

Biofuels

energy search

Learners will have/be able to:

- Name a number of different biofuels, and describe their advantages as renewable sources of energy
- Explain how biofuels are used to produce energy, and that their current popularity is growing, but not without problems globally.
- Use ICT to enhance their learning – using a search engine effectively, and saving information
- Gain practice in reading texts written for different audiences and understand the general gist of the text.
- Extract useful information and make notes for a presentation
- Contribute to both group and individual tasks effectively, and help the group make progress.
- Assess and evaluate their own work and those of others, and provide thoughtful, positive feedback on how to improve either/or both spoken presentation and poster.

Indoor space

With access to computers/the internet
Powerpoint software

Indoor space

To hold a debate/presentations

Flipchart sheets and marker pens

Enough for each group

Other artwork materials

Forestry Commission England and other websites

www.forestry.gov.uk/england-woodfuel
www.usewoodfuel.co.uk
www.woodfuelwales.org.uk

BBC NEWS

24 January 2007 article
www.news.bbc.co.uk/2/hi/science/nature/6294133.stm

Biofuel Watch

www.biofuelwatch.org.uk

Biofuel

www.biofuel.org.uk

Wikipedia

www.wikipedia.org.uk

This activity uses ICT to access information about biofuels and their role as a renewable energy source in the future.

The choice of learning context – giving a presentation or taking part in a debate – ensures the research covers the variety of sources, how they are used to produce energy, and the advantages and disadvantages associated with their growth and use. For example, the global conflicts of interest in growing crops, such as maize and palm oil for fuel, rather than for feeding indigenous populations in the countries concerned, or elsewhere, through normal trading.

This research may be extended to the use of renewable energy sources in Scotland – developing a case study.



Want some ideas to develop ICT as well as presentation skills?
Visit www.prezi.com or www.toondoo.com

Preparatory activity

The main activity is to hold a series of presentations, or a debate – whichever you choose. The preparatory activity should support the pupils in providing some good practice pointers to follow.

Ask/talk about effective research, and develop some good practice guidelines for individual research on a topic, using the internet and other sources that may be available (e.g. primary/secondary sources) generally, and in this specific case – biofuels.

Ask/talk about effective presentations/debating practice e.g. in assemblies/teaching that they have come across, and develop some good practice guidelines for putting together their own short presentation – you may like to choose powerpoint as the vehicle, or leave it open for the group to decide on a group presentation etc. Discuss how a debate works – courtesy, structure etc.



Activity 2

Version 1 – Presentations

- 01 Explain to the group that they are being asked to make a short presentation to a youth conference on the environment and climate change. They have been asked to prepare a short (5 minute max.) balanced, presentation that puts forwards the benefits of biofuels for the future, but also explains any disadvantages that consumers should be aware of.
- 02 Groups of 5–6 are given a set time in which to do the research, and after that to prepare for a presentation and choice of speakers. Draw lots for the order of presentations.
- 03 You may choose to open up the audience to other classes – maximum of 5 presentations. The audiences should be asked to evaluate the presentations, and afterwards reinforce/summarise the key characteristics of good presentations, and take a vote on who thinks biofuels are good for the planet and/ or people.

Version 2 – Holding a debate

01 Divide the class into 4 groups, and explain that two groups will support the debate statement, and the other two groups will put up arguments against. Give them a set time for their research. Identify which groups will argue for and against – they may draw lots.

02 The groups are given a set time to prepare their arguments and presentations. They should choose a team of 2 or 3 debaters to put across their arguments (after considering the skills required of these people). They have a maximum of 10 minutes to present their arguments.

03 Draw lots as to which 2 teams go first. You may choose to open the debates up to a wider school audience – a teacher/the HT should be invited to chair the debate. After each debate the audiences should vote on who persuaded them the best.

04 End with a celebration, and afterwards analyse the 2 winning teams' performances. What were their strengths and weaknesses? Why did they persuade you?