

AQUADEMY LESSON 4: ANIMAL SENSES

Fish have the same five senses that people have, and more! In today's final lesson we'll explore the aquarium and learn more about how animals use their senses to interact with the watery world around them.

TASK: Can you name all 5 of the human senses?

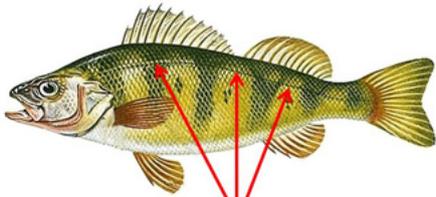
1. _____
2. _____
3. _____
4. _____
5. _____



1

W.O.W

The lateral line



The lateral line is a line of very small pores (holes) that sense water movements and vibrations.

Fish have a special sixth sense, called the **LATERAL LINE** that allows them to detect water movements and vibrations. Detecting movement helps fish find prey or escape from predators.

TASK: Count how many fish you see with lateral lines.

2 SHIPWRECK

Fish can see just like us, but their eyes are on either side of their head so they can see all around their body!

TASK: Can you find a fish with eyes on the front of his face like us?

HINT: He's a bit pokey!

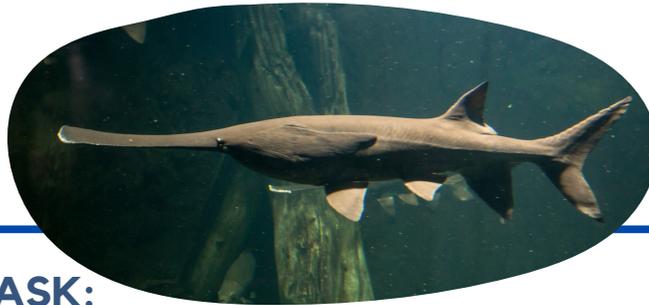


3

THE DOME

Find the Paddlefish, what do you think they use their long noses for?

They use their big nose and a special ability called **ELECTRORECEPTION**, this means they can **FEEL** the electricity their food puts off. So their big nose is kind of like a metal detector, but instead of metal it finds food!



TASK:

If you could have a special super power, what would it be? What would you use it for?

4



TASK:

What are some things you've smelled in the aquarium today?

SHORELINE

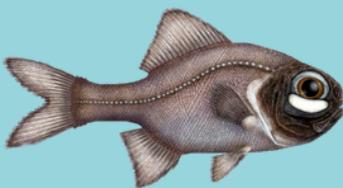
We've talked about **TUBEFEET** in previous lessons, they help sea stars and sea urchins move around and hold onto rocks. **DID YOU KNOW** they also help them **SMELL**?! Starfish have a very strong sense of smell, they can detect the faintest scent of food and even tell what direction it's coming from!

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5

THE CAVE



TASK:

Can you name another example of a **SYMBIOTIC RELATIONSHIP** at the aquarium? **HINT:** Think about a famous Disney movie about an orange fish.

The Flashlight Fish uses its light to stay with their group in the dark and to attract food. The light is created by glowing bacteria that live in a pocket of skin under their eyes. This is called a **SYMBIOTIC RELATIONSHIP**, which is when two organisms form a long-term mutually beneficial relationship meaning both benefit from the relationship. In this case, the bacteria have somewhere safe to live and the fish is able to use the light produced by the bacteria to find food and other flashlight fish.

6 THE TUNNEL

Fish hear, but their "ears" are on the inside. Bony fishes detect vibrations through their "earstones" called **OTOLITHS**.



Can you find a red fish in the tunnel? This is a Squirrelfish, they are known for their ability to make a variety of clicking and grunting noises.

TASK: What do you think the squirrelfish sounds like? Make a noise you think would sound like a squirrelfish.

7 CONTACT COVE



TASK: Can you find another animal with barbels? Hint: Check the **SHARK** tunnel.

There is a tank on your left hand side as you exit the Shark Tunnel. Can you find a fish that is red and yellow?

This is a Goatfish, his whiskers are called **BARBELS**. He uses them to feel around but they are actually covered in **taste buds** and help the goatfish to find food.

8 SUBMARINE

Sea Jellies have no brain, but they have basic senses like smell and touch! This means they can feel it when we touch them!

TASK: What does the Moon Jelly feel like compared to other animals you've touched today?



Final Test!

Take this mini quiz to test your knowledge!

What does the Lateral Line help fish do?

- A. Stay away from other fish
- B. Find fish
- C. Detect water movements and vibrations

What does electroreception help an animal do?

- A. Feel the electricity of their food
- B. Shock their food
- C. Shock their predators

What is an otolith?

- A. A Stingray ear
- B. A Shark ear
- C. A Fish ear

What does having eyes on the side of their head help fish do?

- A. Hide
- B. Find food
- C. See all around their body

Sea stars can _____ with their tube feet?

- A. Smell
- B. Feel
- C. See

What are barbels?

- A. A feeler used to find food
- B. A whisker covered in taste buds that some animals can use to find food
- C. A whisker

List all 5 of the human senses. BONUS: Can you list 2 senses fish have that humans don't?

1. _____
2. _____
3. _____
4. _____
5. _____

BONUS: _____

Word Bank

Smell
Sight
Taste
Touch
Hearing
Electroreception
Lateral Line
Otolith
Barbel

You have completed Lesson 4: Animal Senses!

Bring this packet to the gift shop to check your answers. Turn in your punch card with all 4 stamps to redeem your prize!