

GeoScience (Geography and Science)

Home Learning

Summer 2 – Week 6 (wb 6th July 2020)

As part of our project on *Water*, we would like you to learn about **Oceans & Marine Life** (Marine=Sea)

We have split the ideas into five different sessions, but this is only a guide. Please feel free to adjust the sessions so that they fit into your household timetable.

We would love to see what you have been up to, so if you are able to take a photo or upload it to Google Classrooms, that would be great!

SESSION 1

There are **five oceans** that cover just over **70% of our planet**, and they are all connected together:

- the Atlantic Ocean
- the Pacific Ocean
- the Indian Ocean
- the Southern Ocean
- the Arctic Ocean

The nearest ocean to the UK is the Atlantic Ocean. It stretches from Europe to North and South America, and is the second largest of the five oceans.

Please watch this short video to find out a little more:

<https://www.bbc.co.uk/bitesize/topics/z849q6f/articles/zmqwscw>

What are ocean currents?

The water in the oceans is constantly moving in patterns called **currents**. Some currents flow quickly, while some move very slowly. As the currents flow around the planet, they move cold and warm water from one place to another, changing **climate** and **temperatures** all over the world. The UK would be much colder if it wasn't warmed by water that travels from the Caribbean - called the North Atlantic Drift.

The ocean currents also help move anything that floats in them. This can be sea creatures or ships, but unfortunately can also be rubbish that has been dumped carelessly by people. This rubbish finds its way around the world, pollutes the oceans and can be harmful to sea creatures. Some kinds of rubbish, such as plastic are eaten by sea creatures. This causes them lots of problems and can even kill them.

[We will learn more about this in next week.]

Watch this video to see more on oceans:

<https://www.bbc.co.uk/bitesize/topics/z849q6f/articles/zmqwscw>

Please scroll down the page for the second video 😊

You could now try the little quiz on the same page. How did you do? Let us know! 😊

SESSION 2

In the last session, we learnt about the different oceans of the world. Can you remember what they are called?

We would like you to label the oceans on the following map:

'The Five Oceans of the World' (in the Google Classroom folder)

If you would like an extra challenge, you could label the 'Ocean Challenge Sheet' using an atlas or research on the computer to help you.

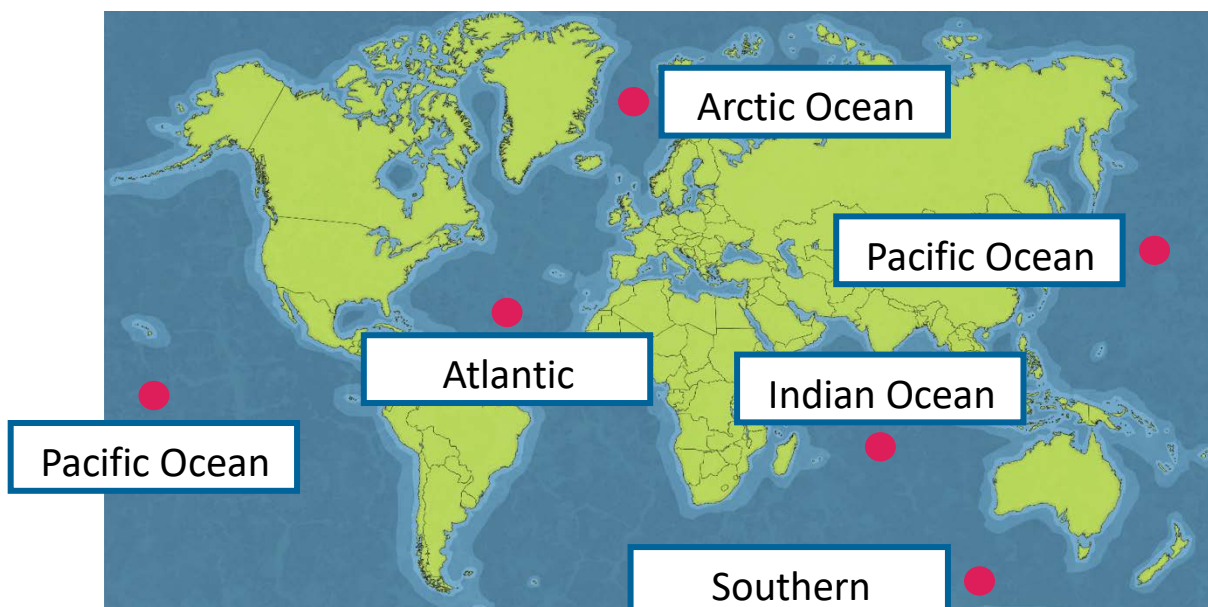
SESSION 3

In this session, we will learn about the different **layers of the ocean**.

