

Phase: 3/4

Subject: Design technology

Focus: Electrical systems

Term: Autumn

What I should already know?

- What we can use electricity for around the home and our life.
- Be able to construct a simple circuit using a cell, wire, output and switch.
- Measure, create and cut materials.

Vocabulary

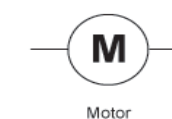
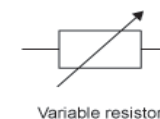
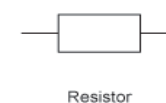
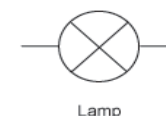
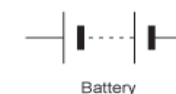
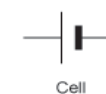
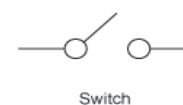
Cell	A single power source.
Switch	A connection that allows a circuit to be complete or incomplete, causing the output device to function.
Bulb	An output device which through heat, emits light.
Motor	An output device which uses an electrical current to turn a spindle.
Crocodile clip	A connection device that allows a circuit to be formed, it consists of wire and a clip on each end.
Fault	When an issue is detected within a circuit.
Battery	A multiple number of cells.
Battery holder	A device used to keep a multitude of batteries together for a circuit.
Conductor	A material that allows an electrical current to travel through it.
Series circuit	A circuit which only has one chain—if a component breaks, the circuit will not work.
Parallel circuit	A circuit which only has more than one chain—if a component breaks, the circuit will still work as the current can travel through different paths.

Knowledge

Learn how to use prior knowledge and new learning alongside trial and error to design, test and produce circuits that work to a specified criteria.

Develop a greater understanding of the uses of electricity and how we can manipulate it to suit our needs.

Develop an understanding of faults and how to find and fix them within a circuit.



By the end of the unit I should know...

- * That materials have both functional properties and aesthetic qualities that can be combined to create more useful characteristics.
- * Understand how to use electrical systems to create functional systems.
- * Make design decisions and sketch them using the appropriate resources.
- * Draw diagrams using the correct electrical symbols.

