



## **ANIMAL ADAPTATIONS UNIT**

### **LESSON PLAN 3<sup>rd</sup>-5<sup>th</sup> grade**

#### Topics

Introduction to Adaptations  
Camouflage  
Animal Locomotion  
Animal Senses  
Food Chain

#### Objectives

Students will be able to:

- Explain what an adaptation is and the categories of adaptations
- Identify the types of adaptations that animals use for protection, locomotion, and finding food.
- Describe differences in adaptations between aquatic and terrestrial animals
- Create a food chain and identify the key elements.
- Explain and provide examples of how an animal's habitat influences its adaptations.

#### Instructional Materials

Topic Video  
Vocabulary Flash Cards

#### Assessment Materials

Video Reflection Worksheet  
Video Quiz  
Animal Adaptations Worksheet (pick an animal and describe its adaptations)  
Camouflage Worksheet (explain types of camouflage and give examples)  
Animal Senses Worksheet (how do different body parts help with senses)  
Animal Movement Worksheet (comparing animals that walk and swim)  
Food Chain Worksheet (complete a food chain)

#### Related Materials

Links to videos and reading material that provides additional information on topics.

#### *NOAA Resources*

The National Oceanic and Atmospheric Administration (NOAA) is a partner of SoundWaters. These are additional resources you may use in addition to the other materials included above.

#### *Food Chain game*

<https://coast.noaa.gov/psc/sea/content/aquatic-food-chains.html>



*Horseshoe crabs*

<https://www.fisheries.noaa.gov/feature-story/horseshoe-crabs-managing-resource-birds-bait-and-blood>

<https://oceantoday.noaa.gov/every-full-moon/full-moon-horseshoecrab.html>

*Invertebrate facts*

<https://www.fisheries.noaa.gov/national/outreach-and-education/fun-facts-about-intriguing-invertebrates>

*plankton in the arctic*

[https://oceantoday.noaa.gov/animalsoftheice\\_krill/](https://oceantoday.noaa.gov/animalsoftheice_krill/)

*Invent an animal*

[https://oceanexplorer.noaa.gov/edu/lessonplans/gal\\_gr5\\_6\\_l3.pdf](https://oceanexplorer.noaa.gov/edu/lessonplans/gal_gr5_6_l3.pdf)

NGSS Standards

Interdependent Relationships in Ecosystems: 3-LS2-1, 3-LS4-3

Inheritance and Variation of Traits: 3-LS3-2, 3-LS4-2, 3-LS4-4

Structure, Function, and Information Processing: 4-LS1-1, 4-LS1-2

Matter and Energy in Organisms and Ecosystems: 5-PS3-1, 5-LS1-1, 5-LS2-1

## Animal Adaptations Quiz Answers

Pictured below are 2 different colored moths, the one below has adapted to camouflage with tree bark. What kind of adaptation is it?

- A. Physical
- B. Behavioral

The polar bear has adapted to have small ears to maintain their body heat. What kind of adaptation is this?

- A. Physical
- B. Behavioral

The chocolate-fingered mud crab is one of Long Island Sound's native species, when attacked by a predator they play dead. What kind of adaptation is this?

- A. Physical
- B. Behavioral

Our thumbs have allowed us to do unique things other animals cannot like opening doors, writing, and using utensils. What kind of adaptation is this?

- A. Physical
- B. Behavioral

Whales migrate to warmer climates when temperatures drop in colder ones. What kind of adaptation is this?

- A. Physical
- B. Behavioral

The mantis shrimp has extremely complex eyes that can see far beyond what the human eye can, what kind of adaptation is this?

- A. Physical
- B. Behavioral

## Camouflage Quiz Answers

Choose the animal that is using camouflage to hide from us in this photo.



D. Flounder



A. Weedy Scorpionfish



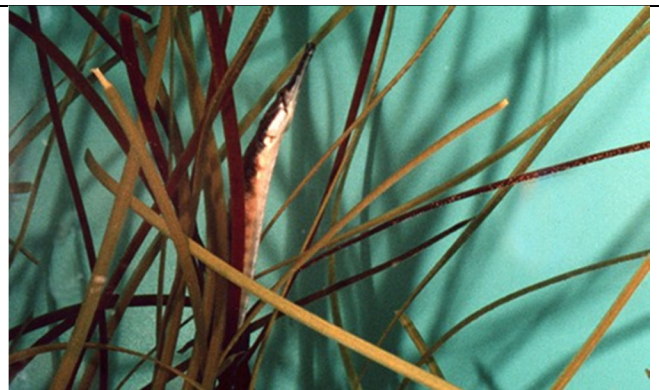
F. Spider Crab



E. Octopus



B. Oyster Toadfish



C. Pipefish

## Aquatic Movement Quiz

Why is movement of animals an important adaptation?

- A. To get exercise
- B. To find food, mates, and escape predators
- C. To escape predators only
- D. It is not an adaptation

What is a univalve?

- A. An animal with no shell
- B. A one shelled animal ex. Snail
- C. A two shelled animal ex. Mussel
- D. None of the above

What animal moves sideways?

- A. Crabs
- B. Turtles
- C. Flounder
- D. Mussel

True or False: Mussels have the ability to move around.

- A. True
- B. False

What kind of feet does a diamondback Terrapin have?

- A. Flippers
- B. Large Feet
- C. Webbed Feet
- D. Talons

## Animal Senses Quiz

Which of these is not a sense?

- A. Taste
- B. Hearing
- C. Mating
- D. Site

A seastar's eyespots help it to see \_\_\_\_\_

- A. Pictures
- B. Colors
- C. Light
- D. Shapes

Which sense does the seastar's tube help it with most?

- A. Sight
- B. Hearing
- C. Touch
- D. Smell

How many set(s) of antennae do lobsters have?

- A. None
- B. One
- C. Two
- D. Three

Why is vision not important for lobsters?

- A. They do not have eyes
- B. They live where it is dark
- C. Their sense of hearing is very strong
- D. They make their own food

What is the main idea of this paragraph? "Animals use their senses to survive in nature. Animal's abilities to see, hear, smell, taste, and touch help them find food. Animals also use their senses to avoid, or stay away from, their enemies."

- A. Animals use their senses to avoid danger.
- B. Animals can see, hear, taste, and touch.
- C. Animals use their senses to find food.
- D. Animals use their sense to survive in the natural world

True or False. All animals in the water have the same well-defined senses like humans

- A. True
- B. False

Where is the lateral line on a fish?

- A. On its stomach or underside of the body
- B. On it's head between its eyes
- C. On the side from head to tail
- D. On its dorsal fin

## Food Chain Quiz Answers

What is a food chain?

- A. All the living and non-living things in an environment
- B. A way to show the flow of energy in an environment
- C. The specific body parts an animal has for getting its food
- D. Where an animal lives

What is the bottom level of a food chain called?

- A. Producer
- B. Consumer
- C. Scavenger

How do phytoplankton get their food?

- A. Hunt live animals
- B. Make their own food using the sun
- C. Eat leftover or dead animals

What body part does a mussel use to get food from the water?

- A. Chelicerae
- B. Teeth
- C. Siphon
- D. Exoskeleton

An organism that gets energy by eating leftover or dead animals is called a . . .

- A. Producer
- B. Herbivore
- C. Scavenger
- D. Filter feeder

Which way does energy flow in a food chain triangle?

- A. From the top down to the bottom
- B. From the bottom up to the top
- C. From the middle in all directions