

# Animal Adaptations



## Lesson Summary

- Explore adaptations of animals on land and in the ocean.
- Explore movement qualities while dancing.

## Lesson Plan and Procedure

**Note:** Hang the posters of animals on the wall so the backs of the posters are showing, or prepare the images on a digital layout to use with a projector or smart board.

Make a masking-tape square on the floor in the middle of the space.

### Experience/Identify

Teacher: *Animals live very differently than humans do. Some live in the water, some live in the desert, and some live high in the tops of trees in the rainforest. Animals have adaptations that help them survive in their environments. Look around the room. There are seven posters hanging on the wall (posters are hung backwards so students cannot see the pictures). On the other side of each poster is a picture of an animal that has an adaptation we will learn about using dance. Who would like to pick the first poster?*

### Explore/Investigate

The activities do not need to be in any specified order. When the students pick a poster, have them show the picture to the class, hang it at the front of the room, and do the associated activity.

#### Activity 1: Giraffe

Teacher: *Giraffes have very long necks. Why do you think their necks are so long? In the African Sahara, where giraffes live, the vegetation must feed many animals, so giraffes have long necks to reach the highest food on the trees, where few animals can reach. A long neck is just one of the giraffe's adaptations. When the music starts, begin reaching with your arms, reaching for the very tops of the trees!*

Turn on music. After students reach with their arms, encourage them to try reaching with different parts of their bodies (e.g., toes, backs, necks, elbows, knees).

#### Activity 2: Coral Snake and Scarlet Kingsnake

## Lesson Key Facts

- **Grade(s):** 2
- **Subject(s):** Dance, Science
- **Duration of lesson:** Several sessions, 10-15-minute each or one 50-minute session
- **Author(s):** Erika Cravath and Sara Mann



Teacher: *These are two different species of snakes, but they look very similar. One of these snakes is very poisonous, and one is not poisonous at all. Does anyone know which is which?*

Have students share their answers.

*The coral snake is poisonous and the kingsnake is not. Many scientists believe that the scarlet kingsnake adapted to look like the coral snake so that other animals would think it was poisonous, too. This would help the kingsnake from being eaten by predators. The scientific word for this is Batesian mimicry, but that simply means “copycat.” Can you tell the difference in the pattern on the snakes?*

Help the students identify the difference between the two.

Teacher: *There is a rhyme to help you remember the difference: “Red on yellow, kill a fellow; red on black, won’t kill Jack.”*

Partner up the students. Identify who will be first and second. Partner one will be the leader and partner two will be the “copycat.” Partner two will stand directly behind partner one.

Teacher: *First partner, when the music begins, you will start to move. Second partner, stand directly behind your partner and copycat whatever they do, as if you were their shadow.*

Turn on music and encourage the students to work with each other; give a sign to switch roles.



### Activity 3: Stingray

Teacher: *Stingrays have several adaptations. They swim very quickly, sting their prey with their tails, and can blend into the ocean floor. How do they blend into the ocean floor? They are flat and are colored like the sand.*

Instruct the students to move as if they are gliding under the water. They might suspend or rise and fall as if they were under the ocean. They begin moving when the music starts, but as soon as the music stops, instruct them to freeze in a low shape and not move.

Teacher: *Once you are frozen, when I beat my drum you will use one body part to quickly move and “sting.” The rest of your body must remain motionless. Just one body part “stings”—try your foot, your finger, your elbow, or your shoulder.*

Do the activity several times. Challenge the students to use contrasting movements (e.g., go from smooth, gliding motions to stillness and then to quick, percussive movements).

### Activity 4: Clown Fish

Preparation needed: A taped square on the floor.

Teacher: *Clown fish have a special adaptation to where they live. Clown fish swim among the tentacles of a sea anemone without getting hurt. Other fish are poisoned by the sea anemone. This helps to keep clown fish safe from predators.*

Teacher: *This square on the floor is our sea anemone. (Chose one student to be the “big fish.”) All of you are clown fish, and this student is a much bigger fish. Only clown fish can go inside the square. When the music starts, begin swimming in the ocean by skipping on the outside of the square. If the music stops, skip to the inside of the square, where you are safe from the big fish. If the big fish tags you before you reach the square, then you have become a big fish, too, and must try to catch the other clown fish.*

Do the activity several times, changing the type of traveling step that they do each time (e.g., galloping, jumping, hopping, crawling, sliding, walking, crab walking, rolling) until all the students are caught.

