



# Seal Adaptation



Modified by Lucia Merino

## Goals:

1) Youth will learn about adaptation and how environmental demands influence adaptation. (ex: adaptations for cold, for catching food, for getting away from predators, to see in salt water and not get water in nose etc.)

2) They will learn to distinguish migration patterns

3) To learn about the endangered species act.

## Materials:

- 1) World Map
- 2) Map of RI and Narragansett Bay
- 3) Picture of "banana position"
- 4) Giraffe Picture
- 5) Pillow (for fat)
- 6) Fake Fur
- 7) Goggles
- 8) Flippers
- 9) Clothes Pin
- 10) Whiskers
- 11) Mittens
- 12) Snorkel

**Step 1:** Tell the kids we are going to learn about an animal that lives in R.I. during the winter and **migrates, or moves**, to Canada and the subarctic waters when in the spring. Ask them why they think it would do that? (Answer: they like cold waters)

**Step 2:** Show them the migration pattern on the map of North America, point out subarctic waters)

**Step 3:** Ask the kids, "What other animals migrate?" Have them get up and write their answers on the board. Then define **Migration:** When a species is in one place for part of the year and moves to another for the other part. -Add that in RI Canadian geese can be seen each year flying in the V-shape migrating.

Step 4: Ask a volunteer to come and point out RI on the map.



**Step 5:** Ask another volunteer if they know what the name of our bay is (**Narragansett Bay**) on the RI Map. Tell them we have **Harbor seals** right in Narragansett Bay.

Step 6: Ask the students "Why do you think Harbor seals would like to "hang out" in Narragansett Bay in the winter besides them liking our cold winter waters?"

(Answers: **Plenty of food:** fish and squid, **\*No predators:** sharks, killer whales, polar bears, **\*Lots of rocks to relax on.** --When harbor seals relax they like to do a banana position on the rocks. (show picture of banana position), **\*Protected by Endangered Species Act.** Cannot come in contact with the seals, boats have to keep a certain distance, no hunting, etc....**What are endangered species? What human dangers could lurk in the waters?**

Review

Reflect



**Step 7:** Now let's learn about seal adaptations! Write "adaptations on board".

**Step 8:** Tell them the background, "All living things have adaptations. An adaptation is when a living thing changes over time to be able to survive where it lives (it's environment). An example is the neck of a giraffe. (show a picture of a giraffe) It used to be short, but over time the giraffes born with longer necks survived because they were able to reach more food in the trees. As a result, they had more babies with long necks like them until all the giraffes left had long necks. Do you think this happened over night? Answer:(takes thousands of years)

**Step 9:** Humans can make tools and that was an adaptation we got to be able to survive since we are not as strong as other animals. We have an opposable thumb. Imagine doing your everyday chores without your thumb? Think about what it would be like?

**Step 10:** To test this, everyone cross your thumbs in your hands and only use your eight fingers to untie and retie your shoe. No cheating!!! (can't do it, or it is very, very difficult). So our thumb is an adaptation we have to survive to make



## Seal Activity

**Step 1:** Ask for a Brave volunteer to come up to the front. Tell them they will be our local harbor seal!

**Step 2:** Ask, "What is an adaptation the seal might have to stay warm in the cold water?" Answer: fat & fur, put them on the student.

**Step 3:** Prompt them with more questions, Do you think it would be easy to see underwater? What happens to your eyes if you open them when swimming in the ocean? Seals have an extra clear eyelid like you might see in a cat. (add goggles)

**Step 4:** What is an adaptation they might have, to swim fast to catch prey and get away from predators? (add flippers) front flippers for steering, back for going fast

**Step 5:** What could be an adaptation that seals may have to keep water from getting up their nose? (add close pin) (they can close their nostrils)

**Step 6:** What adaptation could help their sense of smell and feeling? (hint: a cat) whiskers.

**Step 7:** What is an adaptation that could help them hold their breath for a longer time than humans? (bigger lungs) snorkel. ( humans can hold breath up to 2 minutes, seals can 9-15 minutes). Give a round of applause for our brave seal!

**Final Discussion:** ask- "How can you help protect harbor seals? Why should we protect endangered species?"

Apply