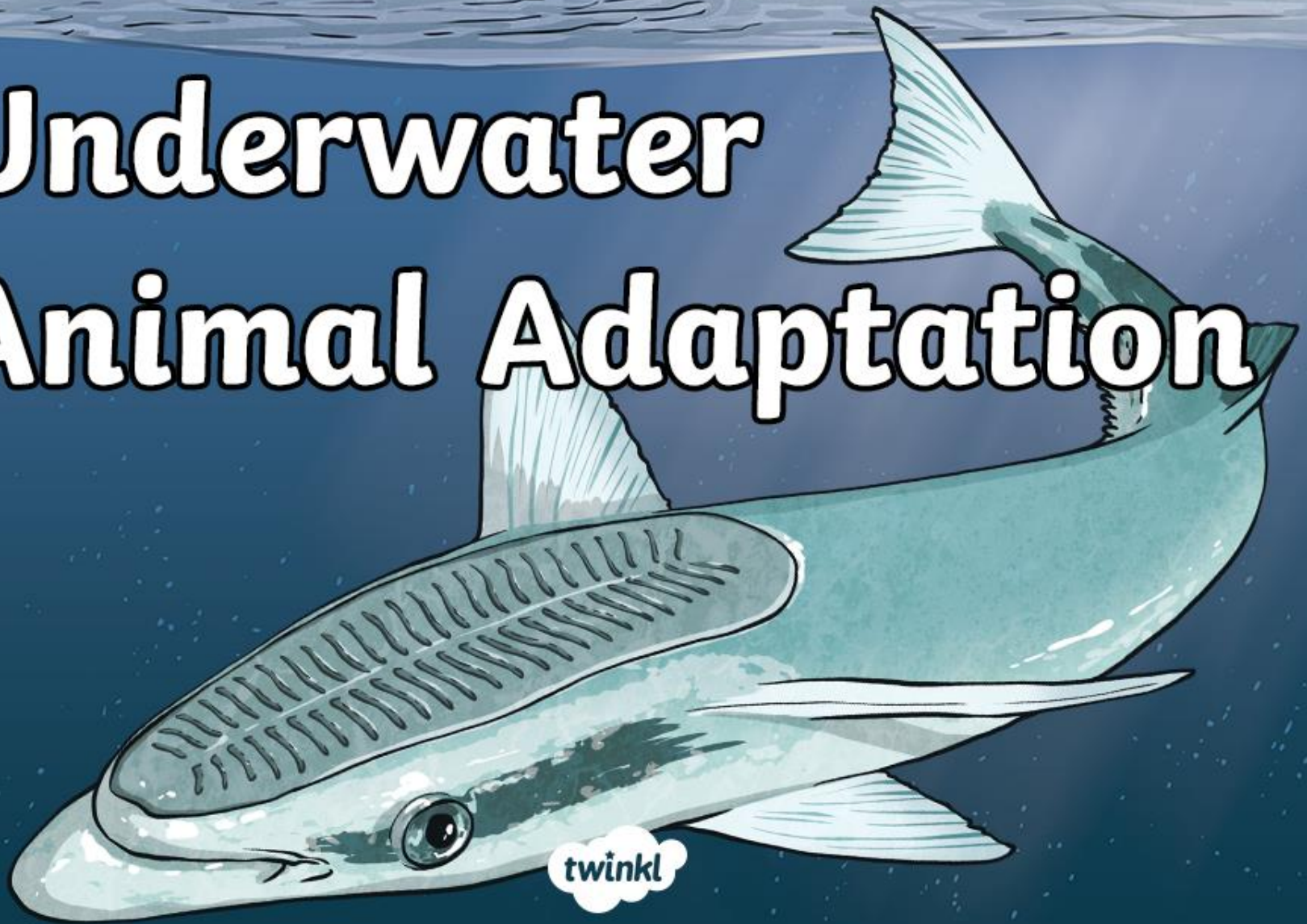


# Underwater Animal Adaptation

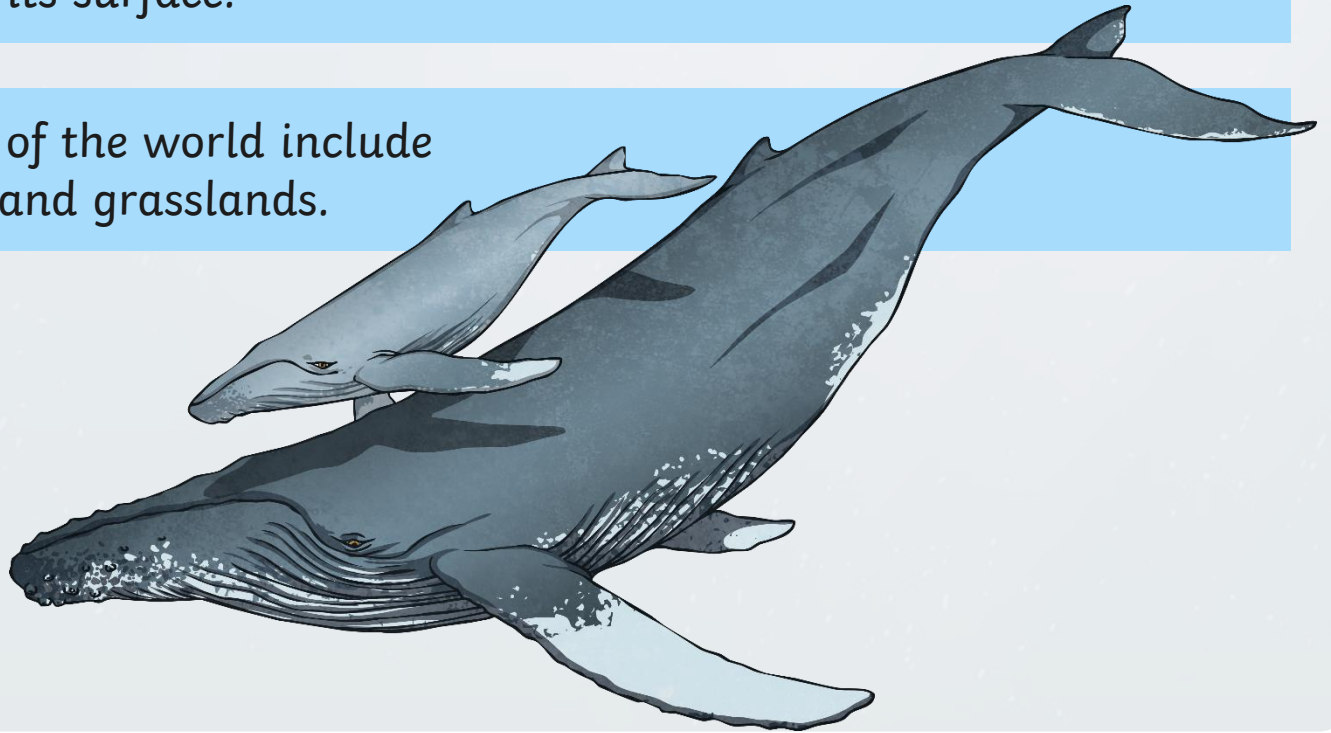


# What Are Underwater Animals?

Underwater animals live in the **aquatic biome**.

A **biome** is a large region with a specific climate that contains living creatures. The aquatic biome is the largest on our planet, taking up about 75% of its surface.

Other biomes of the world include desert, forest and grasslands.



# Underwater Habitats

The aquatic biome can be subdivided into two types of habitats:

- **Freshwater habitats** – These have low levels of salt (less than 1%). They include rivers, lakes, streams, ponds, swamps, wetlands, bogs and brackish waters.

- **Saltwater habitats** – These have salt concentrations over 1%. They include oceans, seas and coral reefs.

## Did You Know...?

There are also habitats where saltwater and freshwater mix together, such as mudflats, mangroves and salt marshes.





