

Sea Savers

Preventing Plastic Pollution

KS1 and KS2
educator
guidance



Session overview

This lesson helps pupils learn how plastic pollution affects the ocean and sea life, and how it can be prevented. Through the activities in this session, pupils will be able to recognise the effect of plastic pollution on sea life, understand some of the causes of plastic pollution in the ocean, and identify what they can do to help prevent it.

These activities have been designed for both KS1 and KS2 pupils, however we have included guidance in this document on how they can be tailored and delivered for different age groups and ability levels. The accompanying lesson slides can be displayed to the class while delivering the lesson.

Key learning outcomes

On **slide 2** you will find the key learning outcomes. By the end of this lesson, pupils will be able to:

- ★ List key facts about the issue of plastic pollution in the ocean
- ★ Discuss how plastic pollution has occurred, and what affect this might have on sea life
- ★ Suggest positive actions to help prevent plastic pollution now and in the future



Contents

Activity	Time
Introduction	5 mins
Task one: What is made from plastic, and what is plastic pollution?	20 mins
Task two: How did that get there?	20 mins
Task three: What can we do?	20 mins
Extension	1 hour

Introduction

Start the session by asking pupils the below questions, also displayed on **slide 3**, to gauge their existing understanding of plastic pollution and why it is an issue. If pupils are unable to answer some of these questions, you can come back to them at the end of the session.

- ★ Have you heard of ocean plastic pollution? What have you heard about it?
- ★ We probably use items made from plastic every day — what kinds of items made from plastic can you see right now?
- ★ Why is the human use of plastic a problem for sea life?
- ★ What can be done about it?

These questions can be delivered as a class discussion, inviting pupils to volunteer their answers, or as an independent task where pupils write down their thoughts.

Task one: What is made from plastic, and what is plastic pollution?

Plastic in everyday life

Explain to pupils that plastic is a flexible and convenient material, which means it is commonly used to create everyday items, such as packaging and water bottles. However, some plastics can take up to 450 years to decompose, or break down, meaning they stick around in the environment for a long time. These plastics can injure, or even poison wildlife.

Display the list of items on **slide 4** and ask pupils to identify which items are made from plastic:

- ★ Shampoo bottle
- ★ Book
- ★ Traffic cone
- ★ Canvas bag
- ★ Bin bags
- ★ Water bottles
- ★ Tweezers
- ★ Hair brush
- ★ Tupperware containers

The answers are revealed on **slide 5**.



If you are working with older or more advanced pupils, ask them if they know what single-use plastics are. Explain that single-use plastic products are only used once, or for a short period of time, before being thrown away. Single-use plastics are more likely to end up in the ocean than reusable options.

Ask pupils if they can identify any single-use plastics from this list. These include shampoo bottles, bin bags and water bottles.

You can explain to older or more advanced students that microplastics are also harmful to our oceans. Microplastics are small particles of plastic with a diameter of less than 5mm. Most of the microplastic waste in the environment is made up of fragments from larger pieces of litter such as plastic bags, bottles or packaging.

Fact match-up

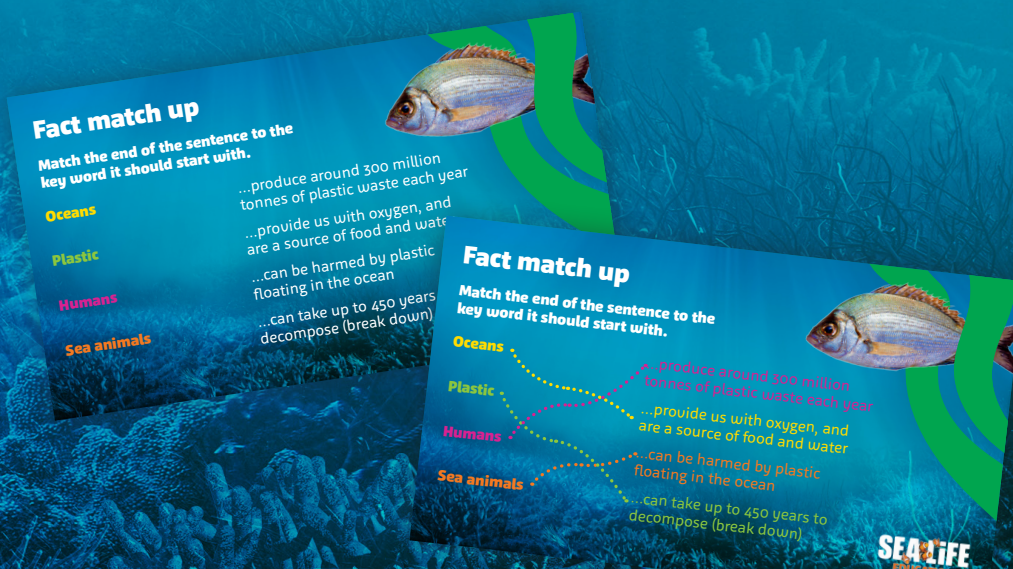
This activity helps pupils see the link between harmful plastics, the ocean, and sea life creatures. **Slide 6** shows words that are the start of some key facts, but the rest of the sentences are in random order. Ask pupils to match the end of the sentence to the key word.

