

Many products use **batteries!**

Remote control

Torch



Mobile phone

Remote control car

Did you know?



Washing board

Washing machine

Once upon a time, there were no **electrical items** to use!
They had not been invented.
How would life be different for you without **electrical items**?

What I will know:

- I will be able to identify electrical products.
- I will understand what electrical conductors and insulators are and that a battery contains stored electricity to power products.
- I will understand and identify the features of torches and how they work.
- I will be able to explain torch design and say what is good and bad about different torches.
- I will be able to make a working circuit with a switch and use appropriate equipment to cut and attach materials.
- I will be able to assemble a torch according to my design criteria.

What I already know:

- design purposeful, functional, appealing products for themselves and other users based on design criteria
- generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.
- select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing.
- select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.
- explore and evaluate a range of existing products.
- evaluate their ideas and products against design criteria.
- build structures, exploring how they can be made stronger, stiffer and more stable.

Vocabulary

Battery—Two or more cells put together to provide electrical energy to power a circuit.

Bulb—A circuit part made from glass or plastic which gives out light when electricity passes through.

Buzzer—A circuit part which will make a buzzing sound when electricity passes through.

Cell—A single unit that provides electrical energy to power a circuit.

Conductor—A material that allows electricity to flow through it.

Copper—A reddish material that is good at letting heat and electricity flow through it.

Electrical item—Objects that need electricity to work such as hair dryers and toasters.

Electricity—A type of energy that is usually invisible that can be made or stored and used to make objects work.

Electronic item—Electrical items that have an element of computer processing in them such as mobile phones.

Insulator—A material that does not allow electricity to pass through.

Series circuit—A closed circuit where the current follows one path.

Switch—A circuit part that you can open or close to allow electricity to flow through or to stop it.