



MARINE
CONSERVATION
SOCIETY

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What do we eat and where does it come from?

Sustainability Goals:



Subject links:

Geography, Design Technology,
Maths, Citizenship

Ages 7-11

Curriculum links:

Natural resources, Food, Human activity, Data,
Statistics, Sustainability, Environmental responsibility

Ocean Literacy Principles:

6. The ocean and humans are inextricably interconnected.

Learning Objectives:

- To learn more about where food comes from
- To begin to understand what sustainable food means, and provide examples of what makes food sustainable
- To collate, analyse and present data

Resources Provided:

- [Fisheries Fact File](#)
- [Seafood Shopping List](#)
- [From Fish to Food](#)
- [Fishy Figures](#)
- [Good Fish Guide](#)

Extra resource required

Computers or tablets

Step 1

Background

'Overfishing' means catching fish faster than they can reproduce. Overfishing 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 [fact file](#) for more information. Before the lesson, students should complete the [seafood shopping list](#) by finding 5 items in the supermarket that come from the sea and recording the name and where they come from.

Step 2

Set the Scene

15 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 ideas. Students should then play the [from fish to food](#) game. Discuss how hard or easy this was. The game will highlight students' knowledge of the food they eat and where it comes from. In pairs, students should discuss what sustainable means, and what sustainable food means. Discuss answers as a class.

Step 3

Activities

Activity 1: 30–45 minutes – Plotting the Top 5

As a class, combine results from the [shopping list](#) homework activity by creating a large table on your whiteboard. Analyse your results to find the 5 most common types of seafood found by your class, and how many people recorded them. Students should present the results of the survey by creating a pictograph or chart.

Compare your class's top 5 seafoods to the 5 most popular fish in the UK: salmon, cod, haddock, prawns and canned tuna. If time allows, you could also find the most common locations too.

Encourage groups to draw conclusions regarding the implications of their findings. Students should suggest problems created when people favour the same key species (e.g. biodiversity, fish stocks, sustainability).

Activity 2: 10 minutes – Good Fish Guide

In pairs or as a class, go online to use our [Good Fish Guide](#) to check the sustainability ratings of a fish from your top 5, and record the information on the [fishy figures](#) worksheet.

Step 4

Extend

30 minutes – Spreading sustainability

Plan a way of advertising your results and research in order to inform the school community, including your school canteen. You could hold an assembly, write an article for the school newsletter, or post on the school website. Consider how you could use your survey results to make a difference.

Step 5

Reflect

5 minutes

Ask students to consider the question, 'why is it important to eat sustainable food?' Emphasise that sustainability depends on the area the fish was caught and the way it was caught.

Step 6

Follow up

Complete the lesson, [Let's go fishing](#), to learn more about how fish are caught. Learn about farming seafood in the UK in our lesson, [Can you really farm fish?](#)

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)



Fishing trawler © NarissaFotoSS via Shutterstock

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)



Species caught as bycatch © Ivan Sarenas via Shutterstock

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)

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.

Find 5 seafood items in the supermarket.

Record the name and the country
they came from



Name:

Seafood Shopping List



Country of Origin

Seafood

1

2

3

4

5

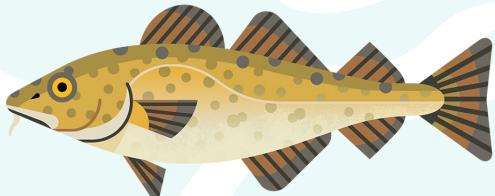
Remember to take your shopping list
back to school so you can use it in class!

From Fish to Food

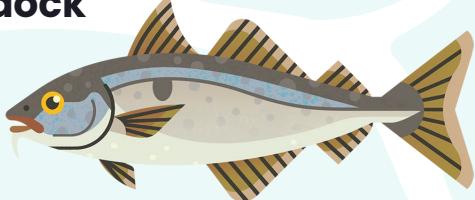
Can you match the fish to the foods you buy in the shops?

Name:

Cod



Haddock



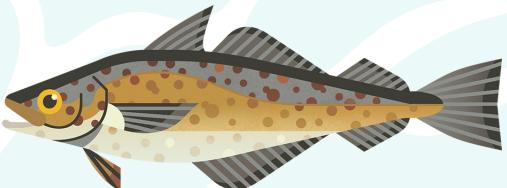
Mackerel



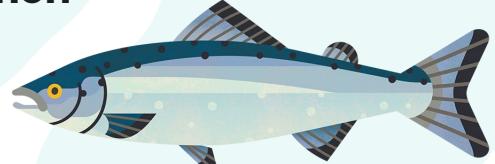
Tuna



Pollock



Salmon



Fish fingers



Fish & chips



Canned fish



Fish cakes



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



Name: _____

Fishy Figures

1. What are the top 5 most common supermarket items you found as a class?

2. How does your list compare to the top 5 most popular fish in the UK: Salmon, haddock, prawns, cod and canned tuna?

3a. From your class survey, what are the most common locations seafood are caught from?



3b. How could this information affect the number of fish and the sustainability of these fish?

4. What Good Fish Guide score does your chosen seafood get?



4b. Why does it get this score?

