

Science topics	Section layout	Accompanying worksheets	Lesson considerations
<ul style="list-style-type: none"> ● Different types of energy. ● Units used to measure energy. ● Energy transformations. ● Useful and less useful energy. ● Efficiency. ● Sankey diagrams. ● How to generate electricity. ● How fossil-fuelled power stations work. ● Reducing greenhouse gas emissions from fossil fuels. ● Coal, oil and gas formation. ● Electricity distribution. ● Hydroelectric dams for energy storage 	<p>The first pages of this section look at the different types of energy and where the energy comes from. The different units used to measure energy are described. The section then goes on to look at energy transformations, useful and less useful energy and the efficiency of energy transformations. Deeper pages look at how electricity is generated - particularly in coal-fired power stations and how modifications to these are reducing their contributions to greenhouse gas emissions. There is a page looking at the process of coal, oil and gas formation. Electricity distribution is also discussed - along with the ability of hydroelectric dams to store energy.</p>	<p>Energy types This worksheet asks about the definition and units of energy and the different types of energy. It can be used in conjunction with the website or stand-alone as a homework after studying the topic.</p> <p>Efficiency of energy changes This worksheet looks at energy transformations, useful and non-useful energy changes and efficiency of different energy changes. It contains Sankey diagrams and asks about the principle of energy conservation. It can be used independently of the website or set as homework after looking at the site.</p> <p>Energy changes in a power station This worksheet looks at the energy changes happening in a coal-fired power station. Students should be set this worksheet during or after studying this section of the website.</p> <p>Electricity running costs This worksheet looks at the running costs of various household appliances. It requires that students know how much a unit of energy costs so teachers should have a realistic figure to give students.</p>	<p>This section is best explored in parts or at the end of students studying the topic of energy and electricity generation. The worksheets could be set over a number of homeworks or as a project pack on energy.</p>

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<ul style="list-style-type: none">● Electricity use in the home● Energy rating of differing appliances	<p>This section also mentions electricity use in the home with a drag and drop activity ordering the energy rating of differing appliances in the home.</p>	<p>Hydroelectric power stations This worksheet looks at storing energy in hydroelectric power stations and the pros and cons of HEP. It can be used in conjunction or independently of the website.</p> <p>Fossil fuel formation This simple worksheet gives a template for students to record the 'How coal and oil and gas were formed. It can be given to students to complete or be given out as a template to copy into students' notes with teachers guiding the diagrams.</p>	