

Subject links:

Geography, Design Technology,
Citizenship, Health and wellbeing

Curriculum links:

UK wildlife, Natural resources, Food, Human activity,
Sustainability, Environmental responsibility

Ocean Literacy Principles:

6. The ocean and humans are inextricably interconnected.

Learning Objectives:

- To recognise the characteristics of a fish
- To learn more about where seafood comes from and different types of seafood
- To begin to understand what sustainable means

Resources provided:

- Fisheries Fact File
- Fish ecology
- Fish template
- Is it a fish? – worksheet
- Is it a fish? – answer sheet
- From fish to food – worksheet
- Good Fish Guide
- Curriculum links

What is seafood?

Sustainability Goals:



Step 1

Background

As an island nation, fishing is an important industry in the UK. Fish are a key part of many people's diets, but some fish stocks are under great pressure. Overfishing means catching fish faster than they can reproduce. It is a significant and growing threat to marine biodiversity, and many fish stocks are in a state of serious decline. Overfishing decreases fish populations until there are so few fish that fishers can't make a living and fish populations find it hard to recover. See the [Fisheries Fact File](#) for more information.

Step 2

Set the Scene

5 minutes – What is a fish?

Use the [fish ecology sheet](#) to discuss features of a fish (i.e. live in water, have scales, breathe through gills). Run through names of various body parts such as fins, gills, and tail. Use the [blank fish template](#) to test if students can remember the names of different body parts.

Step 3

Activities

Activity 1: 10 minutes – What is seafood?

As a class, discuss the types of food we get from the sea. Encourage students to think about foods they have eaten or seen others eating, perhaps on holiday or in a restaurant. Create a quick brainstorm of their initial ideas.

Step 3

Activities

Activity 2: 10–15 minutes – Grouping seafood

In small groups, students should examine images and features of the creatures on the [Is it a fish? worksheet](#) and group into fish/not fish. Students should focus on number of fins, body shape and colour. This activity will bring together elements from Set the Scene and Activity 1. Check students' work by using the [answer sheet](#) and identify any species that students aren't familiar with.

Activity 3: 5–10 minutes – From fish to food

Explain that we eat some fish more than others. Hand out the [From fish to food](#) matching game to pairs or small groups. The game will highlight students' knowledge of the food they eat and where it comes from. Discuss how difficult or easy the game was.

Activity 4: 10 minutes – What fish do you eat?

Find out what type of fish is served in your school's canteen. If you don't serve fish, you could do a class survey of the types of fish that staff eat and what the most common fish is. As a class, go online to use our [Good Fish Guide](#) to check the sustainability ratings of your canteen's most commonly-eaten fish.

Step 4

Extend

30 minutes – Spreading sustainability

Explain the term 'sustainable' and why it's important that we eat sustainable seafood. A simple definition is 'enough, for all, forever'. For example, ensuring we only take *enough* seafood to make sure there's enough food for humans, but also for all animals, especially predatory species like sharks. Most importantly, we want to ensure there are enough fish left in the ocean for the future. Explain that there are 5 types of seafood that are most commonly eaten in the UK – cod, haddock, salmon, tuna and prawn – and that it's important we don't overfish one species. Older years could have a discussion about how they could tell the school what they've learnt. You could hold an assembly or draw a poster for the school newsletter to explain the types of seafood that we eat, why it's important to eat sustainably, and how we can find out what sustainable seafood is.

Step 5

Reflect

Can you name the main characteristics of a fish? Can you name some examples of seafood? What does sustainable mean? Why is it important to eat sustainable seafood?

Step 6

Follow up

Complete the [Let's go fishing](#) lesson to learn more about how fish are caught. Explore animals' shared characteristics in our [Grouping animals](#) lessons.

