

Session Five: Lesson Plan

Subject: Renewable Energy

Objectives:

Students should understand that:

- Electricity can be generated using the **sun, wind and water**, and the sun can be used to heat water
- **Renewable energy** sources will not run out
- Renewable energy does not produce greenhouse gases

Starter:

Activity 25 - Renewable V non renewable 10 mins

(Definition on board)

Picture card game played in pairs sorting them into the two categories.

Main Session:

Activity 26 - Renewable options 25 mins

Watch and discuss pictures and animations of the various technologies using PowerPoint slides and the web at www.sciencemuseum.org.uk/energy

- Biomass – plant and wood fuel
- Hydropower
- Tidal power
- Wave power
- Wind power
- Solar power

Activity 27 – Wind and solar kits 30 mins

Practical experiments to be conducted outside including setting up the kits and finding out how and where they work best.

Activity 28 – Renewable brainteasers 30 mins

Choice of two worksheets with resources for research.

Plenary:

Activity 29 – Wind Farm Debate 25 mins

Using the 3D model, children consider where best to build a wind farm in the local area, using different characters' points of view.

Homework:

Activity 30 – Micro generation survey

Investigate the possibilities of installing renewable energy at home by completing the worksheet.