LESSON ONE

SCIENCE ACTIVITY 1.3

Grade Level K-6

Describe A Pinniped

OBJECTIVE

Students will identify physical characteristics of different types of pinnipeds in Alaska.

TIME REQUIRED

20 minutes

BACKGROUND

Pinnipeds are separated into three general groups: true seals (phocid); eared seals (otariid); and walruses (odobenid). Students will identify physical characteristics of each type of seal pictured and sort them into common groups.

MATERIALS

- Pictures of northern fur seal, Steller sea lion, harbor seal, and walrus (optional: include pictures of iceassociated seals – ringed, bearded, ribbon, spotted seals)
- Marine mammal reference books (from library) or Guide to Marine Mammals of Alaska by Kate Wynne, for older students (grades 4-6)
- T-chart
- List of Unangan names for seals

PROCEDURES

• For younger grades (K-2 or K-3) this activity can be completed as a class. For older grades, divide students into small groups or pairs and give each group a picture of a pinniped. At minimum, northern fur seal, Steller sea lion, harbor seal, and walrus should be used. Use one animal as an example and go through the process with the whole class before they work independently. Depending on the age of the students, you can choose to set up four or five characteristics that they need to describe (e.g. body shape, head shape, length of flippers, presence/absence of ear flaps, standing on all four flippers), or have the students come up with their own categories.

- Tell students to write down physical characteristics that they see for their animal
 - Body shape
 - Length and shape of flippers
 - Shape of head, presence or absence of ear flaps
 - Patterns on fur
 - Whether the animal can stand up on its flippers or lies on its stomach
 - Shape of flippers
 - Any other characteristics they can come up with
- For older students, ask them to use reference books to look up facts about the animal, including length, weight, distribution
- When groups are finished, ask them to present their results to the class. Create a class summary of characteristics
- Have a student from each group stand at the front of the class with a picture of their animal.
 Ask the class to sort students into groups based on common characteristics of their animal.

DISCUSSION

Review the main characteristics of true seals, eared seals, and walruses.

EXTEND AND EXPLORE

- Ask each group to take the picture of their animal to an elder in the community and ask about the Unangam, non-English, or other traditional name for the animal and any knowledge about the animal.
- Ask students to research the correct format for citing a book. Use Guide to Marine Mammals of Alaska as an example.

REFERENCES

Wynne, Kate. Folkens, Pieter. *Guide to Marine Mammals of Alaska*. Alaska Sea Grant Program.
Fairbanks, AK: University of Alaska Fairbanks, 2009.

Bergsland, Knut. *Aleut Dictionary*. Fairbanks, AK: University of Alaska Press, 1994.



Harbor seal



Harbor seal



Spotted seal



Spotted seal



Ribbon seal



Ribbon seal



Ringed seal



Ringed seal



Fur seal (male)



Fur seal (male and female)



Fur seal (female)



Fur seal (female)



Sea lion (male)



Sea lion (male and female)



Sea lion (female and pup)



Sea lion (female)

Elementary Curriculum: Grades K–6

ACTIVITY 1.3 WORKSHEET 1.3.3

Describe a pinniped: Pictures of walrus







Walrus

ACTIVITY 1.3

WORKSHEET 1.3.4

Describe a pinniped: Unangam names of pinnipeds

Note: numbers in parentheses refer to page numbers in the *Aleut Dictionary* (Knut Bergsland). Refer to P. 727 for words for different types of seal, fur seal and sea lion.

Harbor seal

Isux - (214) - harbor seal

Spotted seal

ukutu \hat{x} – (432) – small white hair seal with black spots (shows up in winter, sticks head up and looks around) – possibly spotted seal

Ribbon seal

tuxtux (403) – small kind of seal (comes from north in cold weather), probably ribbon seal

Ringed seal

puchaaskiĝilix (288) - ringed seal

Fur seal

Laaqudax – (254) – fur seal (eastern dialect)

Laaqudaax - (254) - fur seal pup

Sea lion

Qawax - (313) - Steller sea lion

Walrus

Amgaada x - (64) - walrus

ACTIVITY 1.3 WORKSHEET 1.3.5 Describe a pinniped

Animal Name:	
Characteristic	Description

ACTIVITY 1.3 TEACHER KEY 1.3.5 Describe a pinniped*

Characteristic	Description
Body shape	Big and bulky (adult male); long and sleek, with long neck (female, juvenile)
Head shape	Small in comparison to the rest of the body; nose very short and pointed; eyes large. External ear flaps.
Flipper shape	Large foreflippers; fur stops partway down the flipper. Hindflippers can rotate forward under the body so that the fur seal can stand up on all four flippers. Hindflippers are long and narrow and have very very long toes that can be bent Hindflippers have nails or claws that they use to scratch themselves.
Fur	Fur is dark and thick; on males there is a thicker area of fur on the neck and head. Fur has two layers, a dense underfur and longer guard hairs. Juveniles and females have a silvery-brown coat which is lighter on the underside of the animal, and lighter cream-colored "cheek patches." Male fur color is more uniformly dark brown. Pups have black fur at birth. Pups molt into their first silvery-brown coat by October of their first year.
(example of information that students can get from reference books)	
Length	
Weight	
(can also add in characteristics that you know personally)	
Meat	Darker than sea lion; tastes different than sea lion
Intestine	Used to make waterproof clothing

^{*} create a key for each seal

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