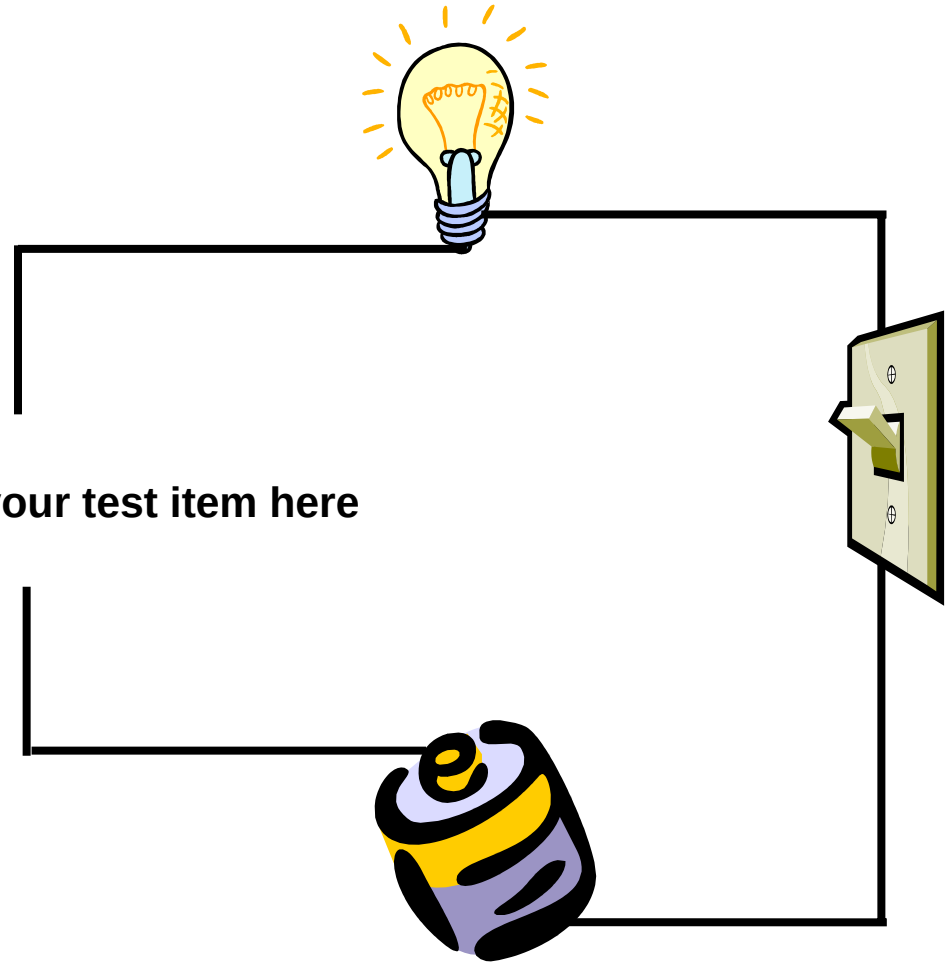
All metals allow an electric current to pass through them.

1. **Select a set of metals and non-conductors like wood, plastic, wool, glass, rubber.**
2. **Set up an electric current with a battery, a switch and a light bulb (or buzzer).**
3. **Work the switch to check that your circuit works.**
4. **Put the material you are testing into the circuit. Work the switch.**
5. **If the light comes on, it will be one of the metals; if the light does not come on it is one of the non-conductors.**



Extend the experiment by trying it out with the graphite core of an old pencil. This will show that there are some materials that are not metals and will conduct electricity.

Think about how you are going to record your experiment. Is it a fair test? What did you find out?