



Science – Monday 1st February

Electricity



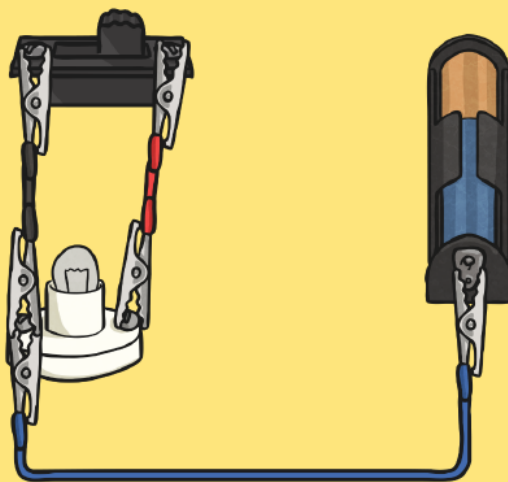
Recap - circuits



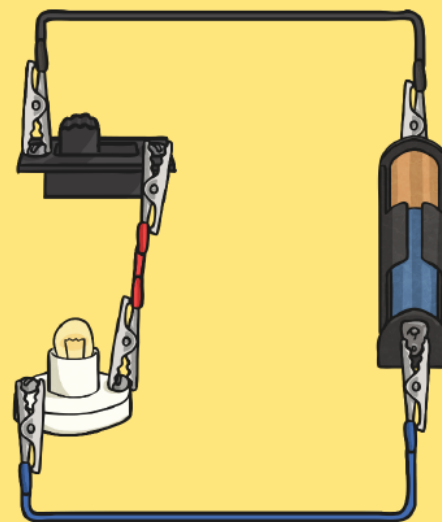
Complete and Incomplete Circuits

For a circuit to work, it needs to be complete. This means no gaps.

Incomplete Circuit



Complete Circuit





Bulbs, Buzzers and Motors

What examples of circuits which include bulbs/buzzers/motors do you know?

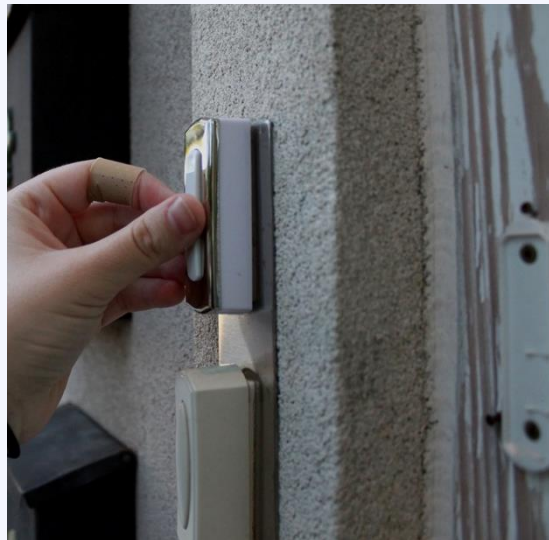
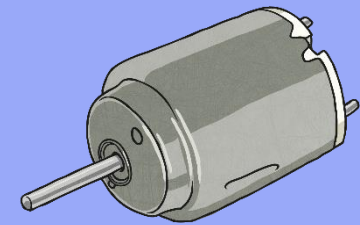
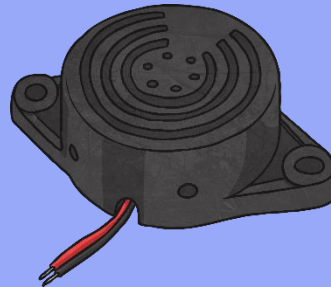
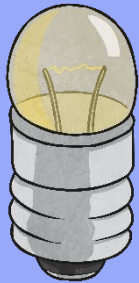
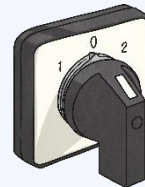
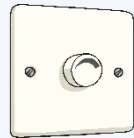
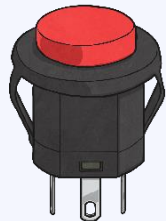
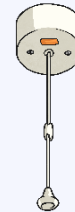
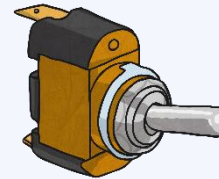
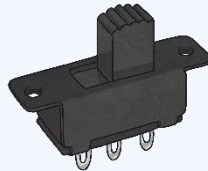
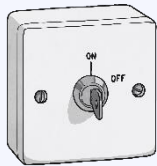


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Switches

There are a wide variety of switches that can be used.
Match the type of switch and its name.



slide switch

push button switch

pull switch

dimmer switch

paddle switch

selector switch

key switch

toggle switch



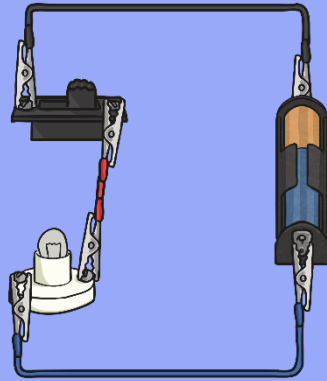
Switches

- **Why** do we need switches?
- **Do** you want your door bell ringing constantly?
- **Would** you want the lights in your house to be on all the time? **Why?** **Why** not?
- **What** are the practical problems of complete circuits in everyday life?

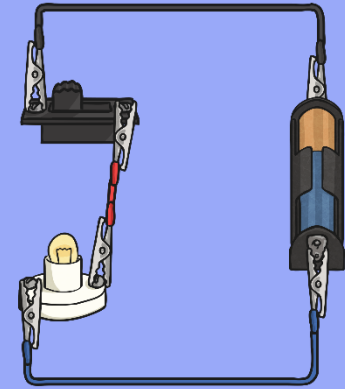


How Switches Work

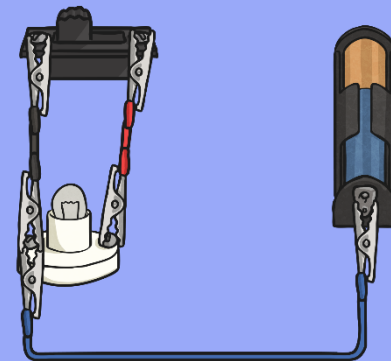
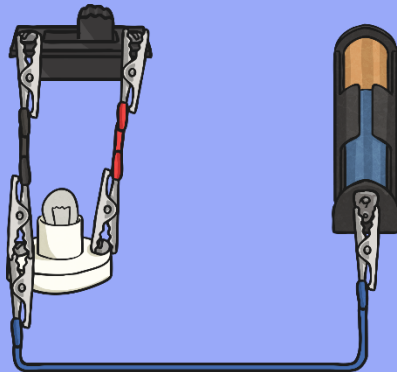
A switch 'breaks' a complete circuit on purpose to stop the flow of **electricity** when it is off.



When the switch is on, the circuit is complete and so the **electricity** is able to flow around the circuit.



A circuit with a switch is not the same as an incomplete circuit. In an incomplete circuit, the **electricity** is unable to flow at all whether the switch is on or off.











Your task:



How many different types of switches can you find in your house?

Investigating Switches

See how many of the following types of switches you can find and note down its use (i.e. switch for a light). Then tally the number of times you found it and write down the total.

| Type of Switch | Use | Tally | Total |
|--|-----|-------|-------|
| Paddle switch  | | | |
| Key switch  | | | |
| Push button switch  | | | |
| Toggle switch  | | | |
| Selector switch  | | | |
| Dimmer switch  | | | |
| Pull switch  | | | |
| Slide switch  | | | |