



Year 6

DT - Electrical systems: More complex switches and circuits

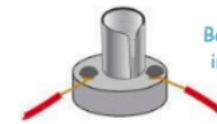
Key vocabulary

Circuit	Path through which electricity passes
Conductor	A material which allows electric current to pass through it
Insulator	A material which does not easily allow electric current to pass through it
Prototype	A model made to test whether a design will work
Push-to-break switch	A switch turned off by pressing it
Push-to-make switch	A switch turned on by pressing it
Reed switch	A switch operated by a magnet
Toggle switch	a switch operated when a lever is pressed
System	A set of related parts or components that achieve an outcome
Output devices	Components that produce an outcome e.g. bulbs or buzzers
Input devices	Components that are used to control an electrical circuit e.g. switches
Series circuit	Series circuits are several components one after each other.
Parallel circuit	In a parallel circuit, different components are connected on different branches of the wire.

Examples of switches

Making secure connections

Connecting block



Bulb holder
Bend wire around screw in direction of turning when tightening

Twist strands of wire together



Insulating tape
Tape over



Commercial switches



Push-to-break switch

The switch is off while the button is pushed, but returns to its 'on' position when button is released.



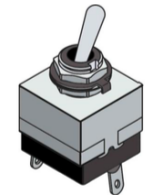
Push-to-make switch

When you push, the electricity flows through the circuit, but when you release it the circuit is broken and the switch is off.

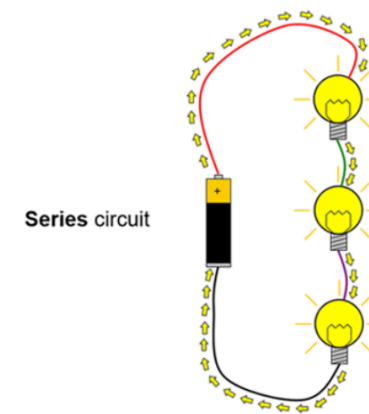


Reed switch

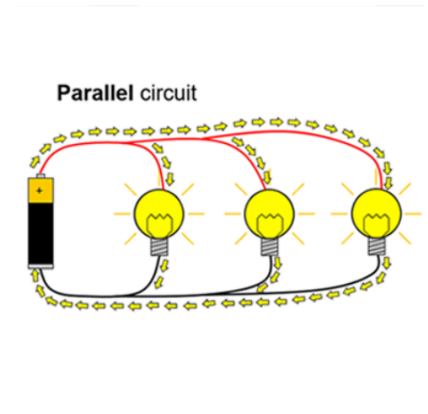
Activated by a magnet - this closes the contacts and completes the circuit.



Toggle switch
Simple on/off switch



Series circuit



Parallel circuit