

## Key Stage 1 Switch on! Workshop

### Somerset Waste Action Programme

<p><b><u>Please Note:</u> The activities included in a Switch on! workshop may vary depending on your School's specific circumstances, the Waste Action Officer attending and weather conditions on the day.</b></p> <p style="text-align: center;"><b><i>We will discuss your needs and options with you when you make your booking.</i></b></p>	
<p><b>Duration: 1- 1.5 Hours</b></p>	
<p><b>National Curriculum Links:</b>          Science- Sc4 Physical Processes          Geography- Knowledge and understanding of environmental change and sustainable development 5 a+b          English- En1 Speaking and listening          Citizenship: Preparing to play an active role as citizens 2 g          Design and technology</p> <p><b>Links to DCSF/ QCA Schemes of work:</b>          Science Unit 2F Using Electricity          Geography Unit 8 Improving the environment          Literacy Strands: Speaking, Listening and Responding</p>	
<p><b>Objectives of the workshop:</b></p> <ul style="list-style-type: none"> <li>• To understand that there are different types of energy.</li> <li>• To understand what electricity is, what we use it for and where it comes from.</li> <li>• To discuss problems associated with using fossil fuels to make electricity.</li> <li>• To think about how we can save energy.</li> <li>• To identify sustainable alternatives to fossil fuels (e.g. solar, wind and water power).</li> </ul>	
<p><b>Common Difficulties, errors and misconceptions:</b>          Misconceptions about where electricity comes from and how it is made.          Misconceptions about how to use less energy and the importance of this.</p>	
<p><b>Assessment Criteria:</b>          What have we done today? What can the children tell me about energy? How can they save energy?</p>	
<p><b>Vocabulary:</b>          Energy, save, turn off, fossil fuels, coal, gas, oil, solar, wind, power, wind turbine, generator, power station, pollution.</p>	
<p><b>Resources to be provided by school:</b>          Depending on activity: cereal boxes, glue sticks, scissors, coloured pencils.          Outside space e.g. sunny area of playground/school field.</p>	<p><b>Resources to be brought in by SWAP:</b>          PowerPoint presentation, renewable energy gadgets and toys, resources for building renewable energy circuits. Energy saving light bulb, incandescent light bulb, words and pictures for decorating light switch frames, model house and examples of insulating materials.</p>
<p><b>Strategies:</b>  <b>Introduction:</b>          Using a PowerPoint presentation as a visual aid:          Introduce the concept that there are different types of energy: Start with the energy in our bodies- what do we use this for? Use wind up torches/radio to demonstrate.          Think about how we use energy at home and school- what is it the type of energy called that gadgets and appliances use? What do different appliances use it for and where does it come from? How electricity is made? Discuss the environmental issues associated with using fossil fuels to make electricity. How can we use less electricity?          Introduce the idea of using the sun, wind and sea as more sustainable sources of energy.</p>	

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**Development:**

This may involve one or more of the following options, depending on timings and weather conditions:

**Make a light switch frame to help save energy**

Children use cereal boxes to make a frame for a light switch to encourage people to switch off when they leave the room. Children decorate their frame with key words and pictures, either written and drawn themselves, or cut out and stuck on from a selection provided by SWAP.

**Investigating solar and wind power**

Weather permitting, children examine and try out a variety of toys and gadgets that use renewable energy. If time we may also make our own solar or wind circuits.

**Build an energy efficient house**

Children investigate how to save energy by insulating their homes. We use a model house to put the insulating properties of different materials to the test.

**Plenary:**

Ask the children what they think that they can do to help save energy at home and school? Why is it important to save energy? Suggest that the class has light and door monitors etc to take action in school.