














The Environment: Energy Experts

<p>Aim: Using their observations and ideas to answer questions by thinking of ways to persuade people to use less energy.</p> <p>I can work in a group to investigate the answer to a question.</p> <p>Gathering and recording data to help in answering questions by taking surveys.</p> <p>I can take surveys and use the information to help answer a question.</p>	<p>Success Criteria: I can think of a way to teach people to use less energy.</p> <p>I can communicate my ideas to other people.</p> <p>I can take a survey using a tally.</p> <p>I can use the results of the survey to answer a question.</p>	<p>Resources: Lesson Pack</p> <p>Clipboards- as required</p>
<p>Key/New Words:</p>	<p>Preparation:</p>	
<p>Energy, power, electricity, coal, oil, gas, petrol, diesel, fossil fuel, non-renewable, renewable, solar, wind, geothermal, biomass, wave</p>	<p>Energy Enquiry Survey Activity Sheet - as required</p> <p>Energy Enquiry Ideas Activity Sheet - as required</p> <p>As this lesson requires two surveys to be completed at different times, it needs to be taught over at least two sessions. To conduct their surveys, children will need access to other working areas of the school when these areas are out of use.</p>	

Prior Learning: It will be helpful if children have previous experience of using a tally chart.

Learning Sequence

	<p>The Problem With Energy: Discuss common appliances that need energy and how this is produced using fossil fuels. Outline the problems with current energy usage and production, including reliance on non-renewable energy sources and how this contributes to climate change.</p>	
	<p>Solutions: Ask children if they can think of anything that we can do to solve these problems. Allow time to discuss this with a partner before feeding back to the rest of the class. Explain that the main solutions to the problem are using less energy and developing sources of renewable power. Describe the sources of renewable energy: solar, wind, geothermal, biomass and hydropower. Give children time to talk with a partner to generate ideas to help people use less energy.</p>	
	<p>Energy Enquiry-Ideas: Can we teach people to use less energy? In groups of around four, children discuss this question and jot down their ideas on the Energy Enquiry Ideas Activity Sheet. Explain the enquiry using the Lesson Presentation.</p>	
	<p>Energy Enquiry-Survey: If possible, designate a different area of the school for each group to perform their enquiry on (for example, the workspaces of different corridors or the classrooms of a particular year group). Give children access into the rooms designated for their survey at break time or another time of day that the area is not in use. Using the Energy Enquiry Survey Activity Sheet, children complete a survey by counting the number of lights and appliances that have been left switched on.</p>	
	<p>Energy Enquiry-Action: Explain that the children need to communicate to the people in their designated area the reasons why they should try to use less energy. Prompt children to remember the key reasons why we must use less energy: because we are running out of fossil fuels and because burning fossil fuels causes climate change. Support children in designing a way to encourage people to save energy and in communicating this with the people in the area that they are surveying.</p>	
	<p>Energy Enquiry-Survey 2: At a suitable time, children return to their area to survey the number of appliances that have been left switched on when the area is out of use. Children record the results of their survey on a second Energy Enquiry Survey Activity Sheet.</p>	
	<p>Energy Enquiry-Conclusions: As a group, children consider the results of their enquiry by discussing the questions on the Lesson Presentation before feeding back to the rest of the class about what they have learnt.</p>	