Fisheries Fact File

Fish are not only important for the overall health of marine ecosystems, but also provide protein and livelihoods for billions of people. Globally, fisheries supply over 3.3 billion people with at least 20% of their average animal protein intake. (1)



Threats from unsustainable fishing

Overfishing

Overfishing means catching fish faster than they can reproduce. Due to overfishing, many fish stocks are in a state of serious decline. Overfishing pushes the fish population into smaller and smaller numbers, until there are so few fish that fishers can't make a living, and fish populations find it harder to grow again. Approximately 90% of large predatory fish such as tuna, swordfish & sharks have been lost. (2)

Damage to marine habitats

A wide range of fishing methods are used throughout the world, with different methods used to catch different types of fish. Some of these methods – like bottom trawling and dredging – involve scraping heavy machinery along the seafloor, which can be very destructive to marine habitats. Less than 2.5% of UK waters are closed to bottom trawling. (3)

Bycatch

During fishing, animals accidentally caught along with the 'target species' are known as bycatch. These animals can include dolphins, turtles, sharks and whales, as well as young fish deemed too small. In many parts of the world, bycatch are usually thrown back into the sea either dead or dying. In order to reduce the number of fish harmed in this process, in the UK it is illegal to throw some species of fish back into the sea. Approximately 10% of fish caught worldwide is bycatch. (4)



Fishing trawler ©
NarissaFotoSS
via Shutterstock



Species caught as
bycatch © Ivan Sarenas
via Shutterstock

1. Food and Agriculture Organisation of the UN 2020
2. Myers and Worm 2003

Fisheries Fact File



Sustainable fishing

We need to end overfishing in order to maintain healthy marine ecosystems, and to sustain livelihoods and food security into the future.

There are several ways of managing fishing practices:

- Quotas based on scientific evidence on how many and what type of fish can be caught can help limit overfishing
- The improvement of fishing gear can help reduce bycatch by increasing the selectivity of the fishing activity
- Limiting damaging fishing practices in sensitive and diverse areas can help reduce damage to the overall environment
- No take zones or Highly Protected Marine Areas where no fishing activity is allowed, will allow fish populations to recover and will help protect and restore the marine environment
- Managing fishing activities to ensure everyone is sticking to the rules is tricky in a large ocean environment, which means technology plays a big part in fisheries management