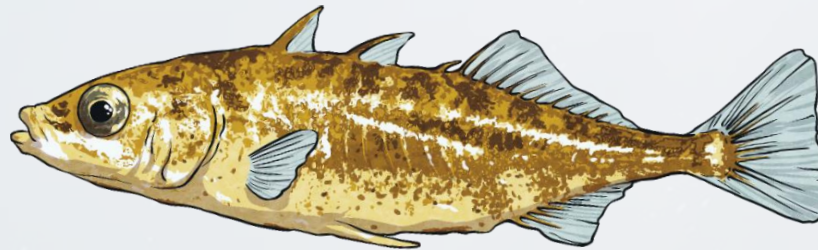
# Adaptations to live underwater

## Gills

Fish have **gills** that allow them to “breathe” oxygen in water. Gills absorb oxygen from the water as it passes over them.

## Stream-lined body

They are typically long and narrow, which reduces water resistance when they swim.



## Fins

Most fish have several fins for swimming. They use some of their fins to move through the water and others to steer the body.

# Adaptations to live underwater

## **Blowholes**

Whales however are mammals and therefore do not have gills. It has a blowhole in inhale and exhale oxygen from the surface.



## **Stream-lined body**

They are typically long and narrow, which reduces water resistance when they swim.

## **Blubber**

Whales have under the skin blubber which is a layer of fat that helps to provide warmth and buoyancy.

