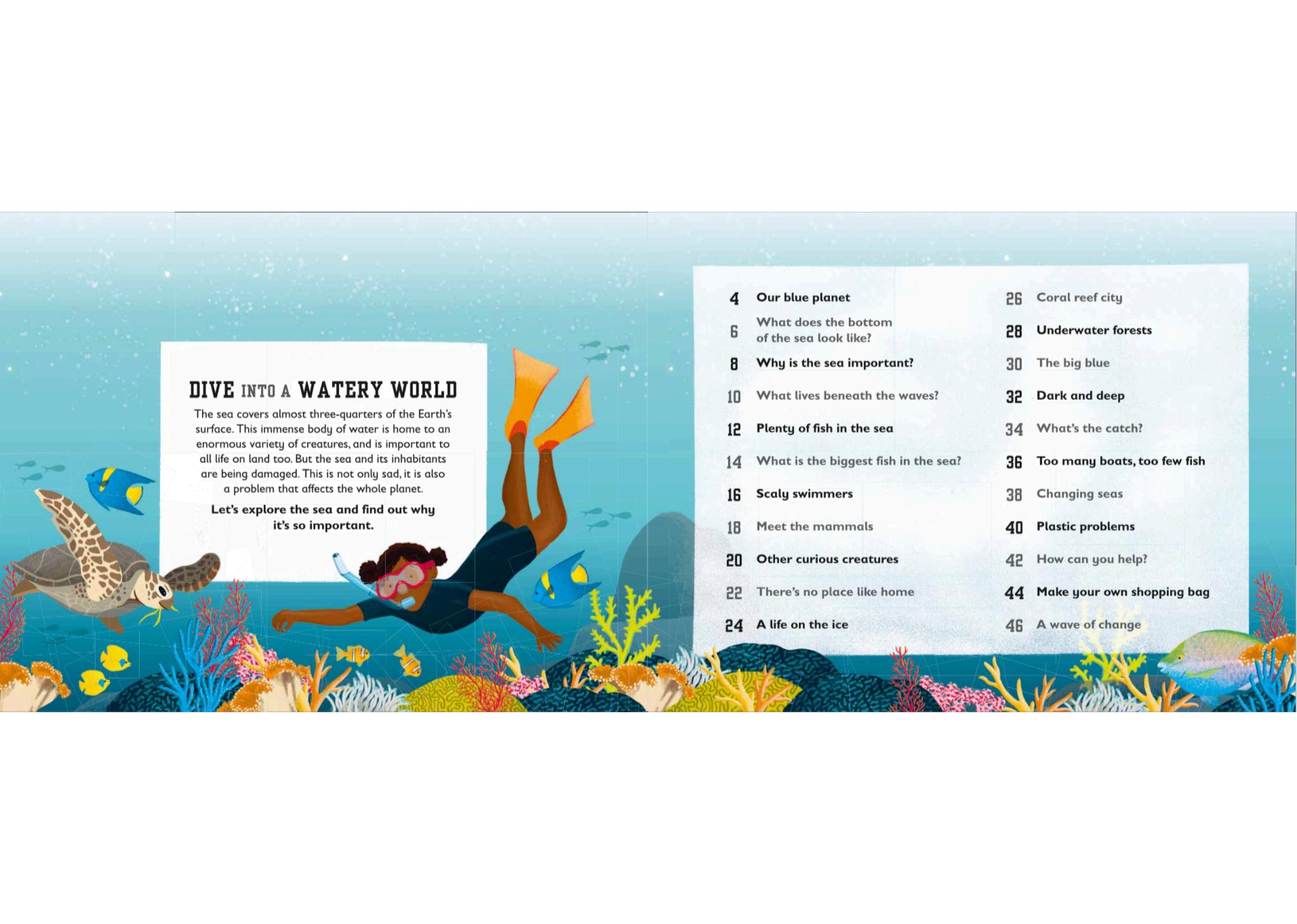


## DIVE INTO A WATERY WORLD

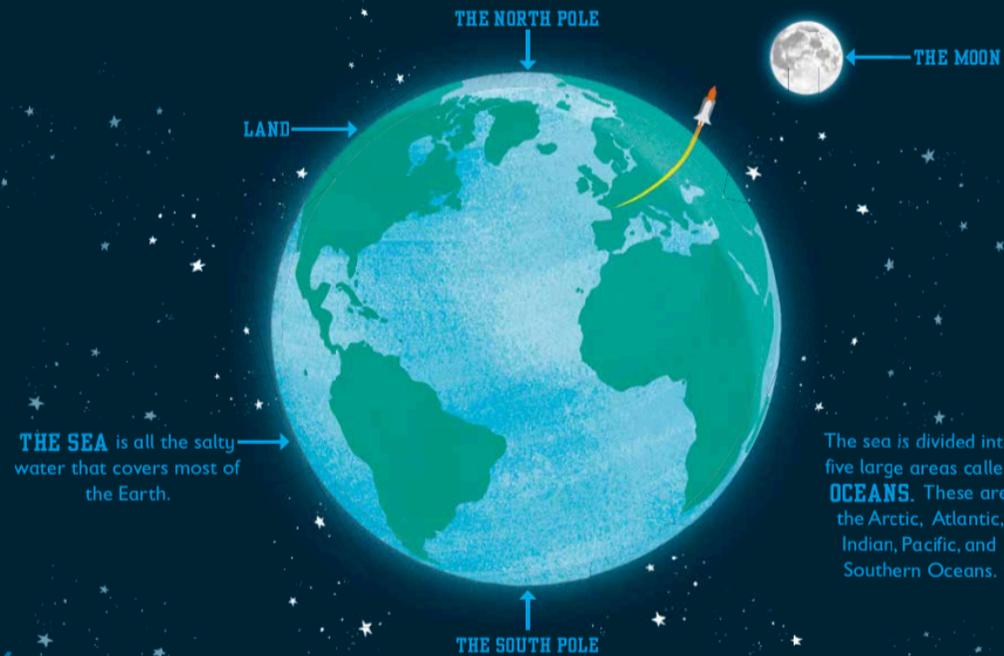
The sea covers almost three-quarters of the Earth's surface. This immense body of water is home to an enormous variety of creatures, and is important to all life on land too. But the sea and its inhabitants are being damaged. This is not only sad, it is also a problem that affects the whole planet.

**Let's explore the sea and find out why it's so important.**

- 
- |           |   |           |                                     |
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## OUR BLUE PLANET

If we look at planet Earth from far away in outer space, it looks very blue. This is because our planet is mostly covered in water. It is all this water that gives life to everything on Earth.

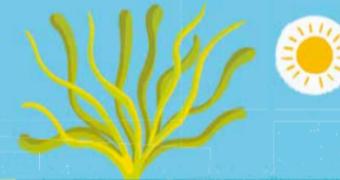


**THE SEA** is all the salty water that covers most of the Earth.

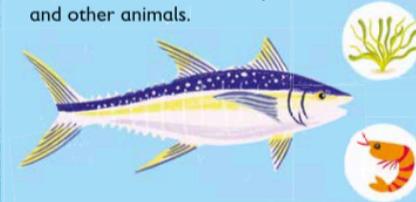
The sea is divided into five large areas called **OCEANS**. These are the Arctic, Atlantic, Indian, Pacific, and Southern Oceans.

The sea is planet Earth's biggest habitat and it is home to many living things. **MARINE LIFE** describes all the animals and plants that live in the sea.

