

Grades 3-5: Adaptations

An ADAPTATION is a physical feature an animal has or behavior that an animal uses to help it survive in its habitat. Examples of adaptations include migration (behavioral) or camouflage (physical). Many adaptations help an animal to find food, or prevent it from becoming food. Adaptations often take thousands of years to become evident within a population. Those that increase the animal's chance of survival are passed on to future generations, while those that do not eventually fade away.

Zone A – Shipwrecked and Ocean Realm

Horseplay – Seahorses are the slowest swimming fish in the ocean. While they have a different body arrangement than fish you might see in other exhibits, they are fish. Their special body plan helps them survive in their grassy ocean habitat. Because they are such slow swimmers, it is possible for them to get carried away by ocean currents. They have developed a prehensile tail (much like a monkey's) that they can use to wrap around the grasses and keep from drifting away.

- Look closely at the seahorse's skin. Does it have scales or does something else cover its skin? If it doesn't have scales, is it truly a fish?
- Although they are slow swimmers, seahorses do swim. Observe the animals in the exhibit for a few moments. How do they swim?

Zone B – Stingray Beach Club

Stingrays – Stingrays are a cartilaginous fish related to sharks. They have a flattened body design, with their gills and mouths located on the ventral (bottom) side of their bodies. They are mostly bottom feeders, preferring food like clams, mussels, and crabs and use flat, crushing teeth to crush the shells of these prey items. The most notable adaptation of the stingray is the barb located on the tail. It is used for protection against predators such as sharks. It is sharp, often serrated, and sometimes venomous.

- What is the purpose of the holes located behind the stingrays' eyes?
- What is an example of a behavioral adaptation that the stingray exhibits?



For the full "Adaptations" Exhibit Companion, visit Educator Inlet at AdventureAquarium.com

Zone C – KidZone

Clownfish and Anemones – Clownfish are slow swimmers, and depend upon the anemone for protection from predators. The anemone, in return, gets cleaned of parasites, increased water circulation (by the clownfish swimming in and out of it), and food – sometimes other fish are lured into the anemone by the clownfish’s presence, other times the clownfish will actually bring food to the anemone and feed it. Clownfish are covered by a slimy mucus that protects them from the anemones stinging tentacles.

- What could happen to a clownfish if it was unable to find an anemone in which to live?
- What could happen if the clownfish loses it’s slimy mucus covering?



Zone D – Shark Realm

Shark Realm – The Shark Realm exhibit will surround you with 30 sharks – Nurse sharks, Sand Tiger sharks, and Sandbar sharks. There are over 375 known species of sharks that range in size from the 6-inch Cigar shark to the 60-foot Whale shark. Sharks are some of the best-adapted animals on earth. They come in different shapes and patterns, and their teeth are continuously replaced throughout their lives.



- Look closely at the shark’s coloration. Why do you think the sharks have light bellies and dark backs?
- Sharks’ skeletons are made out of cartilage, the same thing that your ears are made of. Is this hard like a bone, or flexible?
- Why do you think having a skeleton made out of cartilage would be an advantage?