

Details



Completion Time: More than a week

Permission: Download, Share, and Remix

Bowhead Whales: An Introduction to our Whales Unit

Overview

This First Grade unit on the bowhead whale has been created to support the knowledge of children living within a whaling community. The unit focuses on the basic components of understanding the bowhead in a more scientific manner. Although my students know the bowhead in a uniquely intimate way because of their environmental and subsistence circumstances, our goal here is to approach the acquisition of whale “knowledge” from a scientific learning perspective that will then support the environmental and subsistence knowledge that is vital to my students’ way of life.

Objectives

- Students will gain a basic understanding of bowhead whale biology
- Students will be able to label a picture of a bowhead whale in English and Inupiaq and explain each body part to a partner.
- Students will understand the “family” cycle of the bowhead, and know what and how much a whale eats.
- Students will learn that living things have unique characteristics and will explore how organisms are similar or different.
- Students will be able to show understanding in a variety of ways within classroom; share understanding with peers by comparing the bowhead with the right whale via long-distance learning with Florida community.
- Students will consider appropriate ways of protecting and respecting the land, air, and sea and the living things that inhabit the Arctic
- Students will consider what skills, understandings, beliefs, and values a person needs in an arctic environment in order to enhance his or her ability to explore, discover and thrive in that environment.

Materials

- Paper
- Chart paper
- Journals
- Crayons
- Scissors
- Printouts of blank bowhead whale and labeled bowhead whale
- Large bowhead whale cut-out
- See Resources section for additional materials

Lesson Preparation

This lesson will be five days long (one week)

Monday: Video or field trip of fall whaling, KWL of anatomy, “K”, “W” part

Tuesday: Anatomy of bowhead

Wednesday: Family “cycle” of the whale, “K”, “W” part

Thursday: What a whale eats/ how it grows, “K”, “W” part

Friday: Guest speakers (Leslie and whaling captain), “L” part of KWL/ Connect with students in Florida to share knowledge

Procedure

Monday:

- The teacher will introduce topic of the week—bowhead whales! Read book *Bowhead Whales and Whale Snow* (see Resources section)
- The students then fill out the “K” and “W” parts of KWL: Bowhead whale general topic as whole group (teacher dictates onto chart paper)
- Students will either watch video of or take field trip to fall whaling, taking note of their observations of the bowhead whale’s body.
- The students will come back to the class and share observations as teacher writes them on chart paper.
- Student reflections in journals.

Tuesday: Anatomy of bowhead

- The class will review what they saw/discussed out at whaling, what they read in the bowhead books, and what they’ve filled in on the KWL (see attached)
- The students will then discuss the KW part of a whale’s body: what do we know
- The students will be given an outline of a bowhead whale (or draw their own) and asked to label the body parts of the whale (pre-test)
- The teacher will show diagram to explain the anatomy of the bowhead whale, leading students in a discussion and answering questions about each part of the whale
- The class will label a huge whale together!
- L part of KWL
- Student reflections in journals.

Wednesday: Life cycle of the whale

- The students will share out in a discussion forum their knowledge of bowhead calves (KWL).
- The class will review the four seasons; how they correspond to our weather and whaling (and other subsistence) seasons.
- The teacher will show slides of whales and explain when calves are born, and the idea of a pod.
- Student reflections in journals.

Thursday: What a whale eats/ how it grows

- The students will share out in a discussion forum their knowledge of what bowhead whales eat (KWL).
- The teacher will bring in baleen and have students help demonstrate the process of a whale using its baleen hairs to catch krill.
- The teacher will show pictures of a whale's mouth/ stomach.
- The teacher will use "Hershey kiss comparison" to help students understand the amount of food a bowhead eats (25 gallons of krill 4,500 hershey kisses 4-5 times a day).
- Student reflections in journals.

Friday: Guest speakers (Leslie and whaling captain)

- "L" part of KWL for each three areas
- Post-test of student labeling whale body.
- Student reflections in journals.
- Share out with Florida class

Extension

This five day unit will take place in the fall. In the winter, we will be doing a unit on sea ice. The rest of the bowhead unit will be done toward the end of the year during spring whaling. Its focus will be bowhead migration patterns, why and how bowhead whales are in the Arctic (using our knowledge of sea ice), and spring whaling traditions and techniques.

Resources

- Bowhead Whales by Kristin Petrie (or another non-fiction text on bowheads)
- Whale Snow by Debbie Dahl
- Video of fall whaling
- Bowhead Printables file, attached (contains KWL, Observation checklist, bowhead anatomy diagram,
- <http://www.north-slope.org/departments/wildlife/>
- <http://www.enchantedlearning.com/subjects/whales/species/Bowheadwhale.shtml>

Assessment

Student assessment will occur on a daily and end of unit basis. KWL learning will be used. Quick checks for understanding on daily concepts will take place through journal reflections. Comparisons of pre and post tests will be used. For bowhead anatomy, individual completion of a labeled whale will show learning.

Credits

Angie Gilmour



National Science Education Standards

Content Standards, Grades K-4

Content Standard C: Life Science

- a. Characteristics of organisms
- b. Life cycles of organisms
- c. Organisms and environments

Other Standards

N/A

Model of what to put on Chart paper

K what do we KNOW about bowhead whales:	W what we WANT to know about bowhead whales:	L what we have LEARNED about bowhead whales:

Model of what to put on Chart paper

K what do we KNOW about:	W what we WANT to know about:	L what we have LEARNED about:
Bowhead Anatomy (body parts)	Bowhead Anatomy (body parts)	Bowhead Anatomy (body parts)
Bowhead calves	Bowhead calves	Bowhead calves
What and how the bowhead eats/ grows	What and how the bowhead eats/ grows	What and how the bowhead eats/ grows

Observation checklist:

Out at Whaling, what did we...

See?

Hear?

Smell?

Taste?

Touch?

BOWHEAD WHALE

350 pairs of
black baleen in
mouth

2
Blowholes

Eye

Black skin

Flukes, with
patches of white xx

Median
notch

Blubber 20-inch
(50 cm) thick

Short, narrow
flippers

White skin below
mouth

60 feet (18.5 m) long

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