



## Activity 1: What is electricity

<p><b>Learning Intentions</b> Student will think critically about how electricity has changed the world, where it comes from, how we generate and use electricity and the risk, benefits and acceptability of these uses.</p>	
<p><b>Materials</b> None</p>	
<p><b>Teacher Notes</b></p>	<p><b>Teaching Notes: Running the activity</b></p>
<p>We observed and harnessed electricity way before we understood how it worked. Electricity is a range of phenomena associated with the flow of charge.</p> <p><b>Value of electricity</b> Electricity might mean children can pump and purify their water, they can switch on a light at night and read a book, do their school work, have better access to healthcare because, for example, many medicines, and especially vaccines need refrigeration. Electricity enables us to get those medicines to these children and others.</p> <p><b>Our production of electricity</b> Think about how we produce electricity from fossil fuels (gas and coal), nuclear, solar, wind, hydro? What are the benefits and risks with each of these sources? What risks are acceptable and why? For example, <a href="#">US and UK university research</a> has found that about 8 million people die each year from fossil fuel pollution.</p> <p>There are many other reasons we should reduce our energy consumption and change the way we use electricity.</p>	<p>Create small student groups Students brainstorm how they think electricity has changed the world. Students could consider the following questions:</p> <p>What would the world, their life would be like without electricity? For instance, how cold/hot it would be, how dark it would be? How would you feel?</p> <p>How many things do you do in a day that require electricity? How would you do those same tasks without electricity?</p> <p>How might electricity help children such as yourselves, but from areas in developing nations that today still don't have electricity in their homes or village?</p> <p>Where does our electricity come from? How do we generate it?</p> <p>What are some of the problems with how we generate and use our electricity?</p>