

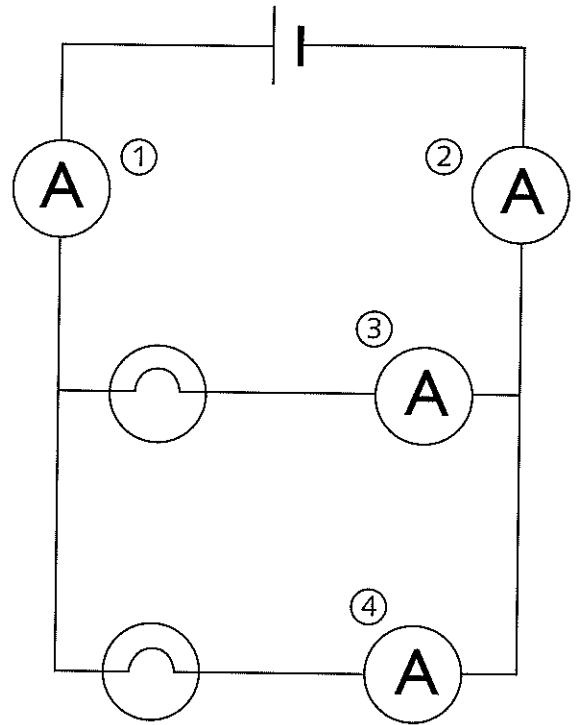
circuit, the current is the same at all points of the circuit. In a parallel circuit, the current varies depending on how many loops there are within the circuit. This is because the current is divided between the loops.

► In a parallel circuit, the current divides equally if the resistance of each loop is the same. Ammeters (1) and (2) would each show the total current. Ammeters (3) and (4) would each show half of the total current.

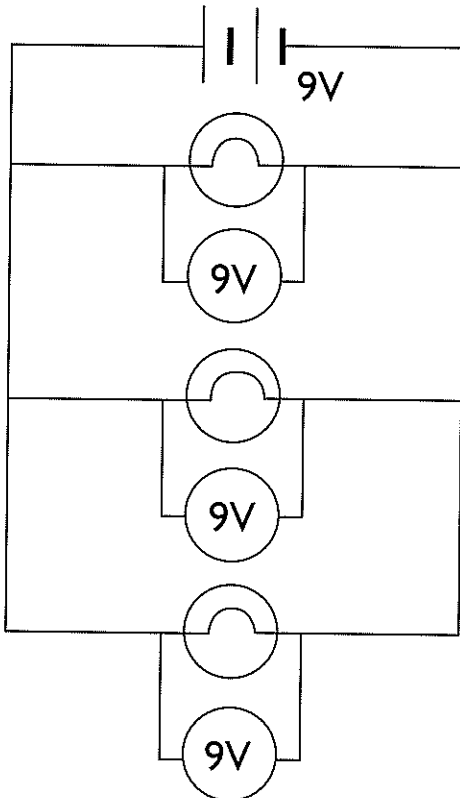
WHAT IS VOLTAGE?

Voltage is a measure of how hard an electricity supply pushes an electric current around a circuit. The bigger the voltage, the bigger the push, and the bigger the current. Batteries usually have a voltage of between three and 12 volts (V). The mains electricity supply, the one that supplies your home, is around 240 V.

MEASURING CURRENT IN A PARALLEL CIRCUIT



MEASURING VOLTAGE IN A PARALLEL CIRCUIT



▲ In a parallel circuit, the voltage across each component represents the entire supply voltage of the battery.

MEASURING VOLTAGE

An electric current carries electrical energy, also known as electrical potential energy, which powers components in a circuit. As the current travels around a circuit, its electrical potential energy is used up by the components. When the current returns to the electric cell at the end of the circuit, it has less energy than it had at the start.

The difference between the energy at the start of the circuit and at the end is called the **potential difference**. Potential difference is another name for voltage. To measure voltage, we use a voltmeter to measure the difference between the energy entering a component or electric cell, and the energy leaving it.

MEASURING VOLTAGE IN A SERIES CIRCUIT

► In a series circuit, the voltage across each component can be added together to give the entire supply voltage of the battery.