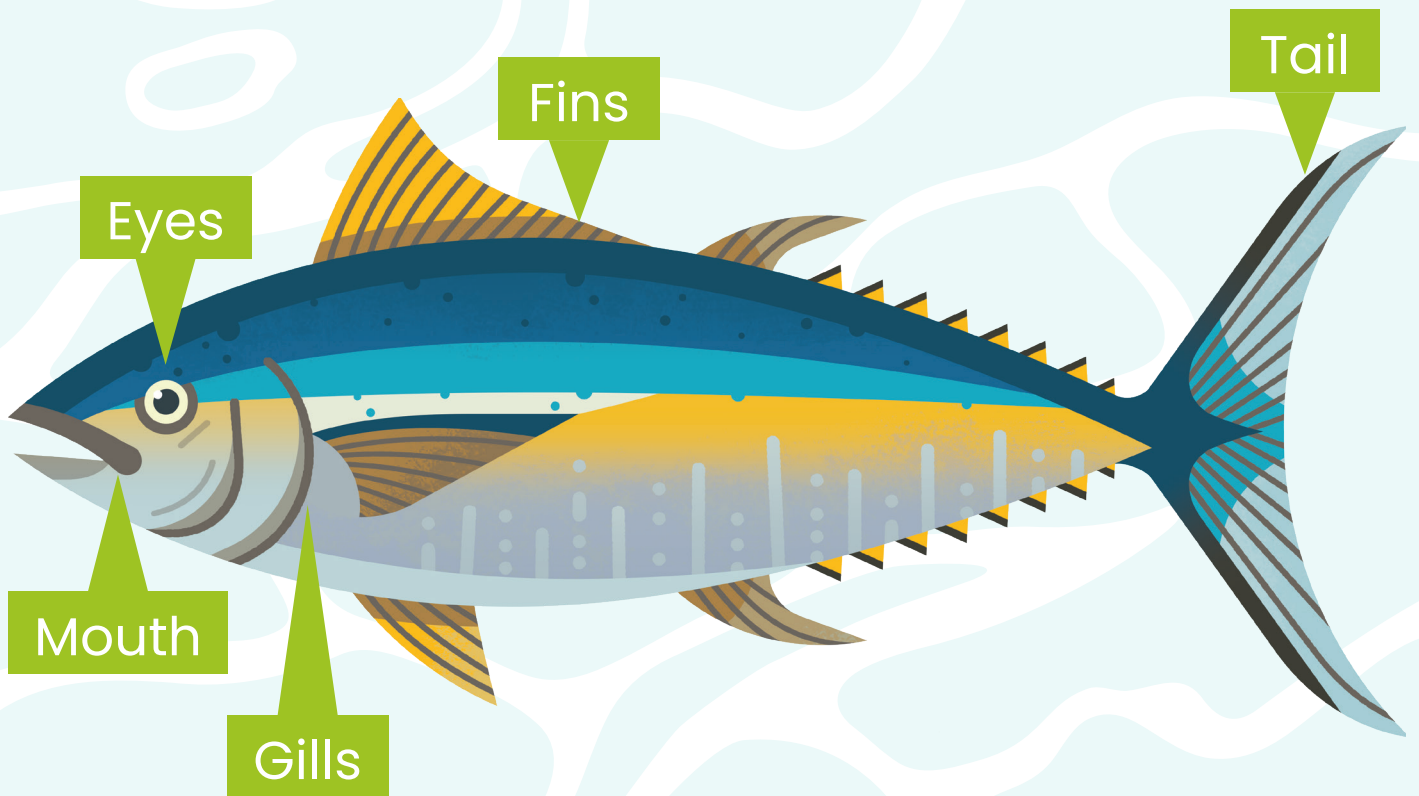


Be a responsible consumer

Consumer choice can influence overfishing. We tend to eat the same key species, which puts a lot of pressure on their stocks. Many people are unaware of where the fish they eat comes from or how it's caught, and when this information *is* included on food packaging, it's often hard to understand what it actually means.

Increasing awareness amongst consumers is important in achieving sustainable fishing. **Our [Good Fish Guide](#) supports consumers in selecting sustainable fish to eat.**

