

Switched On!

<p>Workshop description: This workshop looks at the history of energy; how did we cope before electricity? Students find out how much juice modern gadgets use and calculate their own ecological footprint.</p>		
<p>Summary of workshop:</p> <ul style="list-style-type: none"> • Use an energy meter to see the difference between incandescent and low energy bulbs. • “What’s Watt?” appliance energy game. • Presentation about the history of energy. • Ecological footprint activity. 		
<p>Time: 50mins-1hr</p>	<p>Number of students: 10-40</p>	<p>Suitable for years: 7-9</p>
<p>Misconceptions:</p> <ul style="list-style-type: none"> • That newer gadgets always use less energy than older gadgets. • That using renewable energy is a recent idea. 		
<p>Learning outcomes By the end of the workshop pupils should be able to:</p> <ul style="list-style-type: none"> • Name one gadget that uses a lot of electricity. • Name one problem caused by fossil fuels. • Give one source of renewable energy that has been used in the past and in the present. • Explain one way that they could reduce their ecological footprint. 		
<p>Vocabulary: KS3 – Watt, fossil fuel, acid rain, climate change, renewable energy</p>		
<p>Resources: Projector and laptop or memory stick. Kettle, 2 lamps, energy meters, wind-up torch What’s Watt game Coloured cards and blutak for footprinting activity</p>		
<p>Duration</p> <p>2 mins</p> <p>3 mins</p> <p>8-10 mins</p> <p>10-14 mins</p> <p>10-14 mins</p> <p>15 mins</p> <p>2 mins</p>	<p>Teaching and Learning activities:</p> <p>Introduce myself and what we will be doing in this workshop.</p> <p>Get students to identify the different types of energy we want from appliances.</p> <p>Explain what a watt is using an energy meter, a kettle and 2 lamps.</p> <p>What’s Watt game; students guess how much power is used by different gadgets.</p> <p>Presentation looking at how people used to generate energy, the industrial revolution and the development of the electricity supply, problems caused by fossil fuels and what forms of renewable energy we could use instead.</p> <p>Footprinting activity; Students look at the environmental impact of the electricity they use, their day to day travel, their food production, the waste they produce and the holidays they go on.</p> <p>Summing up.</p>	