Earth is referred to as 'The **Blue** Planet' because it looks blue from afar:

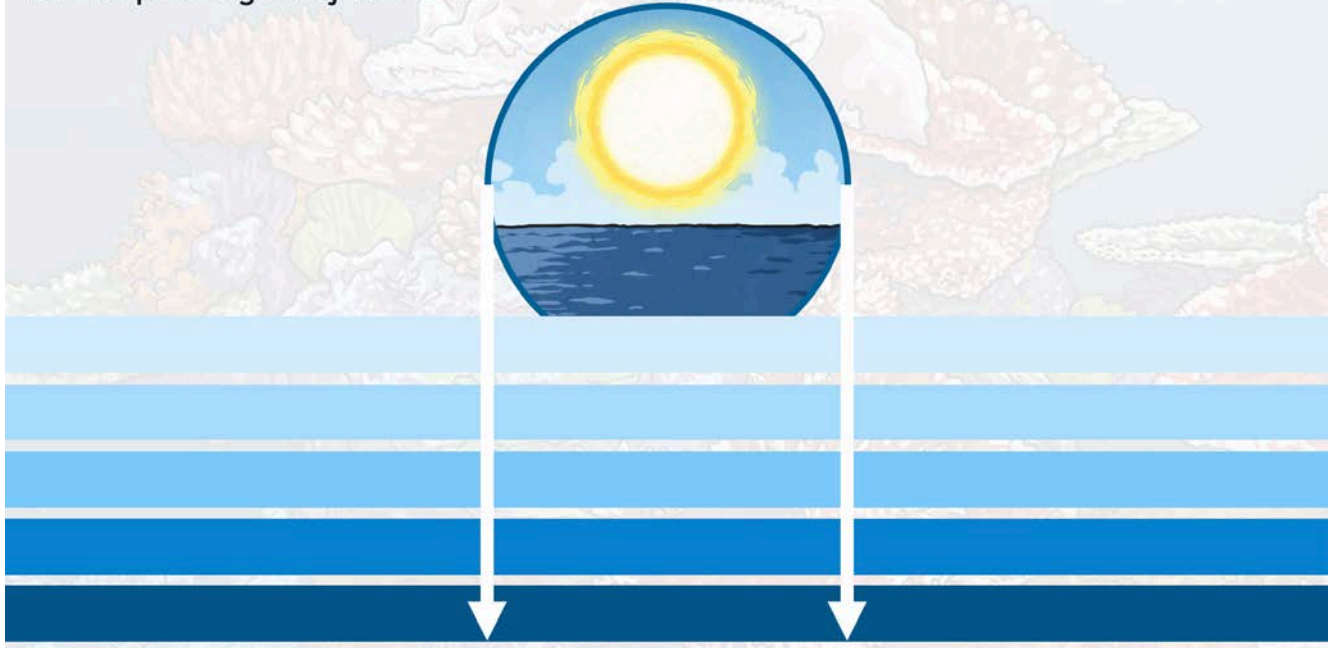
The Earth looks blue because 70% of its surface is covered by water.

There are five oceans that cover the world. Can you name them?



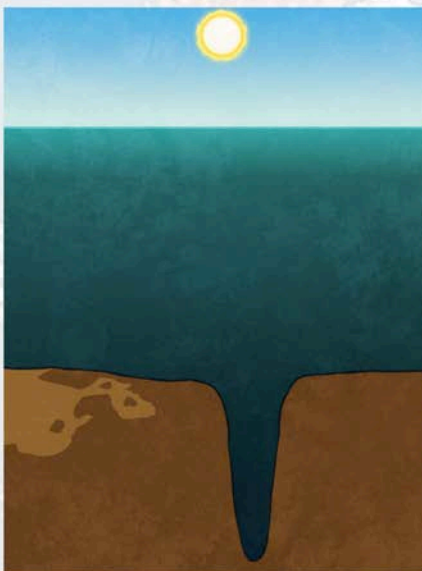
Sunlight

Sunlight shines on the oceans just like on the land. However, light does not reach the deepest layers of the ocean.



The Layers

The depth of the oceans are split into layers. Each layer has its own specific characteristics.



