

Knowledge Check: DC and AC Electricity

You must either type your answer or choose the correct option from the drop-down list provided.

There are two types of electricity, known as DC electricity and AC electricity.

In a _____ current (DC) circuit, electrons move in a _____ direction around the circuit, travelling from the _____ side of the power supply.

Note that this is the _____ direction to conventional current. This is due to the fact that electrons have _____ charge.

In an _____ current (AC) circuit, electrons move _____
This can be represented by giving positive and negative values to the electrons' position at different moments in time. Current is therefore a _____ quantity because it is measured with both _____ and direction.

Although the electrons do not move around an AC circuit, they pass around the circuit. Even in a DC circuit, the electrons move only very slowly. We can imagine electrons going in relay around the circuit, passing-on the _____ much more quickly that they can move themselves.

This difference in behaviour is similar to the two different types of waves;

- In _____ waves, the particles move back and forth, _____ to the direction of the energy transfer.
- In _____ waves the particles vibrate up and down, _____ to the direction of the energy transfer.

In both cases, the movement of the particles that transfer the energy in a wave is separate from the movement of the energy itself. This is the same as the situation that applies to DC and AC electricity, where the actual movement of the electrons is separate from the movement of energy around the electric circuit.