

RESOURCE LIBRARY
ACTIVITY : 30 MINS

Seals Versus Sea Lions

Students use observation skills to determine taxonomic differences between seals and sea lions.

GRADES

3 - 5

SUBJECTS

Biology

CONTENTS

3 Images, 1 PDF, 1 Video, 1 Link

OVERVIEW

Students use observation skills to determine taxonomic differences between seals and sea lions.

For the complete activity with media resources, visit:

<http://www.nationalgeographic.org/activity/seals-versus-sea-lions/>

Program



DIRECTIONS

1. Introduce the concept of classification.

Discuss why scientists classify animals into different groups. Tell students that the science of classifying organisms into different groups is *taxonomy*. Taxonomy enables scientists to make

sense of the millions of kinds of living things and see how they are related. Ask students to think of an example of two animals that look similar but belong to different families. Show them the photo gallery of harbor seals, leopard seals, and California sea lions.

2. Distribute the worksheet and have students identify similarities.

Give each student a copy of the worksheet *Seals and Sea Lions: Compare and Contrast*. Have students compare the two drawings and list at least two features that seals and sea lions share. Discuss how these features relate to swimming in cold water. (Hair, blubber, and flippers all keep animals warm in icy water.)

3. Have students identify differences.

Have students find at least two features that differ in seals and sea lions. Ask them how they would explain how to tell seals and sea lions apart to someone who has never seen either. (Possible answers: Seals do not have ear openings; sea lions do. Seals have shorter front flippers; sea lions have longer front flippers.)

4. Have students make predictions.

Explain to students that seals' rear flippers extend backward; sea lions' rear flippers extend forward. Ask students to predict which of these marine mammals could move most easily on land (sea lions). Tell them they can confirm or revise their predictions as they watch a video.

5. Watch and discuss the video.

Show students the video of leopard seals. Then ask them to compare how each animal uses its flippers on land and in water. Discuss how this movement relates to the animals' vulnerability to predators like polar bears and sharks.

Extending the Learning

Have students use the National Geographic Animals site to research what California sea lions eat, where they find food, and how they eat it. Have students write a paragraph summarizing the information they find.

OBJECTIVES

Subjects & Disciplines

Biology

Learning Objectives

Students will:

- explain why scientists classify animals into different groups
- identify the similarities and differences between seals and sea lions
- describe how the similarities help the animals to swim in cold water

Teaching Approach

- Learning-for-use

Teaching Methods

- Discussions
- Hands-on learning
- Visual instruction

Skills Summary

This activity targets the following skills:

- Critical Thinking Skills
 - Analyzing
 - Understanding

National Standards, Principles, and Practices

NATIONAL SCIENCE EDUCATION STANDARDS

- **(K-4) Standard C-1:**

The characteristics of organisms

Preparation

What You'll Need

MATERIALS YOU PROVIDE

- Pencils
- Pens

REQUIRED TECHNOLOGY

- Internet Access: Required
- Tech Setup: 1 computer per classroom, Projector, Speakers
- Plug-Ins: Flash

PHYSICAL SPACE

- Classroom

GROUPING

- Large-group instruction

BACKGROUND & VOCABULARY

Background Information

Seals and sea lions are both mammals. Although they feed in the sea, they surface for air. They return to land to give birth and nurse their young. Seals and sea lions share adaptations for living in the sea—including blubber, flippers, and streamlined bodies. But seals and sea lions belong to different families.

Prior Knowledge

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Recommended Prior Activities

- None

Vocabulary

Term	Part of Speech	Definition
adaptation	<i>noun</i>	a modification of an organism or its parts that makes it more fit for existence. An adaptation is passed from generation to generation.
mammal	<i>noun</i>	animal with hair that gives birth to live offspring. Female mammals produce milk to feed their offspring.



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