The Sunlight Zone (0m-200m)

The Twilight Zone (200m-1000m)

The Midnight Zone (1000m-4000m)

The Lower Midnight Zone (4000m-6000m)

The Trenches (Lower than 6000m)

You can learn more about the different layers by looking at the Powerpoint: *The Ocean Layers.ppt* (saved on in the Google Classroom folder)

SESSION 4

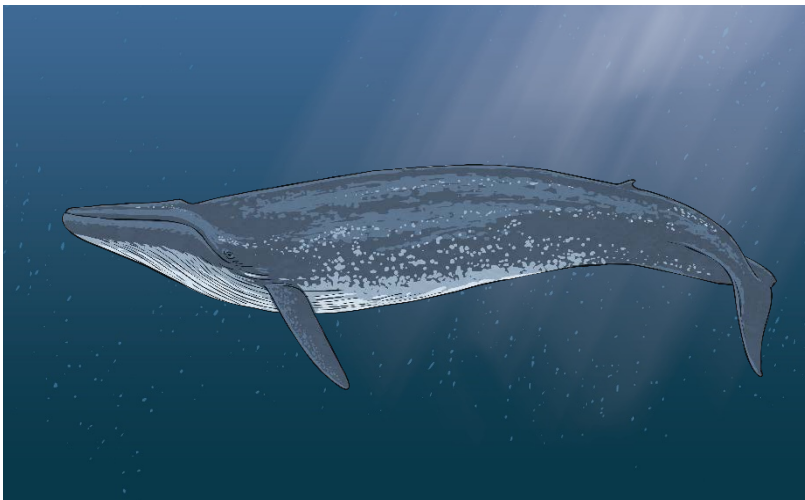
In the last session, we discovered that there are many layers in our oceans.

In the top layer of the ocean, **The Sunlight Zone**, (0-200metres), you will find most of the marine creatures and plant life. This is because it receives the most sunlight. Most types of fish and animals, including dolphins, turtles, rays, seals, coral and jellyfish, live in this zone.

As you go deeper into the ocean...down...down...down, you reach the next layer (200-1000metres). This is called **The Twilight Zone** and very little sunshine reaches this far down.

No plants live in this layer because there's not enough sunlight for them to survive (through photosynthesis).

Animals such as whales, shrimps, swordfish, hatchet fish and octopuses live in this zone.



You can also find **sponges**. These are living creatures!

☺ **Fun Fact:** people often think that sponges are plants, but they are actually sessile (non-moving) animals! ☺

