

Electricity - a versatile form of energy

Electricity is the energy that we need to have in our homes if we are to use all of our electrical gadgets. The electricity that we take for granted today has only been readily available in the UK since the 1880s. A hundred years ago only the very rich had electricity in their homes. It was not until the late 1950s that virtually everyone has access to an electricity supply.

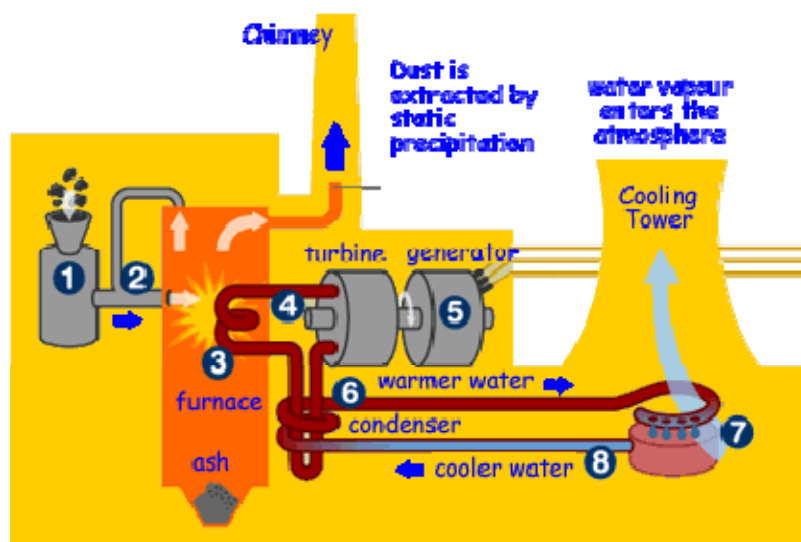
Imagining a life without a ready supply of electricity is difficult for anybody in today's developed world. We are surrounded by gadgets that use electricity. Electricity is used in the manufacture of most items in the shops; electricity keeps us warm and lights up our world.

Electricity is a **secondary source of energy** not a **primary source of energy**.

How do we 'make' electricity?

We cannot 'make' electricity - but we can change other energy types into it.

We use **natural sources of energy** such as the wind or tides (which have kinetic energy) to 'make electricity' by changing the kinetic energy into electrical energy. Or we **burn fuels** to produce electricity in power stations., changing heat energy into kinetic energy and then into electrical energy.



Common **energy sources** used to power electricity power stations are: **the fossil fuels: coal, oil and gas**, which are burned to produce heat; biomass which is burned to produce heat (these are smaller scale generally) and uranium/plutonium, in which **nuclear fission** produces the heat.

Fix this sheet in your notebook and answer the questions below in neat.

- Q1.** Electricity is a very **versatile** form of energy. Explain what 'versatile' means.
- Q2.** (a) List five electrical devices that are used to **make housework easier**.
(b) Choose one of your devices and explain how the device **saves time and effort** for the user.
- Q3.** (a) List five electrical devices that **make our life more enjoyable**.
(b) Choose one of your devices and explain why you would miss it if you had not got an electricity supply.
- Q4.** List four ways in which big shops use electricity to make the lives of their workers easier.
- Q5.** List four ways in which hospitals use electricity to make the jobs of the doctors and nurses easier.
- Q6.** List four ways in which offices use electricity to make the office workers' jobs easier.
- Q7.** List four ways in which schools use electricity to make your learning experience more enjoyable.

If you have time write a poem called 'Electricity and me!'