### Preschool

# Nature Shapes Activity

#### **Overview**

#### **Activity Synopsis**

Students will learn about shapes by building plants and animals out of basic shapes.

#### **Time Frame**

30 minutes

#### Objectives

The learner will be able to:

- Identify 5 basic shapes.
- Use fine motor skills to match shapes.
- Understand that basic shapes can be compared to nature (plants and animals).

#### **Standards**

South Carolina Early Learning Standards

APL-1, APL-2, APL-3, APL-4, APL-5, APL-6, APL-8 ESD-5 HPD-5 LDC-1, LDC-2, LDC-3, LDC-4, LDC-5, LDC-6, LDC-7, LDC-11 MTE-1, MTE-2, MTE-3, MTE-4, MTE-5 CD-1, CD-2, CD-4, CD-5, CD-10, CD-11

#### **Background**

During this activity, students will learn five common shapes and arrange them to look like familiar plants and animals. The shapes that are focused on in this activity include:

- Square
- Triangle
- Circle
- Diamond
- Rectangle

The focus animals and plants include:

- Fish
- Tree
- Bird
- Fox
- Butterfly
- Mouse
- Turtle

Here is some background information on the plants and animals.

#### Fish

Fish live under the water and breathe using gills. Their basic body shape consists of the body and fins. The fins can be different shapes



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depending on the type of fish and where it lives. A fish's tail or caudal fin is located at the back of the body and helps to propel the fish forward. Fish with a **triangular** shaped tail, are typically slow moving but great at turning. Some fish with more **square** body shapes, are good at weaving in and out corals and plants to avoid being seen, rather than swimming in the open ocean.

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#### Tree

Trees are plants with a strong trunk, deep roots, branches and many leaves. Roots absorb water and nutrients to help them grow. Leaves absorb energy from the sun with branches helping the leaves reach for the sun's rays. Trees trunks have a strong **rectangular** shape to support the weight of its branches on the top, while growing nice and tall to extend over competing plants for sunlight.

#### Bird

Birds have **triangular** shaped beaks good for cracking nuts, drilling holes in trees or catching and eating prey. The beak shape is dependent on the animal's food source and can tell us a lot about where it lives and what it eats.

#### Butterfly

Butterflies are insects that have a set of symmetrical wings to help the animal fly as well as camouflage. They have a long, **rectangular** body that the wings attach to. Butterflies **diamond** wings come in many different colors and sizes. Typically, they will have a top wing and a bottom wing that are connect at the thorax.

#### Fox

Foxes are a type of mammal that usually live in forested areas. They use their tall, **triangular** ears to listen out for both predators and prey in the area. They are omnivores hunting and foraging for anything they are able to catch, like birds and small mammals or berries from bushes.

#### Mouse

Mice are small grey or brown mammals with large, **circular** ears. They can be found in a variety of different habitats as they are excellent at camouflaging. Mice will use their strong senses of smell, vision, hearing and sight to feed on small insects, seeds and berries they find.

#### Sea Turtle

There are 7 different species of sea turtles found all over the world. They spend all of their time swimming in the water and only come on shore to nest. They have a hard shell (**square** in our example) that protects their bodies and 4 flippers (**diamonds**) to help them swim. Sea turtles eat sea grass, jelly fish, crabs and fish.

#### Procedure

#### Materials

- <u>Nature Shape Templates</u>
- Scissors (teacher only)
- Cardstock (optional)
- Crayons and paper (optional)

#### Procedure

Prep: Print off 2 sets of Nature Shape Templates for the class (average class size of 16). If you can, laminate all the shapes once they are cut out so they can be used over and over again. If not, printing them on cardstock so they are easier to maneuver for small hands would be ideal. Cut the 8 animal/plant cards along the dotted lines, separating each pattern to make a total of 16.

**Grow Up Great** 

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1. Start a discussion about plants, animals and nature. Ask the students if they have a favorite plant or animal. Have them look around the room or outside for different animals and plants.

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2. Share with the students how nature is made up of a lot of basic shapes. Go over some basic shapes and what they look like (square, circle, triangle, rectangle, diamond). Use your hands to draw the shape in the air, with your finger on the carpet or on the board with a marker. Encourage students to do it with you.

3. Look around the room and see if you can find any of these shapes. Bottom of a cup, pieces of paper, leaves on a plant, etc.

4. Show students one of the Nature Shape Template animal cards to see if they recognize the animal the shapes have created. What shapes make up that animal? Show how the basic structure of these plants and animals are made from basic shapes.

5. Share with the students that they are going to use shapes to create plants and animals. Introduce them to the different plants and animals on the cards and share some information about them.

6. Give each student a Nature Shape Template card and a few of each shape cut-outs.

7. Students can then use the cut-out shapes to create the nature item they have on their card. They can either match the shapes to the ones on the template by placing it on top or try to recreate it next to the image of the nature item. As they are working on this, ask them what shapes they used and what part of the plant or animal's body it represents.

8. Have students switch Nature Shape Template cards with one another and repeat step 7.

9. Take some time to allow students to use the shapes to be creative and make their own animal or plant creations. Can they draw what they have created to bring it to life?

#### **Extensions**

#### **Science Extension**

Have students tell you the colors of the shapes as they build their animals and plants (Square – blue, Circle – orange, Rectangle – yellow, Triangle – red, Diamond – green).

#### **Math Extension**

As students build their shape animals and plants. Have them count how many shapes they used.

#### **Music Extension**

Sing the Shape Song to the tune of "Frere Jacques" from the childhood 101 website. <u>https://childhood101.com/shapes-rhymes/</u>

This is a square, this is a square, How can you tell? How can you tell? It has four sides, All the same size. It's a Square, It's a Square.

This is a circle, this is a circle. How can you tell? How can you tell? It goes round and round, No end can be found. It's a circle, It's a circle.

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This is a triangle, this is a triangle. How can you tell? How can you tell? It only has three sides, That join to make three points. It's a Triangle, It's a triangle.

This is a Rectangle, This is a rectangle. How can you tell? How can you tell? It has two short sides And it has two long sides. It's a rectangle, It's a rectangle.

#### **Math Extension**

Count the sides of each shape with the students and see if they can identify other things in the classroom that have the same number:

- Circle has zero sides humans have zero tails
- Triangle has 3 sides something you might have 3 of in your classroom
- Squares, diamonds and rectangles have 4 sides most animals have 4 legs

#### **Science Extension**

Have students look around the room and look for shapes in the classroom. Go outside and find objects in nature with familiar shapes.

#### **Math Extension**

Ask students to look around their space and count how many of each shape they can find. How many circles are in the classroom? Squares?

#### **STEM Extension**

Have students look around the classroom and find objects with similar shapes and group them together. If possible, bring the students outside to look for shapes in nature. Have them identify the different shapes that make up the things found. Students can then group them together in similar shape groups

#### **STEAM Extension**

Give them finger paints or crayons and some paper. Let them recreate different shapes. Encourage them to use those shapes to make a plant or an animal they're familiar with.

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