

Year 8 Science Phase 2 work

Environmental plastics project

You can present your work in any of the following ways: Posters, PowerPoints, word documents, you can make models etc. Be as creative as you can.

Aim: To research **plastics and the environmental impacts of their use** and create projects on any of the following areas. You can do several short projects or one longer one on an area of your interest. You can do a project that is not listed below.

There are some questions to get you started but you can do more research on each area – don't just answer the questions.

For each project you need:

- a title
- an aim
- a list of key words and their meanings
- key information about each project and why you think it is interesting
- images that help to explain your topic.

Project ideas:

- **Find out what plastic is: What are the names and uses of different types plastics? When were plastics first used? Why is plastic so useful?**
- **Research the chemistry of plastics: What are the chemical elements found in plastics? How is crude oil used to make plastics? What is polymerisation? What are thermos-setting and thermos-softening plastics?**
- **Uses of plastics in the home: How many plastics do you have in your home? How many do you use in a day? How much do you throw away every day? How many plastics in your home can only be used once?**
- **Describe and explain how plastics are recycled: What types of plastics can be recycled? How are plastics recycled in the UK? How much plastic is recycled in the UK each year? What happens to the plastics that can't be recycled?**
- **Environmental impact of plastic waste: What happens to waste plastic that cannot be recycled in the UK? What are the environmental impacts of waste plastics on land? What are the environmental impacts of waste plastics on water? What are the environmental impacts of waste plastics on wildlife? What are micro plastics?**

Below are a list of films and TV programmes on plastics and the environment that you might like to watch:

Films to watch:

- Plastic China – available on Netflix
- Trashed - <https://www.youtube.com/watch?v=7UM73CEvwMY>
- Lorax (2012)
- WALL-E (2008)

Programmes to watch:

- **The Plastic problem** <https://www.youtube.com/watch?v=1RDc2opwg0I>
- **Plastic pollution in our oceans** <https://news.sky.com/video/special-report-plastic-pollution-in-our-oceans-10742377>
- **War on Plastics** <https://www.bbc.co.uk/iplayer/episode/m0005xgz/war-on-plastic-with-hugh-and-anita-series-1-episode-1>

Here are some links to websites that might help you with your project:

<https://www.explainthatstuff.com/plastics.html>

<https://www.bpf.co.uk/plastipedia/how-is-plastic-made.aspx>

https://www.bpf.co.uk/plastipedia/plastics_history/default.aspx

<https://www.bbc.co.uk/news/magazine-27442625>

<https://www.bbc.co.uk/teach/class-clips-video/chemistry-ks3-ks4-gcse-the-the-plastic-revolution/zj76scw>

<https://www.recycle-more.co.uk/recycling/plastic/plastic-recycling-process>

<https://www.bbc.co.uk/news/uk-42703561>

https://www.bpf.co.uk/sustainability/plastics_recycling.aspx

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/874265/UK_Statistics_on_Waste_statistical_notice_March_2020_accessible_FINAL_rev_v0.5.pdf

<https://plasticoceans.uk/the-facts-plastic-pollution-2/>

<https://www.sas.org.uk/our-work/plastic-pollution/plastic-pollution-facts-figures/>

<https://www.worldanimalprotection.org.uk/news/how-plastic-pollution-affecting-seals-and-other-marine-life>

