

Is Plastic Fantastic?

Season: All	Duration: 1.5-2 hrs															
<p>Overview: Take a look around – we use plastic for so many different purposes - so is plastic fantastic? Discuss the advantages and disadvantages of using plastic, focusing on the environmental damage caused by plastic during its production and disposal. Learn how you can reduce your impact with the 3 R's and how people around the world are doing the same. Using these examples, get creative with a plastic bottle to create an amazing windmill or fish!</p>																
<p>Learning Objectives:</p> <ul style="list-style-type: none"> • Understand what happens to things that we throw away. • Identify the environmental impact of producing and disposing of plastic • Practice the 3 Rs and how these can be applied to plastic waste. 	<p>Key Vocabulary:</p> <table> <tr> <td>landfill</td> <td>crude oil</td> </tr> <tr> <td>reduce</td> <td>oil rig</td> </tr> <tr> <td>reuse</td> <td>refinery</td> </tr> <tr> <td>recycle</td> <td>fossil fuels</td> </tr> <tr> <td>waste</td> <td>plastic</td> </tr> <tr> <td>rubbish</td> <td>global warming</td> </tr> <tr> <td>recycling centre</td> <td>climate change</td> </tr> </table>		landfill	crude oil	reduce	oil rig	reuse	refinery	recycle	fossil fuels	waste	plastic	rubbish	global warming	recycling centre	climate change
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<p>National Curriculum Links</p> <p>Science: Sc3 Materials and their properties a: Grouping and classifying materials.</p> <p>Geography: 5: Knowledge and understanding of environmental change and sustainable development: a: Recognise how people can improve the environment or damage it and how decisions about places and environments affect the future quality of people's lives; b: Recognise how and why people may seek to manage environments sustainably, and to identify opportunities for their own involvement.</p> <p>Citizenship: 2 :Preparing to play an active role as citizens: a: To research, discuss and debate topical issues, problems and events. j: That resources can be allocated in different ways and that these economic choices affect individuals, communities and the sustainability of the environment.</p> <p>Design and Technology: 2 Working with tools, equipment, materials and components to make quality products.</p>																

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Resources to be provided by school:

Scissors, table coverings.

Materials to be brought by children:

Plastic bottles (one 2L plastic 'pop' bottle complete with lid per child),

Outline of Activities with approximate timings:

Please note: We can tailor activities to suit the abilities of your class and time available.

Introduction (20 mins)

Look around the room to find items made of plastic - is plastic fantastic? Discuss the environmental impact of products made of plastic 1) during their production 2) during their disposal. Discuss more sustainable alternatives: How can we use less plastic (reduce)? How can we make plastic products last (reuse)? How can we ensure that waste plastic doesn't end up in landfill (recycle)?

Plastic bottle windmills (minimum 1 hr 10 mins)

This activity is suitable for yr 3-6. The class will be given clear step by step instructions with demonstrations in order to build their plastic bottle windmill. First, bottles will be cut to shape, cleaned, and coloured in to make the turbine's blades and hub. The shaft is then constructed to allow rotation and is finally attached to a tower. If time, the children can then test their inventions outside and make minor adjustments to improve efficiency.

OR

Plastic bottle Fish (minimum 1hr 10 mins)

This activity is suitable for yr 5+6. The class will be given clear step by step instructions with demonstrations: Bottles are cut to shape, giving gills, fins and tail which are then held in place using tape. We then decorate our fish with colourful tissue paper scraps, creating exotic new species!

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Eco– Schools Links:

Curriculum-linked activities and practical action on waste and recycling in school could be used as evidence towards an Eco Schools Award. For more information visit:

<http://www.keepbritaintidy.org/ecoschools/>

Suggested follow-up activities:

- More crafty activities using plastic bottles:
<http://www.artistshelpingchildren.org/artscraftsideasplasticbottlesprojectskids.html>
- Make a plastic bottle greenhouse for your school garden:
[http://www.reapscotland.org.uk/wp-content/uploads/2011/04/Plastic Bottle Greenhouse Instructions 2004.pdf](http://www.reapscotland.org.uk/wp-content/uploads/2011/04/Plastic%20Bottle%20Greenhouse%20Instructions%202004.pdf)
- Set up a school recycling project: collect and recycle bottle tops for a charity of your choice
<http://www.ghsrecyclingltd.co.uk/>

Useful websites:

<http://dl.dropbox.com/u/21130258/resources/InformationSheets/Plastics.htm>

Waste Watch information sheet on plastic recycling in the UK

<http://www.somersetwaste.gov.uk/pdf/Leaflets%202010/SWP%20Packaging%20Leaflet%20FINAL.pdf> Packaging information leaflet from Somerset Waste Partnership

<http://www.somersetwaste.gov.uk> : Local waste and recycling information, top tips and facts

<http://www.recyclenow.com/schools/index.html>: Lots of general recycling information, plus top tips and resources for schools.

<http://www.wastebuster.co.uk/> : Join Busta and Pong on their waste busting mission! This interactive website is full of fun children's activities, plus ideas and resources for teachers.

http://www.reducereuserecycle.co.uk/greendirectory/kids_green_sites.php : directory of fun, environmental- themed websites for children.