

WHAT SHOULD I ALREADY KNOW?

- How to use a simple circuit
- The different components of a circuit (bulb, switch etc)
- What a conductor is

WHAT I WILL LEARN...

- How to Incorporate a switch Into a circuit
- How to control a model using an ICT control
- How to use different types of circuits In a product

VOCABULARY

Circuit	Wires, battery, bulb that are all connected so that electricity flows.
Control	Able to start and stop the flow of electricity.
Fault	A break In the flow of electricity.
Insulator	Something that limits the flow of electricity.

RESEARCH

Thomas Edison was a famous inventor, who is best known for inventing the domestic lightbulb. He also invented new materials that allow for long-lasting lighting, safety fuses and on/off switches.



Traffic lights work on a timer system, to ensure there is a consistent flow of traffic in all directions. This works best in busier areas; in quieter areas, some traffic lights work on a sensor/monitoring system. Burglar alarms are another monitor/sensor system.



DESIGN

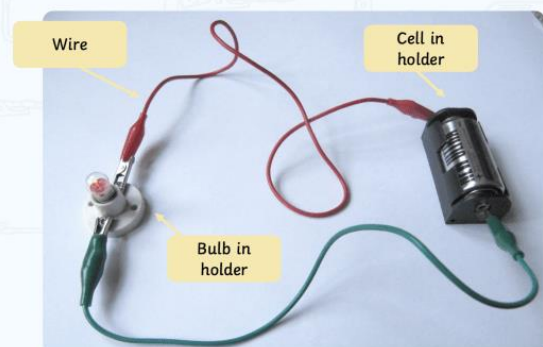
What are you making?
Why are you making it?
Who is it for?

These questions will help you realise if you need a series or a parallel circuit.

Series = Only one path which the electricity flows. If one part goes out, it all goes out.

Parallel = Each section of the circuit has Its own power. If one section breaks, the others will still work.

A simple circuit



MAKE

In addition to making your product, you also need to learn how to write a sequence of Instructions using a control programme.

EVALUATE

How well does your electrical system work?
Does it work as planned?
Does it meet its purpose?
What circuit did you choose? Why?
What switch did you choose? Why?
What would you do differently next time?