

NEW BEDFORD WHALING MUSEUM

# WHALES GIANTS OF THE OCEAN

## Facilitator's Guide - Lesson 3.1 Animal Classification

Lesson time: 60 minutes



Classification is the arrangement of objects, ideas, or information into groups, the members of which have one or more characteristics in common. Classification makes things easier to find, identify, and study.

## WELCOME!

This facilitator's guide will assist you as you lead *Whales: Giants of the Ocean-Animal Classification*. It includes links to resources that can be used to present the material to students. The guide can be used with the [Animal Classification presentation](#) or on its own. Several adaptations and supplemental activities are available separately. All resources can also be found on the New Bedford Whaling Museum website at [www.whalingmuseum.org/](http://www.whalingmuseum.org/)

## GUIDING QUESTION

How can characteristics be used to group animals into similar categories?

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

- Identify distinguishing features of each class of animals
- Be able to group animals into mammals, birds, reptiles, amphibians, fish and invertebrates according to their physical features and behaviors.



### KEY TERMS

Vertebrate, Invertebrate, Spine, Backbone, Warm-blooded, Cold-blooded, Fur, Scales, Feathers, Lungs, Gills



### BACKGROUND INFORMATION

This lesson has been developed to provide a flexible approach to animal classification. Without introducing Linnaeus' system, let students know that animals are classified by their physical features. Then have them do simple classification activities with images of different animals.



### MATERIALS NEEDED

- [Animal Picture Card Slide Show](#)
- [Vertebrate Dichotomous Key](#)
- [Dichotomous Key Video](#)
- [Classification Table](#)
- [Animal Sorting Sheet](#)
- ["Think About It" sheet](#)
- [Answer Keys](#)



### ACADEMIC STANDARDS

- NGSS| LS1.A Cross-Cutting Concepts: Systems and Models; Structures and Function; Science and Engineering Practices: Asking Questions and Defining Problems
- COMMON CORE| **ELA** RI.4.4, SL.4.1, SL.4.2,W.4.1, W.4.2, W.4.3, W.4.4

# LESSON DIRECTIONS



## INTRODUCTION

Explain to students that they will be learning the differences between vertebrates and invertebrates. They will also explore the characteristics of the five groups of vertebrates - amphibians, birds, fish, mammals and reptiles. You may also opt to show them this video as part of the introduction: [BrainPop Animal Classification](#)



## ACTIVITY - PART 1

- Show students the [Dichotomous Key Video](#).
- Direct the students to work through the [Classification Table](#). They can refer to the [Dichotomous Key](#) if they need help. You can verify their responses using the [Answer Key](#).
- Now that the students have had a chance to learn the characteristics of the five types of vertebrates, the students can practice sorting images of real organisms.

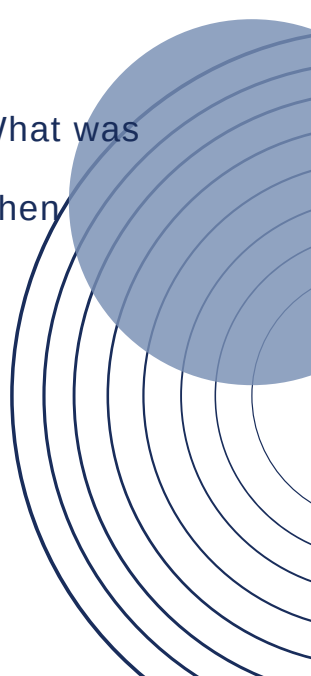
## ACTIVITY - PART 2

- Using the [Animal Picture Card Slide Show](#), guide students through each photo and have them write the category of each animal on the [Animal Sorting Sheet](#). If students don't have a printed copy of the sheet, they can write down each animal's name and category on a piece of paper.
- Be sure to point out that if the organism shown does not have a backbone, then it will be classified as an Invertebrate.
- The final slide of the presentation lists the answers. Answers can also be found on the [Answer Keys](#).



## WRAPPING UP

- Discuss any animals that were confusing to the students. What was the source of the confusion?
- Have students complete the ["Think About It"](#) questions when finished with the activity.





## Have more time?

Give students more practice with understanding the characteristics of the five groups of vertebrates. Try one or more of these additional activities.

- [Fill-in-the-blank mini-books and Answer Key](#)
- [Is It A\(n\)...? and Answer Key](#)

### Need Additional Resources?

- [School Tube Classification Video](#)



### Ready for the next lesson?

[Lesson 3.2 | Whale vs. Fish](#)

