

Lessons from the Maldives

Plastic in our lives KS2



Captivating
Classrooms™



in association with


Soneva

Academy

LESSON: Plastic in our lives

AGE RANGE: KS2 with some additional KS3 level slides for pupils working at a greater depth

TIME: 1 – 2 hours

CURRICULUM LINKS:

Science - Upper KS2 (Year 5 and 6)

Working Scientifically

- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.
- identifying scientific evidence that has been used to support or refute ideas or arguments.

Properties and changes of materials

- Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal) and response to magnets.
- Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.

Science – KS3

Biology

Interactions and interdependencies

Relationships in an ecosystem

- the interdependence of organisms in an ecosystem, including food webs and insect pollinated crops.
- how organisms affect, and are affected by, their environment, including the accumulation of toxic materials.

Geography – KS3

Human and Physical Geography

- Understand how human and physical processes interact to influence, and change landscapes, environments and the climate; and how human activity relies on effective functioning of natural systems.

LESSON OVERVIEW

This lesson explores different types of plastic, the impact of the waste they create on people, animals and the environment and how we can reduce this waste and pollution. Additional KS3 slides have been added for pupils working at a greater depth, to stretch their knowledge and understanding. They are marked with 'KS3' at the top of the slide. Please adapt this lesson to the pupils in your class and remove these additional slides if they are not needed.



KEY VOCABULARY

Plastic, Environment, Non-renewable, Pollution, Single-use, Reusable, Renewable, Recycle, Polymers.

POWERPOINT PRESENTATION

Slides 1 to 3 introduce the lesson and the lesson aims.

Slides 4 to 10 look at what plastic is, its properties and the seven different types of plastic.

Slides 11 to 14 explore organic and inorganic packaging and the time it takes for these items to rot away.

Slides 15 to 19 look at plastic pollution and its impact on the environment.

Slides 20 to 21 look at how waste is handled in the UK and smaller island states.

Slides 22 to 25 outline the sustainable waste management processes used by Soneva.

Slides 26 to 37 give ideas of how to create less waste and use less plastic in our everyday lives.

Slide 38 onwards include activities linked to the lesson.

Supporting
Activity
Available

This graphic on the classroom PowerPoint presentation slide, highlights a corresponding activity within these teacher's notes.

Types of plastic

Activity: PowerPoint slides 7 and 33

Find some **plastic** items and see if you can identify what type of plastic it is from the **7 types** you've learnt about.

Item	Type of plastic

Item	Type of plastic

Waste

Activity: PowerPoint slides 26-32

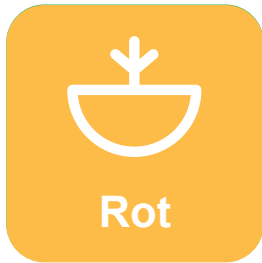
How can we help tackle the problem of waste? Come up with some examples for each of the headings below:













Reverse Bingo

Activity: PowerPoint slide 38

Play this bingo game in your classroom or with friends/family at home. Take a look at the items on the card and see how many of these you have thrown away in your recycle bin in the last week. The person with the fewest items crossed off wins!



Different types of plastic

KS3

Activity: PowerPoint slide 38



Degradable plastic breaks down into smaller fragments over time, often called micro and nano-plastics. These fragments stay in the environment for long periods of time (up to 400 years). These items can be placed in recyclable collections.



Biodegradable plastic is normally made using renewable materials, often corn starch. It can decompose (rot) by living organisms, into water, carbon dioxide and biomass. It decomposes much quicker than conventional plastic and emits fewer toxins when doing so. However, this needs to be done at specialist industrial sites to ensure the plastic reaches a hot enough temperature to biodegrade.



Compostable plastic is a sub-set of biodegradable plastic and can usually decompose within 3- 6 months. The majority of this plastic cannot be composted at home as it requires a high-temperature industrial composting facility.

Click on the following links to find out more information regarding:

[Biodegradable and compostable alternatives to plastic](#)

[Biodegradability of plastic in different environments](#)

Plastic in our lives: Keywords Flashcards



Plastic

Environment

non-renewable

Pollution

Single-use

Reusable

Renewable

Recycle

Polymers

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