Fish ecology

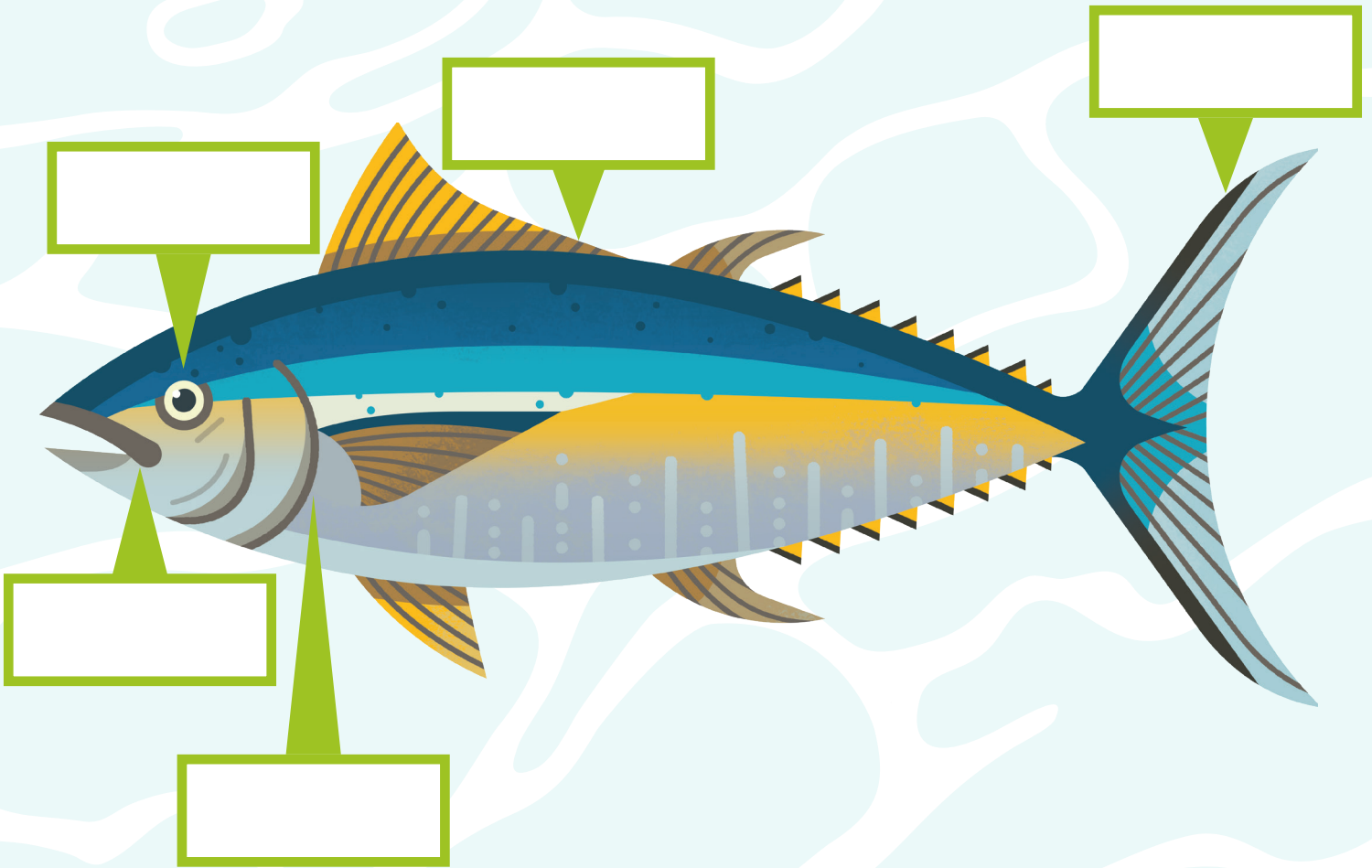


What makes a fish?

- Live in water
- Have gills
- Lay eggs
- Have scales

Fish ecology

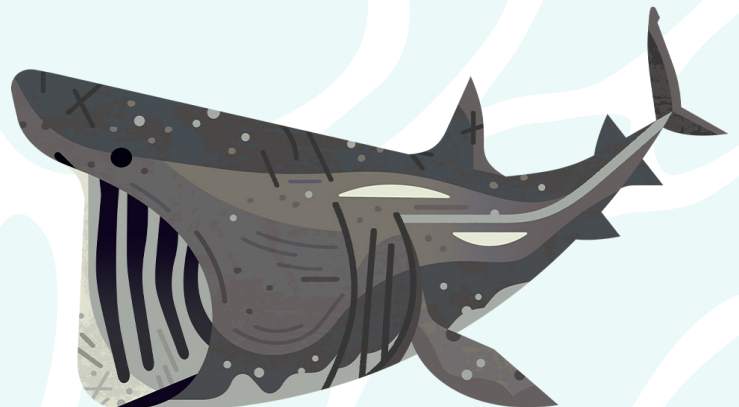
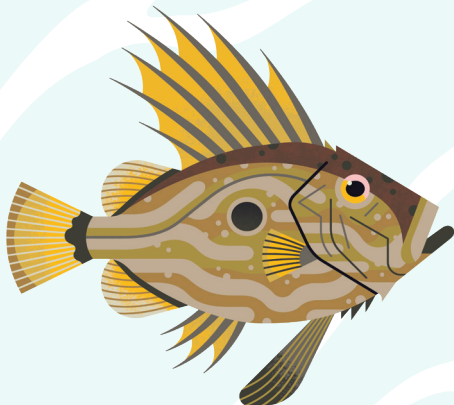
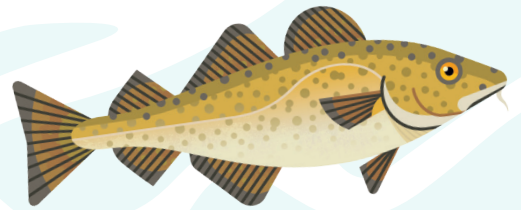
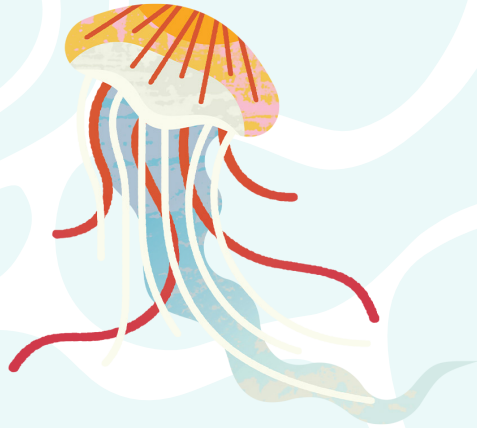
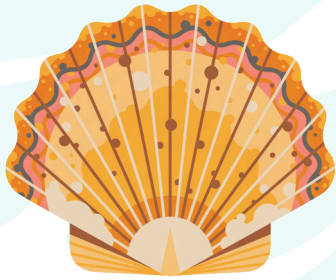
Name:



What makes a fish?