### Activity 5: Seahorse

Preparation needed: A card with a curved shape on it, a card with an angular shape on it, and a square taped on the floor.

Teacher: *Seahorses can camouflage. What does camouflage mean? (Wait for students’ answers.)*

*Camouflage means to blend in to the environment so that it is hard to be seen. A seahorse can blend in to its environment.*

Using the taped square on the floor, pick four students to be the coral reef. Pick four more students to be seahorses. Secretly show the coral-reef students either the curved-shape card or the angular-shape card while the seahorses close their eyes. The coral-reef students will make the corresponding shape and hold it. At a drum beat from the teacher, the seahorses will open their eyes before the teacher counts to five, and they must run to their coral reef and then make the same kind of shape before the time is out. If they aren’t in a shape before the teacher says, “Five!” then they are “out.” This will challenge the coral reef to be clear in the shaping of their bodies and the seahorses to figure out quickly what kind of shape to make.



### Activity 6: Koala

Teacher: *Koalas have specially adapted hands that grip trees so they can climb to the very top. Humans have special hands, too. Why are our hands special? (Dexterity, opposable thumbs.) What do they help us to do?*

Create a list of what we can do with our hands. Ask the students to create a shape demonstrating the various activities that we use thumbs for. They have to change what shape they are making each time you beat your drum. Then challenge the students to quickly come up with their own shape.

### Activity 7: Owl

Teacher: *Owls have several adaptations because they are nocturnal. What does nocturnal mean?* (It means that they are active at night.) *At night, owls can see very well; their eyes are larger than many animals' eyes are. They also have keen hearing. They listen to their prey. When the music starts, spread your arms wide; swoop like an owl flying at night . . . and listen closely to hear my drum. When I beat my drum, swoop down and freeze in a low shape.*



## Create/Perform

Instruct students to pick their two favorite animals from today's lesson. What movements did we do today in class to show how these animals adapt to their environments? Create an animal movement sandwich, using the ABA choreographic pattern. Students will create an animal #1 movement, then create an animal #2 movement, then repeat the animal #1 movement (e.g., reach like a giraffe, move quickly and freeze like a stingray, then reach like a giraffe again).

## Connect/Analyze

Help students make connections between adaptations and an animal's ability to survive in their environment.

Teacher: *Why does each of these animals have its specific adaptation? How does environment determine adaptation?*

### Learning Objectives

- Identify adaptations of animals to be able to survive.
- Express an idea with a beginning, middle, and end.

### Utah State Board of Education Standards

This lesson can be used to meet [standards](#) in many grades and subject areas. We will highlight one grade's standards to give an example of application.

## Grade 2 Science with Engineering Education (SEEd)

- **Strand 2.2: LIVING THINGS AND THEIR HABITATS**

Living things (plants and animals, including humans) need water, air, and resources from the land to survive and live in habitats that provide these necessities. The physical characteristics of plants and animals reflect the habitat in which they live. Animals also have modified behaviors that help them survive, grow, and meet their needs. Humans sometimes mimic plant and animal adaptations to survive in their environment.

## Grade 2 Dance

- **Standard 2.D.CR.3:** Express an idea, feeling, or image while improvising a dance that has a beginning, middle, and end.
- **Standard 2.D.P.6:** Demonstrate a variety of movement qualities while dancing.

### Equipment and Materials Needed

- Music tracks:
  - Giraffe: "Skin" by Andrew Bird
  - Coral snake/ scarlet kingsnake: "Sueno Topicale" by Mickey Hart
  - Stingray: "Amphibious" by Eric Chappell
  - Clownfish: "Fiesta!" by Eric Chappell
  - Owl: "Drive Away" by Thomas Newman

- Hand drum
- Animal images hanging on the wall, backwards at first: [PDF](#)
  - Giraffe
  - Coral snake and scarlet kingsnake
  - Stingray
  - Clownfish
  - Seahorse
  - Koala
  - Owl
- Masking-tape square in the middle of the floor
- Two cards, one with a curved shape on it and one with an angular shape on it: [PDF](#)

## Additional Resources

- Teaching about adaptations: <http://thesciencepenguin.com/2014/06/time-to-teach-animal-adaptations.html>
- Art resources: <http://education.byu.edu/arts/resources/dance>

## Image References

Images 1–6: James Huston

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<https://education.byu.edu/arts/lessons/Animal-Adaptations>