

Deep Sea Learning with Georgia Aquarium



A Shark's Sixth Sense

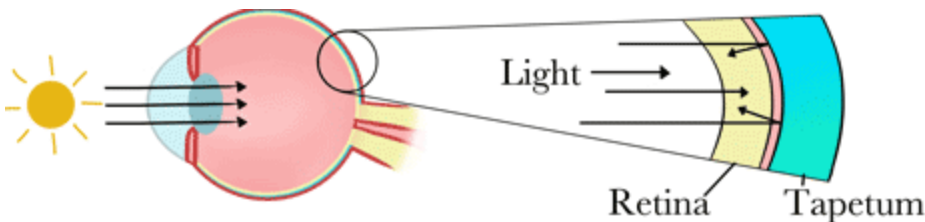


Shark's Smell: Sharks have nostrils just like humans, but unlike humans, sharks' nostrils are only used for smelling and their gills are used for breathing. Sharks can smell blood from hundreds of meters away.

Shark's Eye Sight: Most sharks have amazing vision. Their eyes allow them to see during the day and in the dark. Research suggests some species may even perceive colors. Sharks have a reflective layer of tissue in the back of their eyes called a tapetum lucidum which helps them see with very little light.

Shark's Hearing: Sharks have ears but they are hard to see; they are just two small openings behind and above the eyes. While a shark's ears may be small, they're powerful. Inside, specialized cells sense even the tiniest vibration in the surrounding water and an 'ear stone' responds to gravity, giving the shark clues as to where it is in the water: head up, head down, right side up or upside down.

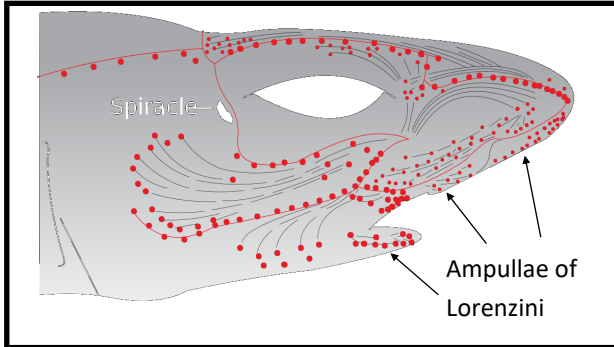
Shark's Taste: They have taste buds inside their mouths and throats. This gives sharks the ability to identify the type of food before swallowing.



Sharks Touch: Theirs is a little different, they can feel things along their bodies using a lateral line system. Essentially, if there's changes in water movement they can feel those changes.

Visit <https://www.georgiaaquarium.org/at-home-learning-with-georgia-aquarium/> for more online resources to use at home!

A Shark's Sixth Sense



The Sixth Sense!

- **Electroreception:** Sharks have small, black spots around their head called ampullae of Lorenzini. These are jelly filled pores that go down to the nerve receptors at the base of the dermis. They are specialized electroreceptor organs that allow the shark to sense electromagnetic fields and temperature changes in the water column.
 - ◇ These organs allow sharks to find prey at a very close range by sensing the weak electrical fields produced by animals in the ocean.
 - ◇ These organs also sense the Earth's Electromagnetic field, allowing the sharks to use this for homing and migration.

Shark Navigation Activity:

Materials:

- Cardboard (2)
- Metal objects or magnets
- Shark Image
- Paint or construction paper
- Scissors
- Glue

Instructions:

1. Draw a navigation route on the cardboard.
2. Glue metal objects or magnets on top of route.
3. Flip cardboard over.
4. Decorate this side of cardboard with paint or construction paper.
5. Cut out an image of a shark.
6. Glue shark image to a small second piece of cardboard
7. Glue magnet to back side of shark cut out.
8. Move shark cut out on decorated board to find the navigation route!

