



## Conducting electricity

### Background knowledge

Matter that allows electricity to pass through it easily is called an electrical conductor. Electricity passes through a conductor to turn on a TV or computer, for example. Metals can conduct electricity, but some are better conductors than others. Solutions that have dissolved charged particles in them can also conduct electricity.

### Science activity

An electrical circuit was set up to test the conductivity of different types of matter. A bulb was placed in the circuit. If the matter conducted electricity, the bulb lit up.



Material tested	Status of bulb
gold	very bright
copper	bright
plastic	not lit
wood	not lit
graphite	quite bright
lead	quite bright
paper	not lit
salt water	bright
distilled water	not lit

What factor was used to determine the conductivity of the matter?

Which sample(s) of matter are the best conductors?

What types of matter are the best conductors of electricity?

Why do you think salt water can light the bulb but distilled water cannot?

### Science investigation

Ⓛ Take extra care - ask an adult to supervise you.

Build your own circuit using a 6 volt battery as your source of electricity and a LED light bulb. Test other types of matter for conductivity. Create a data table to record your observations.