Is it a fish?

Name:



Is it a fish?

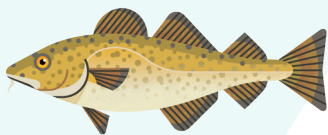
Fish



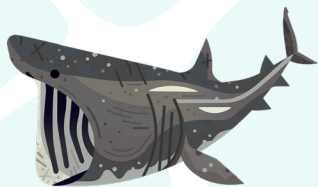
Eel



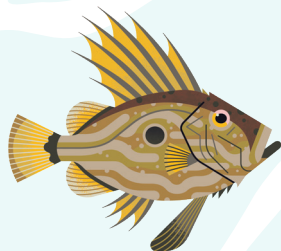
Salmon



Cod

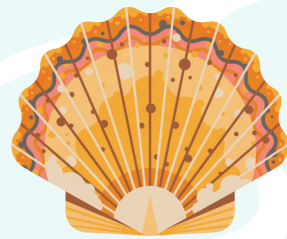


Basking shark



John Dory

Not a fish



Scallop



Crab



Jellyfish



Dolphin

From Fish to Food

Name: _____

Can you match the fish to the foods you buy in the shops?

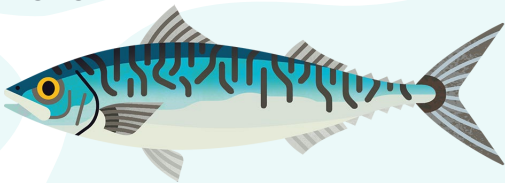
Cod



Haddock



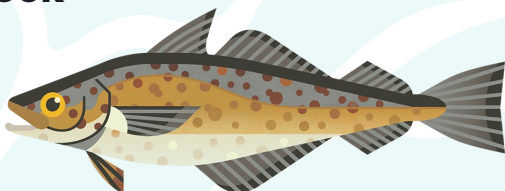
Mackerel



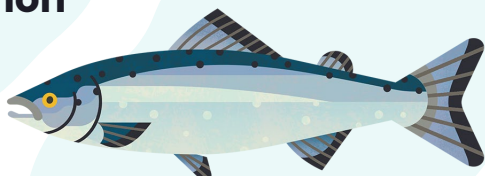
Tuna



Pollock



Salmon



Fish fingers



Fish & chips



Canned fish



Fish cakes



Next time why not have pollock instead of cod fish fingers?



Curriculum links

England

Science

- Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.
- Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).
- Identify and name a variety of plants and animals in their habitats.

Design technology

- Understand where food comes from.

Citizenship

- Responsibility for themselves and their environment.

Wales

Humanities

- I am beginning to recognise the effects that I have on the natural world.
- I can describe how people and the natural world may impact on each other.
- I am beginning to appreciate and care for living things and my own environment.
- Within Geography - Provide a rich context for exploring the issues of sustainability and food security.

Science and technology

- I can recognise that what I do, and the things I use, can have an impact on my environment and on living things.
- I can explore relationships between living things, their habitats and their life cycles.

Health and wellbeing

- I am beginning to make connections between my diet and my physical health and well-being.

Scotland

Social sciences

- I explore and appreciate the wonder of nature within different environments and have played a part in caring for the environment.
- I can consider ways of looking after my school or community and can encourage others to care for their environment.

Sciences

- I have observed living things in the environment over time and am becoming aware of how they depend on each other.
- I can distinguish between living and non-living things. I can sort living things into groups and explain my decisions.
- I can talk about science stories to develop my understanding of science and the world around me

Health and wellbeing

- I explore and discover where foods come from as I choose, prepare and taste different foods.