Electricity

Name:

Date:

Class:

WESTMILL WeSET SUSTAINABLE ENERGY TRUST

Starter:

'You've got the power!' Encourage children to discuss the transformation of electrical energy and consider how their lives would be different if they didn't have easy access to electricity.

Main activity:

Presentation – Lesson 2 Electricity. Using slides, key questions, activities and video clips to elicit plenty of discussion, introduce the different types of sources of electrical energy.

Plenary:

Use worksheet activities and review as a class on the board/screen (slides 5, 11, 23 and 26) to consolidate learning.

AFL:

Use questions in presentation for formative assessment. Worksheet activities reinforce this and provide a tool to assess understanding and provide a record of AFL.

Success criteria:

Children will have a foundation understanding of renewable and non-renewable energy sources. If linked to a site visit, children will be more able to engage with the guides' questions.

Differentiation:

Involve all children in discussion using differentiated questioning - colour coded in teaching guide **All** **Most** **Some**. Where possible use visual aids to aid understanding. Video clips can also help with this.

To arrange a site visit, please go to http://www.weset.org/?page_id=126
Or email education@weset.org

Program of study:

Energy, electricity and introduction to renewable energy this may be linked to a trip to Westmill wind and solar.

Key learning objectives, children should:

- Be aware of different electrical energy sources
- Explain the difference between renewable and non-renewable energy
- Understand the issues associated with using fossil fuels
- Identify several different renewable energy sources and understand how they are harnessed

Cross curricular links:

Art and Design - landscape, industrial architecture

Citizenship - community, legislation

Design and Technology - materials, sustainability

English - vocabulary, discussion and debate

Geography - human and physical, field work

History - industrial revolution

Maths - statistics

Science – fossil fuels, chemical reactions

Key vocabulary:

Arc, incandescent, non-renewable, renewable, fossil fuel, coal, mining, crude oil, wells, natural gas, pipelines, finite, environmental, pollution, CO_2, nuclear, Uranium, atom, fusion, radiation, sustainable, wind turbine, solar panels, photovoltaic (PV) cells, hydro, dam, reservoir, geothermal, biomass, byproduct, The Climate Change Act

Resources:

Presentation

Linked video clips

Detailed delivery guide

Worksheet and answers

Further suggestions for resources that may aid learning and understanding can be found in the detailed delivery guide