

Energy

Name:

Date:

Class:



Starter:

'Hands up if...'. Encourage children to think about and discuss all the things they do and products they use that require energy.

Main activity:

Presentation—Lesson 1 Energy. Using slides, key questions, activities and video clips to elicit plenty of discussion, introduce the different types of energy.

Plenaries and assessment:

Use worksheet activities and review as a class on the board/screen (slides 7, 16, 20, 21 and 22) 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 the different types of energy and the power they provide through transformation. If linked to a site visit, children will be more able to engage with the tour and with the guide's questions.

Differentiation:

Involve all children in discussion using differentiated questioning - colour coded in delivery 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 renewable energy sources.
This may be linked to a trip to Westmill ind and solar.

Key learning objectives, children should:

- Be aware of different types of energy
- Explain how and why we use energy
- Understand how one type of energy can be transformed or converted to produce another
- Be able to identify the types of energy used by different products and systems

Cross curricular links:

Art and Design – changing landscape, painting with light
Design and Technology - mechanisms, forces, systems
English - vocabulary, discussion and debate
Food technology – nutrition and energy
Geography – energy consumption and conservation
History – development of electricity, industrial revolution
Maths – multiplication and division (light bulb task)
Science - electricity, energy, molecules, particles, electrodes, electrolytes, chemical reactions

Key vocabulary:

Molecules, particles, potential energy, elastic energy, kinetic energy mechanical energy, chemical energy, sound energy, light energy, thermal energy, electrical energy, conversion, transformation, battery, electrodes, electrolyte, positive, negative, electrons, energy loss, conservation

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