

NEW BEDFORD WHALING MUSEUM

# WHALES GIANTS OF THE OCEAN

## Facilitator's Guide - Lesson 5 Create a Critter

Lesson time: 45 - 60 minutes



All animals, no matter what size or where they live, are set up for survival. In this lesson, students will learn that living things have certain structures that help them survive, grow, live, and reproduce in their environment. Students will then create an animal specially adapted to live in its habitat.

## WELCOME!

This facilitator's guide will assist you as you lead **Whales: Giants of the Ocean** lesson – Create a Critter. It includes content that can be used to present the material to students. The guide can be used with the "Create a Critter" [video](#) or on its own. There is also a YouTube video link provided. All resources listed can also be found on the New Bedford Whaling Museum education website at [www.educators.whalingmuseum.org/](http://www.educators.whalingmuseum.org/)

## GUIDING QUESTION(S)

What special structures help animals adapt to live in a certain environment?

## BY THE END OF THIS LESSON, STUDENTS WILL BE ABLE TO:

Make a connection between structure, function, and adaptation of organisms.



### KEY TERMS

Structure    Function    Adaptation    Survival



### BACKGROUND INFORMATION

Whales, dolphins, and porpoises (cetaceans) are all well adapted to live in a watery world. But, they clearly are not the only animals that have evolved to survive in a specific habitat. In fact, all animals are adapted to survive in their specific habitat. Otherwise, that species will die off quickly. Students will consider some of the adaptations necessary for survival and create a new animal that reflects those choices.



### MATERIALS NEEDED

- [Critter Creation Table](#)
- [Think About It](#) worksheet
- Blank sheets of paper
- Pencils
- Colored Pencils or markers



### ACADEMIC STANDARDS

NGSS: LS1.A Cross-Cutting Concepts: Cause and effect: Mechanism and explanation, Systems and system models, Structure and function; Science and Engineering Practices: Asking questions and defining problems, Constructing explanations and designing solutions.

COMMON CORE: ELA RI.4.4, RI.4.7, SL.4.1, SL.4.2, W.4.1, W.4.2, W.4.3, W.4.4

# LESSON DIRECTIONS



## INTRODUCTION

In small groups, or individually, ask students to think about their favorite animal or any animal that they find interesting. You can show them this [YouTube video](#) that explains Structure and Function. Have them consider any special structures this animal has that allow it to survive in a particular environment. Suggested prompts to get them started include:

- How does the animal stay warm or cool (fur, blubber, hair)?
- How does the animal get food (claws, fly, fast runner)?
- How does the animal survive in a very wet or very dry environment?
- What shape might the animal be if it needs to keep water or snow off of it?
- What is the animal covered with (scales, feathers, fur, hair, shell)?

Once they have spent time considering these question, have them share out with the rest of the class.

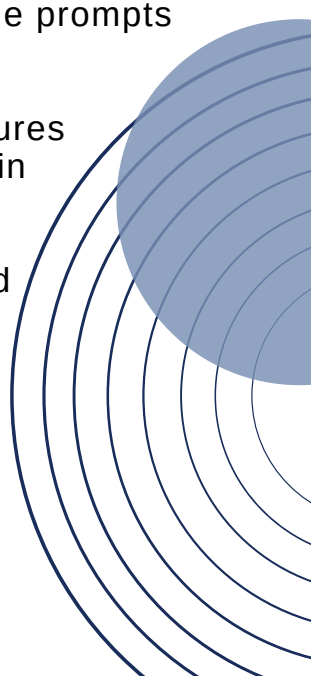
"We think \_\_\_\_\_ have \_\_\_\_\_ to help them \_\_\_\_\_."

This [video](#) provides further instruction.



## ACTIVITY

- Encourage each student to use their imaginations and their understanding of how body parts function, to design a new animal. The animal they create can be completely imaginary or include features of known animals. They must consider the animal's habitat as well.
- Have the students draw their 'created critter' on a blank piece of paper large enough to allow a viewer to see all the structures of the animal. Remind students that each structure (body part) or feature needs to have a function (a job). You can remind them of the prompts used in the introduction above.
- Direct the students to label the unique and important structures of their critter and then list each Structure and its Function in the [Critter Creation Table](#).
- They should give their new animal a name, like 'fringe-gilled pigfish' or 'red-kneed rockhopper'. They should also make notes about its habitat.





## WRAPPING UP

- Have students answer the [Think About It](#) questions.
- Display the drawings of the new animals together with the table that explains the structure and function of each creature or have students present their animals for all to see.



## Have more time?

Try these additional activities to help students...

- Color in their new critter
- Create an animal that lives in an environment that is completely different than for their first animal

### Need Additional Resources?

- [NatGeo Weird Wild Animals](#)
- [Smithsonian Weird Animals](#)



Ready for the next lesson?

**Lesson 6**

[Whale Adaptation - Blubber](#)

