

Design a Sea Lion

Objective

Students investigate sea lion adaptations and create a sketch that illustrates a sea lion's body parts and adaptations.

Materials

- drawing paper
- pens or pencils
- Design a Sea Lion* worksheet (next page)
- Reference materials or internet access

Background

Marine animals feature adaptations which help them survive in unique habitats. Flippers for swimming, blowholes for breathing, and blubber for streamlining and warmth are just a few. Sea lions are a marine mammal that spend time swimming in the ocean but also rest on land. This means they are adapted for life at sea as well as the shoreline. Flippers used for swimming can also be used for walking on land. Blubber that keeps them warm in cold waters may cause them to overheat on land.

Action

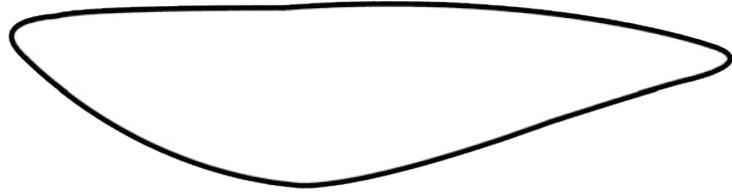
1. As a class, brainstorm challenges that humans would face if we were put in the middle of the ocean. How would we stay warm, see under water or in bright sunlight, or find food?
2. With these challenges in mind, discuss the adaptations sea lions have to survive in the sea.
 - pointed teeth to capture prey
 - vibrissae (whiskers) to explore surroundings and detect prey
 - a mucous tear to protect their eyes from sea water and sunlight
 - blubber for insulation, streamlining, and a reserve energy source
 - fur as a body covering
 - pectoral flippers for swimming and walking on land
 - hind flippers for steering in the water and walking on land.
3. Distribute *Design a Sea Lion* worksheets, pencils, and paper to each student. Instruct them to read the directions and sketch a sea lion. They will label the sea lion's body parts.
4. Discuss how an animal's physical adaptations help define its repertoire of behavior. Students consult reference materials (library books or the internet) to investigate sea lion survival behaviors. Ask them to sketch some of the following:
 - holding one or more flippers out of the water
 - diving
 - catching prey
 - avoiding a predator
 - vocalizing
 - hauling out (out of water onto land)

Design a Sea Lion

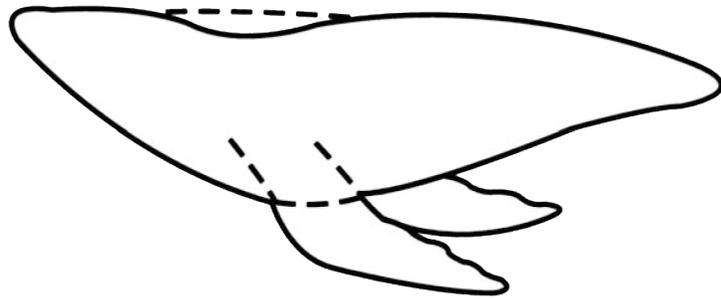


Name _____

Draw the torpedolike body shape of a sea lion. Blubber helps streamline the sea lion's body. A streamlined shape produces less resistance and helps a sea lion conserve energy as it swims.



Add the pectoral (front) flippers. They are broad, furless, and very strong. A sea lion uses its pectoral flippers to swim in the water and to walk on land.



Draw the hind flippers. Like the front flippers, each has five toes or digits similar to those in our hands and feet. Hind flippers help a sea lion walk on land. Add a small tail.



Add eyes, which are large; whiskers, which are sensitive; ear flaps and a nose. Sea lions can open and close their nostrils.

