Shapes in Agriculture

Lesson Snapshot

 Related “My American Farm” Game
“In My Barn” available at www.myamericanfarm.org

Grade Levels
• Pre-K, Kindergarten

Content Areas
• English Language Arts
• Math
• Fine Arts

Standards (Grade K)
Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.
Core Content Standards, English Language Arts

Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).
Core Content Standards, Math

Objectives
By the end of this activity, the students will be able to:
• Define agriculture.
• Use basic geometric shapes to represent agriculture.

Materials
• Whiteboard and markers
• Food, Clothing and Shelter icons (Attached)
• Construction paper shapes (Template Attached)
• Glue or paste
• Large paper (1 per student)

Preparation
• Visit myamericanfarm.org to preview the game “In My Barn”.
• Review the lesson. There are a couple of places where you will see an asterisk (*). These are areas where you can choose to modify the lesson. To determine if you need to make these modifications, ask:
  » How much time would you like to allocate for the activity?
  » How would you like students to demonstrate what they’ve learned?
• Copy one shapes template for each student. Cut out shapes prior to lesson.
• Cut out “Food, Clothing and Shelter” icons.

Introduction
Set Context for the Activity
Step 1: Introduce the term “Agriculture”

• Ask students the following questions, capturing responses in separate columns on the white board.
  » What do you like to eat?
  » What is your favorite item of clothing?
  » What is one adjective (describing word) you would use to tell about your house or a friend’s house?
• Share with students that farmers and ranchers work hard every day to make our food, fiber for our clothing, and prepare products for shelter like wood.
• Using tape or magnets, fix the “Food, Clothing, Shelter” icons found at the end of this lesson to the top of each generated list.
• Write the word “agriculture” on the whiteboard. Read the word out loud and ask students to repeat. Ask students to raise their hand if they have heard the word before.
• Share the common definition of agriculture:
  Agriculture is a term that encompasses all of the industries and processes involved in the production and delivery of food, fiber and fuel that humans need to survive and thrive.
BODY
MAIN CONTENT

Step 2: Shapes in Agriculture

- Set Context: Inform students that you will explore common shapes.

- Introduce the following shapes by drawing them on the board one at a time. Identify defining characteristics (number of sides, straight/curved lines).
  - circle
  - square
  - rectangle
  - triangle

- Review shapes by holding up paper shapes cut out prior to the lesson and asking students to quickly identify.

Step 3: Creating a Farm Scene

- Share with students that you will work together to create a farm scene using shapes.

- With the help of adult assistants, hand out one square and one triangle to each student. Demonstrate how to make a house with these shapes. Assist students as they make a house on their paper by gluing a square and triangle.

- Demonstrate how to make a fruit tree using one large circle, several small circles, and a rectangle. Assist students as they make a tree on their paper.

- Demonstrate how to make a tractor using a square, rectangle, and two circles. Assist students as they make a tractor on their paper.

- Reinforce counting and geometric identification skills by asking students to count the number of triangles, circles, squares and/or rectangles on their sheet.

*Additional farm-shape creations are suggested at the end of this lesson. Feel free to modify in order to meet the needs of your students and represent agriculture in your area.

- With adult assistance, ask students to dictate a sentence about agriculture. Capture this sentence below the farm scene.

Step 4: Play Game

- At this point you may elect to have students play “In My Barn”, available at www.myamericanfarm.org. Students can work individually or in pairs.

- Inform students that they will be jumping into a fun game, in which they will learn more about agriculture as they use important counting skills.

*You may choose to have students play this game before you arrive, after you have left, or at home with adult permission.

*The game is set up to allow students to listen to audio prompts throughout the experience. You may wish to secure headphones for students, or play the game as a class while displaying on a large screen.

*Math tasks increase in challenge throughout the game. Preview and discuss the most appropriate level(s) to play with the students.

WRAP UP
REVIEW, ASSESS, CHALLENGE

Step 5: What have you learned?

- Remove the food, clothing and shelter icons from the original lists created on the board. Review lists one at a time and ask students to correctly label by sending a volunteer to fix the correct label to the list.

- Refer back to the original definition of agriculture shared at the start of the lesson.

- Challenge students to look for things throughout the day provided by farmers and ranchers.

*As an enrichment activity, challenge students to keep a list of things made or prepared by farmers. Students can have an adult help write items, take pictures of items, or bring in samples.
Cut out one set prior to lesson.
Food, Clothing, and Shelter Icons
Cut out one set prior to lesson.
SHAPE STENCILS
Make 1 copy for each student on colored paper.
Cut out shapes prior to lesson.
*You may wish to cut out shapes using a die-cut or alternate stencils
Suggested Farm Shapes

- House
-筒形
- Triangle
- Circle
- Square
- Tractor