## **Flippers (Similar to fins)**


Large fins and tail to aid movement and steering.

# Different Animals, Different Underwater Habitats


In this PowerPoint, you will find out about the following underwater animals and their adaptations:



stonefish



comb  
jellyfish



giant  
Pacific  
octopus



anglerfish

# The Anglerfish

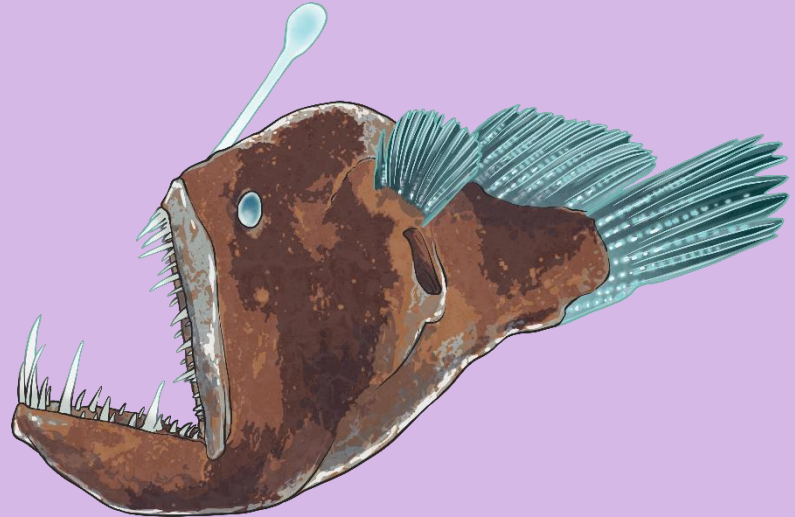


## Habitat:

Saltwater - deep sea

## Adaptations:

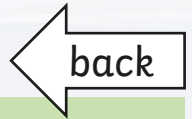
The deep sea anglerfish has adapted to its environment by means of **skin colour**. It uses this adaptation to protect itself from predators, as well as to disguise itself when hunting. Anglerfish are famous for the 'glowing bulb' that they use to attract prey.



## Where on Earth?

There are more than 200 species of anglerfish. Most anglerfish live in the dark depths of the Atlantic and Antarctic oceans.

# The Comb Jellyfish



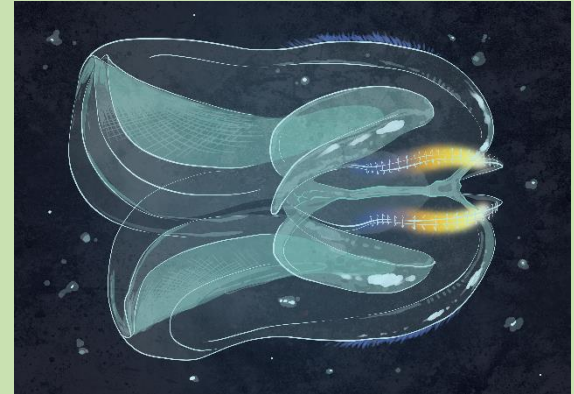
## Habitat:

Saltwater - deep sea

## Adaptations:

The comb jellyfish has three main adaptations:

- **Movement** – They swim using little hairs, or 'cilia', that move them through the water.
- **Communication** – They reflect light off their cilia to signal to mates and other jellyfish.
- **Feeding** – They use tentacles to catch prey.

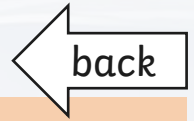


## Where on Earth?

They are extremely diverse, living in areas ranging from the equator to the poles and from the ocean surface to below 7,000 metres.



# The Stonefish



## Habitat:

Saltwater - coral reef

Some species adapted to freshwater.

## Adaptations:

The stonefish has developed a series of adaptations that help it survive in the coral reef:

- **Camouflage** – Due to its wart-like skin, it can hide next to or under rocks, in reefs or in sandy or muddy bottoms.
- **Defence** – It has a dorsal fin with 13 spines that can inject venom into predators.
- **Movement** – Its pectoral fins help it swim and move around in the sand.



## Where on Earth?

Although they prefer saltwater habitats, some species are known to live in rivers.

# The Giant Pacific Octopus

back

## Habitat:

Saltwater - Pacific coast

## Adaptations:

The giant Pacific octopus has many adaptations, including:

- **Movement** – Its two rear arms function as legs that, together with the siphon (an organ it uses for breathing which allows it to eject water in a form of jet propulsion), propel it forward.
- **Camouflage** – It can change colour and even texture (looking either rough or smooth) to blend into its surroundings.



## Where on Earth?

These highly intelligent animals are found throughout the waters of the Pacific, ranging from southern California to Japan.