

# What is electricity?

LISTEN AND CHOOSE THE CORRECT OPTION

Electricity consists of a **set** **flow** of free electrons along a conductor. To produce this current flow, a generator is placed at the end of the conductor in order to move the **charge** **chart**.

## CONDUCTORS

Electricity needs a material which allows current to pass through easily, which offers little **resistant** **resistance** to the flow and is full of free electrons. This material is called a conductor and can be in the form of a bar, tube or sheet. The most commonly used **conduct** **conductors** are wires, available in many sizes and thicknesses. They are coated with insulating materials such as plastic.

## SEMICONDUCTORS

Semiconductors such as silicon and germanium are used in transistors and their conductivity is halfway in between the conductor and an **insulator** **insulate**. Small quantities of other substances, called impurities, are introduced in the material to **reuse** **reduce** the conductivity.

## INSULATORS

A material which contains very **flow** **few** electrons is called an insulator. Glass, rubber, dry wood and **plastic** **spastic** resist the flow of electric charge, and as such they are good insulating materials

**Read the text again and decide if the sentences are TRUE OR FALSE**

1 A flow of electrons moving inside a conductor creates an electric current.

T  F

2 A generator is used to move the charges.

T  F

3 Electrons can easily pass through any material.

T  F

4 Any material is a good conductor.

T  F

5 Conductors are coated with insulators.

T  F

6 The presence of free electrons affects the conductivity of materials.

T  F

7 Impurities are introduced to increase conductivity.

T  F

8 Insulating materials resist the flow of electrons.

T  F

## **UNITS OF MEASUREMENT**

**Move the units in the correct place**

VOLTS

AMPERES

COULOMB

WATTS

KILOWATT



| Unit of measurement | What does it measure?  |
|---------------------|--|
| (1) _____           | the number of electrons passing a given point in a conductor in one second |
| (2) _____           | the quantity of electricity transferred by a steady current of one ampere  |
| (3) _____           | the amount of electric energy used   |
| (4) _____           | the difference of potential between two points on a conductor              |
| (5) _____           | rate at which work is done   |