The correctly matched up sentences are below and displayed on **slide 7**:

- ★ Oceans... provide us with oxygen, and is a source of food and water
- ★ Plastic... can take up to 450 years to decompose (break down)
- ★ Humans... produce around 300 million tonnes of plastic waste each year*
- ★ Sea animals... can be harmed by plastic floating in the ocean

This task can be completed as a class, or as an independent task where pupils write down their answers.

*<https://www.unep.org/interactive/beat-plastic-pollution/>



Task two: How did that get there?

This creative task gets pupils to explore some of the ways that plastic ends up polluting the ocean. Display **slide 8** which shows images of plastic pollution in the ocean, rockpools and on beaches. Ask pupils to pick an image and tell the story of how the plastic may have got there. Ideas may include people littering after a picnic, companies dumping waste into the sea, plastic products falling off of shipping containers, or something else!

If you are working with an older or more advanced group, they could tell their story through a piece of creative writing.

Younger or less advanced students could tell their story as a role play, or by drawing a story board.

After they have created their stories, ask pupils what they think might happen after the plastic has been left, and how it might affect sea life if the item stays there. For example, a sea creature like a crab might get caught up in it, or alternatively an ocean clean up crew could come and remove it.

Task three: What can we do?

Get your students thinking about how the simple choices they make could affect the amount of harmful plastic pollution in the ocean. **Slides 9-16** outline different scenarios and potential actions someone could take to reduce the amount of plastic they are using. Ask pupils to decide which option will cause the least amount of plastic pollution in the environment. The correct answers are as follows and displayed on the slide following on from each scenario:

You are at the supermarket choosing a snack for your packed lunch, what do you choose?

- ★ Individually wrapped fruit, such as slices of apple in a plastic box
- ★ A piece of unwrapped fruit, such as an apple
- ★ A large bag of apples to last the week

You are at a clothes store purchasing a new jumper. The store assistant asks if you would like to buy a 10p plastic bag, what do you do?

- ★ Say no, and put the jumper straight into your backpack
- ★ Buy the 10p bag and throw it out as soon as you get home
- ★ Buy the 10p bag but keep and reuse it next time you go shopping

How did that get there?

Pick an image and create a story of how the plastic may have got there



What can we do?

Which options will cause the least amount of plastic pollution in the environment?
You are at the supermarket choosing a snack for your packed lunch, what do you choose?

Individually wrapped fruit, such as slices of apple in a plastic box

Piece of unwrapped fruit, such as an apple

Large bag of apples to last the week



You're about to go out for a long walk with friends and think you might get thirsty along the way, what do you do?

- ★ Buy a plastic bottle of water from a shop half way through your walk
- ★ Fill up your reusable aluminium water bottle before you go so you have plenty of water
- ★ Fill up an old plastic bottle before you leave

You are making a sandwich to take to school in your packed lunch tomorrow, what do you bring it in?

- ★ Wrap it up in clingfilm and put it in your bag
- ★ Put it in a reusable plastic container
- ★ Put it in a reusable container made from another material such as bamboo or metal

If you are working with an older or more advanced group, ask them to rank the actions 1-3 based on what will cause the least amount of plastic pollution in the environment.

For example, you are at the supermarket choosing a snack for your packed lunch, what do you choose?

1. Individually wrapped fruit, such as slices of apple in a plastic box (3)
2. A piece of unwrapped fruit, such as an apple (1)
3. A large bag of apples to last the week (2)

Display **slide 17** and explain to pupils that if they want to protect the ocean from plastic pollution, there are four simple things they can start by doing:

1. Pick up litter
2. Don't use plastic bags
3. Look for less packaging
4. Avoid toiletries with microbeads

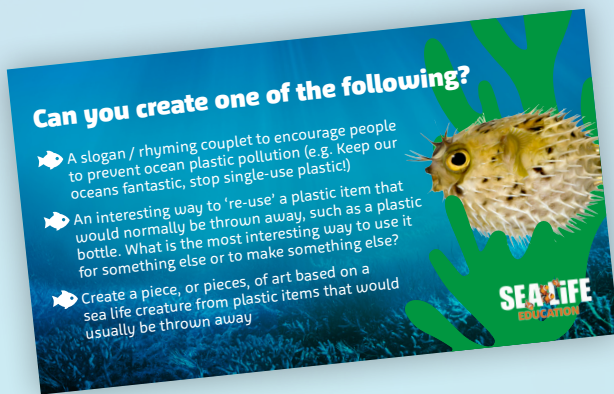
Finish this task by referring back to the questions asked in the introduction of this session. Do pupils now have a deeper understanding of plastic pollution and what they can do to combat it?



Extension

To further embed what students have learnt in this session, this extension task gets them think creatively on how they can spread the message of preventing plastic pollution!

Challenge pupils to create one of the following from **slide 18**:



★ Create a slogan / rhyming couplet to encourage people to prevent ocean plastic pollution (e.g. Keep our oceans fantastic, stop single-use plastic!)

★ Come up with an interesting way to 're-use' a plastic item that would normally be thrown away, such as a plastic bottle. What is the most interesting way to use it for something else or to make something else?

★ Create a piece, or pieces, of art, based on a sea life creature from plastic items that would usually be thrown away