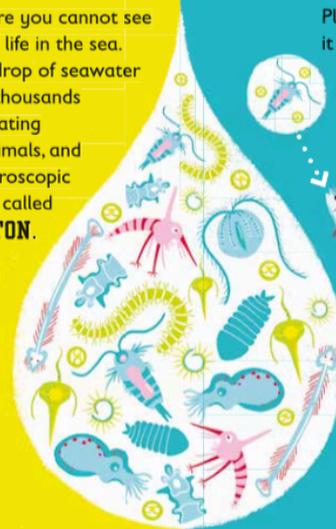
**MARINE PLANTS** make their own food by using energy from sunlight.



**MARINE ANIMALS** eat plants and other animals.



Even where you cannot see it, there is life in the sea. Just one drop of seawater contains thousands of tiny floating plants, animals, and other microscopic creatures called **PLANKTON**.

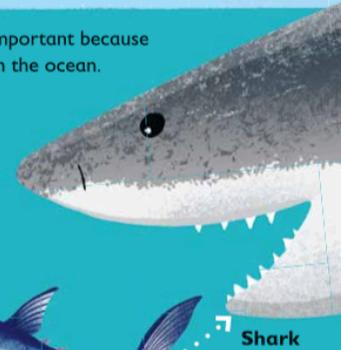


Plankton might be tiny, but it is very important because it is the base of every **FOOD CHAIN** in the ocean.

Lots of marine animals eat plankton.

Other bigger animals eat the plankton-eating animals.

Animals that eat other animals are called **PREDATORS** and the animals that predators eat are called **PREY**. The shark is the top predator in this food chain.



Shark

## WHAT DOES THE BOTTOM OF THE SEA LOOK LIKE?

Far from being flat, the sea floor is actually similar to the landscape we see above the waves. In the oceans, there are erupting volcanoes, deep trenches, and mountains taller than Mount Everest, the highest peak on land.

The sea is separated into four different zones:

**SUNLIT ZONE** – Many plants and sea creatures need warmth and light from the Sun to survive, so they live here, close to the surface.

**TWILIGHT ZONE** – Very little sunlight reaches down into water below 200m (650ft), so you won't find plants here. There are still plenty of animals, however, and many swim up to the sunlit zone at night to find food.

**MIDNIGHT ZONE** – Even though it is pitch black and cold, there are still fish and jellyfish living here, though fewer than in the zones above.

**THE ABYSS** – The deepest and darkest parts of the ocean are something of a mystery as few scientists have been able to explore water this deep. But some strange creatures have been found here.



There are more **VOLCANOES** under water than there are on land. When these volcanoes erupt, hot lava pours out.

After an underwater volcano has erupted, cold seawater cools the lava, which hardens into rocky lumps. These can be very big and form underwater **MOUNTAINS**.

Some underwater volcanoes erupt and create mountains so tall that they eventually become **ISLANDS** where plants and animals can live.

**TRENCHES** are deep valleys in the ocean floor. The deepest point in the ocean is the Mariana Trench which is 11km (7 miles) below sea level. It is so deep that Mount Everest could fit into it.

## WHY IS THE SEA IMPORTANT?

We spend most of our time on land but we are always connected to the sea. We wouldn't be here without it. This is because the oceans, and the creatures in them, help to create the air we breathe, the water we drink, the food we eat, and much more.

**THE SEA CREATES THE AIR WE BREATHE**  
Seaweed and plankton make over half of the oxygen that animals – including us – breathe in.

**THE SEA GIVES US FOOD**  
Fish are full of nutrients, like protein. They provide an important source of food for people all over the world.

**THE SEA CONTROLS OUR WEATHER**  
Seawater absorbs heat from the Sun. Ocean currents move this heat around the world, which affects the temperature in the air.

Ocean currents are like underwater winds that move water from one place to another.

**THE SEA GIVES US WATER**

The oceans play an important role in the world's water cycle. Without the sea, we wouldn't have rain or water to drink.

The Sun heats the sea and turns water into vapour. Vapour rises and makes rain clouds.

**THE SEA ABSORBS CARBON DIOXIDE**  
Carbon dioxide is a gas that animals breathe out. We also create carbon dioxide when we burn fossil fuels such as oil and coal. Burning fossil fuels makes electricity and powers cars, but too much of it in the air harms the environment. The ocean and marine plants help by absorbing carbon dioxide from the air.

