



### Key Vocabulary

**Circuit** – a path for an electric current

**Component** – functional part of a circuit

**Switch** – electrical component that can connect or disconnect the path of electricity

**Cell** – single energy source

**Battery** – energy source comprising of more than one cell

**Series circuit** – electricity flows around each component in turn; the voltage is shared between components

**Parallel circuit** – electricity can flow through separate loops; voltage is the same for each loop

**Electric current** – the amount of electricity flowing through a circuit, measured in Amperes (**A**)

**Electrical conductor** – a material that allows electricity to pass through

**Electrical insulator** – a material that electricity cannot pass through

**Short circuit** – electrical current flowing through an unintended, shorter pathway

**Watts** – units of electric power used, often referred to in lightbulbs

**Voltage** – the pressure of the electricity flowing through a circuit

### By the end of this topic, you will know:

- How to draw accurate circuit diagrams using symbols
- A range of materials that are electrical conductors and insulators
- Why a circuit will not work from looking at the diagram
- How the voltage in a circuit affects the brightness of a lamp or volume of a buzzer
- How series and parallel circuits differ



# Design