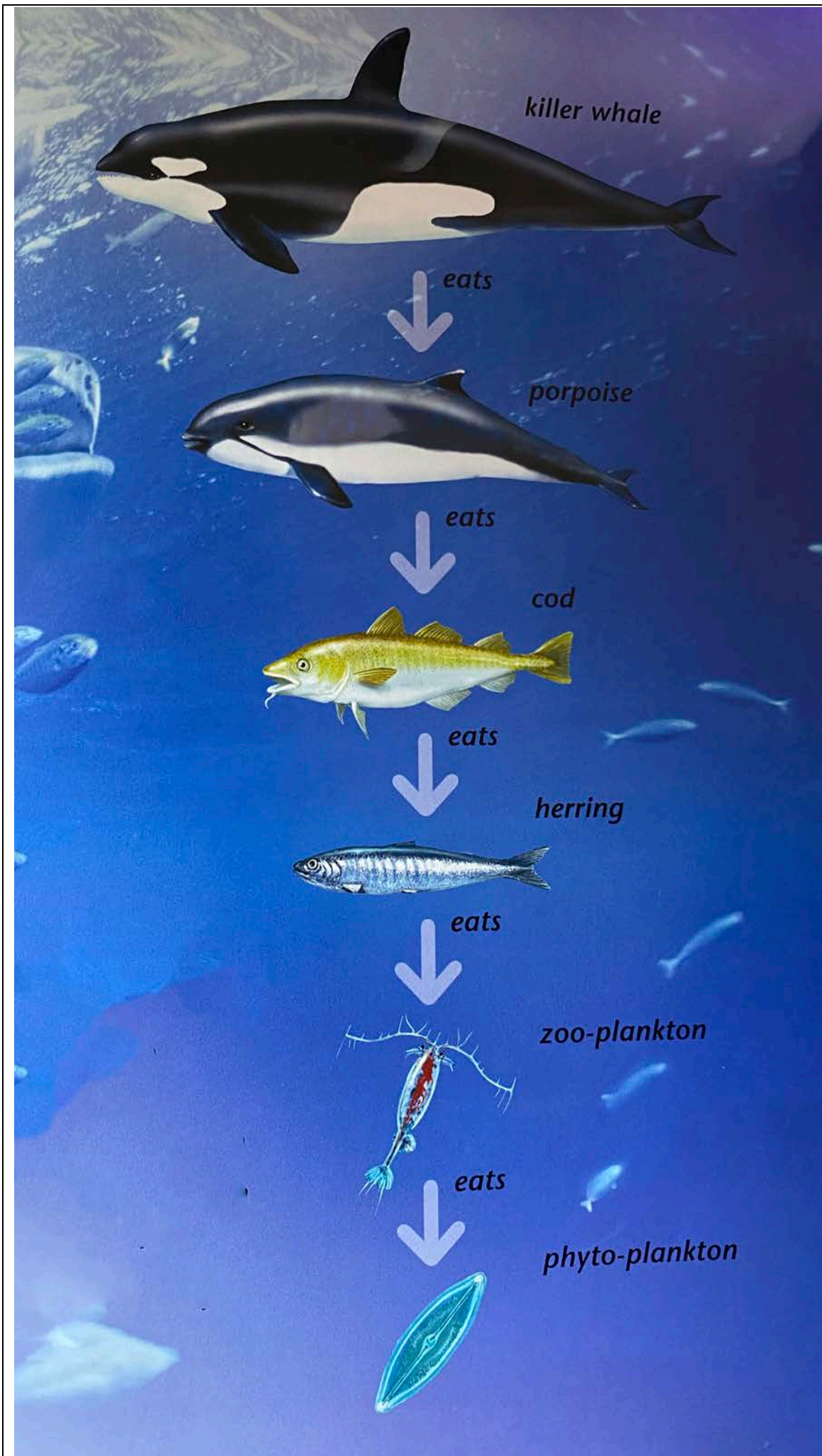
SESSION 5

Who eats whom?

Ocean life, just like on land, depends on plants. Animals that eat plants are called **herbivores**. The herbivores are eaten by carnivores, or meat eaters. This is called a **food chain**.