**THE SEA SUPPORTS AN ENORMOUS VARIETY OF LIFE...**



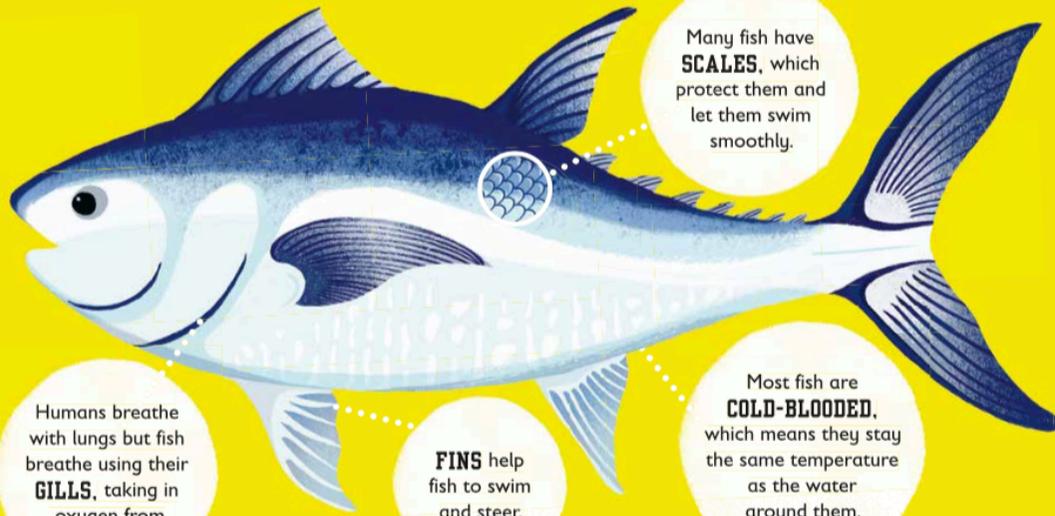
## WHAT LIVES BENEATH THE WAVES?

Life is everywhere in the sea – from the sunlit ocean surface to the darkest depths. This makes it a fascinating, exciting, and very important place.

Let's find out more about some of the creatures that make the sea their home.

## PLENTY OF FISH IN THE SEA

When you think of the sea, the first animal you picture is probably a **FISH** that might look like the one you can see here. But fish come in all sorts of shapes and sizes, and they have special features for living under water.



Many fish have **SCALES**, which protect them and let them swim smoothly.

Humans breathe with lungs but fish breathe using their **GILLS**, taking in oxygen from the water.

**FINS** help fish to swim and steer.

Most fish are **COLD-BLOODED**, which means they stay the same temperature as the water around them.

**THERE ARE MORE THAN 33,000 SPECIES (TYPES) OF FISH. WHILE MOST OF THEM HAVE GILLS, FINS, AND SCALES, THEY ARE ALL VERY DIFFERENT...**

### SOME FISH CAN FLY...



**FLYING FISH** use their wing-like fins to leap out of the ocean and glide through the air, helping them to escape from predators.

### SOME FISH CAN DANCE...



Male and female **SEAHORSE** couples dance together. Changing colour as they move, the couples swim side-by-side, linking tails and circling around each other.

### SOME FISH ARE FLAT...



The flat body of a **FLATFISH** allows it to bury itself in the sand. Its sandy colour keeps it hidden from hungry sharks.

### SOME FISH ARE LONG...



**GIANT OARFISH** grow to at least 10m (33ft) long. Before people knew what they were, oarfish were thought to be dangerous sea serpents.

### SOME FISH ARE SPIKY...



**PUFFERFISH** can fill their stomachs with water, making themselves too round and spiky for predators to swallow.

### AND SOME FISH ARE VERY BIG...

These fins belong to the biggest fish in the sea...

