner's list?

4. If there is time, encourage children to try using a shape viewfinder with another shape outlined in the plastic window.

Using M⁵ to Support Children's Shape Learning

This section offers ways to use the M⁵ Early Math Approach to support children's early math learning and development during this activity.

Mutual Learning

- Notice which shapes children identify easily. Offer support to help them identify other shapes. For example, you might say:
 - ◇ "Look, I found a square. It has four straight sides and four corners. Can you find another square?"
- Notice the languages, gestures, and vocabulary children use to name or describe shapes.
 - ◇ Encourage multilingual learners to name and describe shapes in their home languages, English, or a combination of languages.
 - ◇ Invite children to use visuals or gestures to describe a shape's attributes.



Meaningful Math Investigations

- Encourage children to engage in the trial-and-error process.
 - ◇ "Let's observe this object to see if it is a square. Does it have four straight sides? Let's count. Oh, no, it has five sides. Let's try again and find an object that is a square."
- Invite children to explain their reasoning. You might ask:
 - ◇ "How is this shape similar to the one on your shape viewfinder? Is it bigger or smaller?"
 - ◇ "How do you know this is a square?"



Materials and Learning Environment

- Encourage children to use the shape viewfinder in a variety of spaces, inside and outside.
 - ◇ Take the shape viewfinder on a neighborhood walk and encourage children to notice the shapes in their community.

Math Vocabulary and Discourse

- Use shape attribute language to guide children's shape searches. You might say:
 - ◇ "A circle is round."
 - ◇ "A square has four sides that are all the same size."
- Ask open-ended questions to invite children to use shape names and shape attribute language.
 - ◇ "Tell me about the shape you found. How do you know it is a triangle?"

Multiple Representations

- Offer other activities to support children's understanding of shapes and their attributes.
 - ◇ Invite children to sort pictures of shapes or objects based on their shape category.
 - ◇ Invite children to make shapes out of modeling clay and to notice the number of sides and corners each shape has.

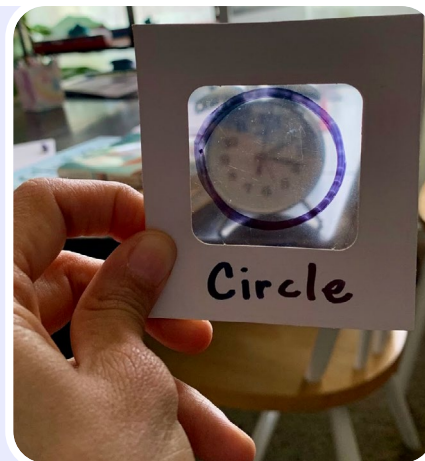




Making a Shape Viewfinder

Materials

- Clear plastic bag (for example, a bread bag)
- Light cardboard (for example, a cereal box or pasta box)
- Scissors
- Permanent marker
- Ruler



Instructions

The following instructions describe how to make a shape viewfinder. Consider your group's fine motor development. You might create shape viewfinders for children in preschool and transitional kindergarten. Alternatively, you might make parts of the viewfinder for children to assemble or provide adult guidance for children to make viewfinders.

Note: We recommend that children use shape viewfinders for circles first. Viewfinders for other shapes may be introduced in any order.

1. Cut a cardboard rectangle that is approximately 4 x 6 inches.
2. Draw a rectangle on the cardboard rectangle. Leave a border of at least half an inch from the edges.
3. From inside the borders you just created, cut out the rectangle you drew. This cutout will produce a rectangular frame (see the picture).
4. Cover the rectangular frame with a piece of clear plastic. Use tape to secure all four corners.
5. Use a permanent marker to trace a shape on the plastic part of the viewfinder. For example, you might use a small cup to create a circle.