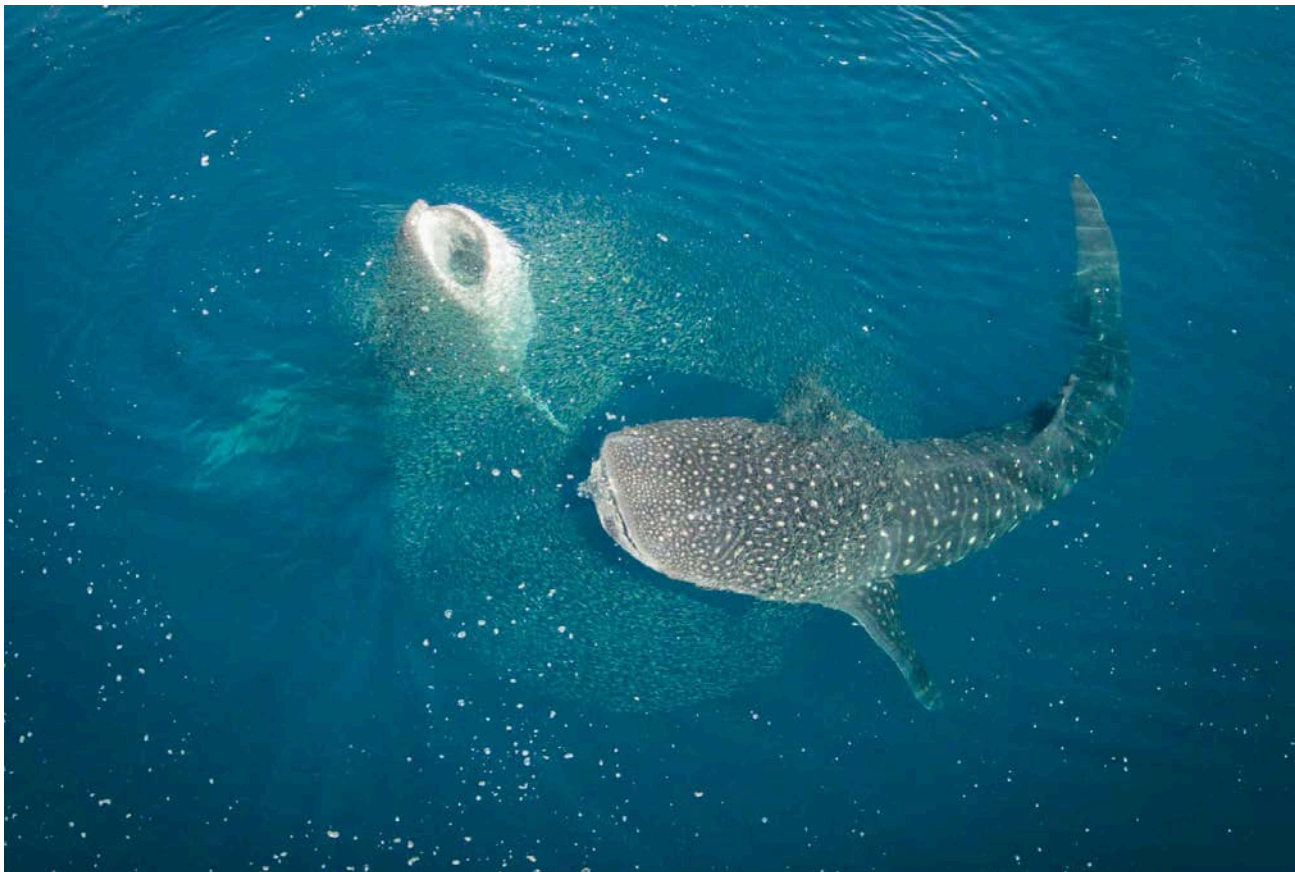
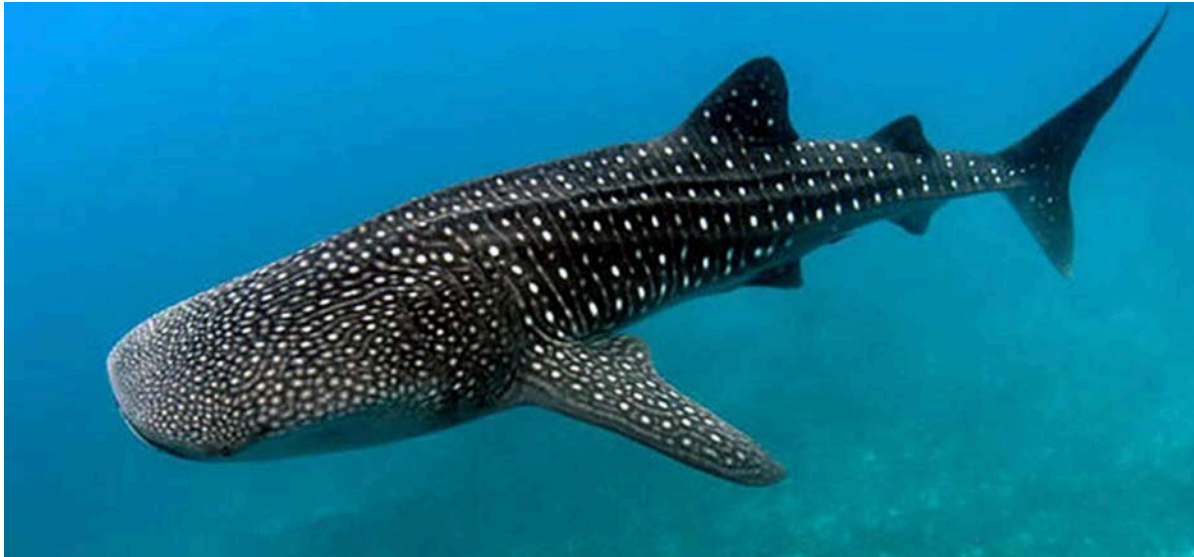
Big mouth, long chain!

Killer whales need big food – they cannot eat the tiny plankton. There are five links in the food chain between killer whales and the smallest plants in the ocean, phyto-plankton:



Big mouth, short chain!

The whale shark is the world's biggest fish (up to 15 metres long)! Its food chain is very short because it feeds on the smallest animals and plants in the sea – plankton.



Discover some more beautiful photos of whale sharks here:

<https://www.theguardian.com/environment/gallery/2018/aug/09/whale-sharks-feeding-in-the-western-indian-ocean-in-pictures>

Can you draw your own ocean food chain? We'd love to see it! 😊