



Teacher resources

WHY DO WE NEED THE OCEAN?



Lesson plan



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LESSON:

WHY DO WE NEED THE OCEAN?

In this 25-40 minute lesson for learners age 10+ in geography or science, learners can find out why we need the ocean and explore some of the pressures on it from fishing.

Learning objectives

- Learners discuss why the ocean is important, and the different ways in which we use it and need it
- Learners watch a film that introduces ocean sustainability and some of the threats to our oceans from overfishing
- Learners use an interactive map to draw conclusions about global fishing patterns

You will need

- Access to the [Shorthand story](https://dad-fishes-for-the-future.msc.org/) - <https://dad-fishes-for-the-future.msc.org/> – How my dad fishes for the future
- Access to the film [My dad the fisherman, or two clips](https://www.msc.org/for-teachers/teach-learn-about-ocean-sustainability/film-and-clips) - <https://www.msc.org/for-teachers/teach-learn-about-ocean-sustainability/film-and-clips>: The life of a fisherman, and The most traded food in the world!
- Internet access for learners to complete an online exercise as a class or in pairs (optional)
- It would be useful to look at <https://globalfishingwatch.org/map/>

Key questions

- Why do we need the ocean?
- What challenges is the ocean facing?
- What types of fishing cause challenges for the ocean?

- What is the difference in fishing pressure between the UK and the Arctic? Why?
- Which parts of the world have the highest fishing pressure? Why?
- What do protected areas of the ocean mean for fishing?
- What can we all do to protect the ocean?

Key terms

Ocean sustainability, fishing pressure, fishing fleet, fishing grounds, overfishing, illegal fishing, destructive fishing, fish stocks, livelihoods, protected areas

Starter (3-10 mins)

- Start by displaying the question on the board – **Why do we need the ocean?** - (you can use the Shorthand to do this if you wish) and ask learners for their views.

Have they ever visited the seaside?

What can they see happening when they go there?

If you have time, you could sort their answers into environmental, economic and social factors such as:

- **Environmental:** the ocean helps regulate the earth's temperature through ocean currents transporting warm water to colder parts of the world; the ocean absorbs carbon dioxide which would otherwise heat up the earth; the oceans are home to a huge number of different species of animals and plants; the ocean produces oxygen for us to breathe
- **Economic:** our fishing industry involves millions of people; tourism companies make money offering cruises or activities; we transport many of the foods and products we



use every day by ship across the world

- **Social:** people catch fish for their families; we do sports like swimming and sailing; we visit the ocean to have fun

Main activity (20-25 mins)

Display the first part of the **Shorthand story**, introducing the girl and her dad, and **read** together. Show the **14-minute film** “What is sustainable fishing?” and then finish reading the first part of the Shorthand, which focuses on the significance of our ocean to life and our survival.

If you don't have time to watch the whole film, **show two clips:** 1. The life of a fisherman, and 2. The most traded food in the world! Then scroll through the rest of the introduction, which finishes with exercise 1, Tracking the Global Fishing Fleet.

To complete the exercise, learners will ideally need access to the Shorthand story in small groups, navigating around to find the answers to the questions in the story themselves. However, it would also work to complete it as a class, asking learners some questions about it while they look at it together:

How does the fishing pressure (the number of boats out catching fish) compare between the UK and the Arctic? Why might this be the case?

Which parts of the world have the most fishing pressure? Why might this be?

Some parts of the ocean have been designated as protected areas. What would this mean for fishing? Can you find some of those areas using the map?

Plenary (2-5 mins)

At the end of the film, the narrator asks us what we can all do to help protect the oceans. Ask learners what they think about this question:

Do you agree with it? Do you think it is everyone's responsibility to protect the ocean? Do you think there's anything that you can do?

Learners could share their answers with a partner or write them on a note or the board, to capture everyone's responses.

Extension or homework idea

The film and Shorthand story introduce learners to some facts about the ocean, some of which are designed as infographics. How about the others? Ask learners to **choose one fact they found out that they found interesting or surprising during the lesson, and make a graphic or drawing that would show others that fact.** The graphics could be used to create a display, and to start a discussion about how we use visuals to help convey meaning and make science more accessible and communicable.

Answers to shorthand exercise: Tracking the global fishing fleet

How does the fishing pressure compare between the UK and the Arctic?

- Fishing pressure is higher (there are more dots) around the UK, compared to the Arctic Ocean, North of Norway.

This is for a number of reasons:

- It would take fishers a lot longer (and a lot more fuel) to reach the Arctic than to reach 'inshore' fishing grounds around the UK, such as those in the North Sea and the English Channel.
- Such trips would take several weeks and require larger boats (a distance water fishing fleet) with sleeping quarters for fishers and large amounts of space onboard to store the



catch and transport it back to port.

- Ice sheets cover the Arctic Ocean for large parts of the year, making them inaccessible to fishing.
- Even though global warming is causing some of these vast ice sheets to melt, commercial fishing has been banned across large parts of the Arctic Ocean as a preventative measure. This is because we do not yet know enough about the health of fish stocks living across the vast area, and what level of fishing would be sustainable.
- The ban will last until at least 2034. During this time, researchers will conduct critical research to find out more about fish stocks in the Arctic.

