

Electric circuits

Common circuit symbols

Current

Voltage

Using electrical circuits in the home

Investigating current and voltage

Combining resistors in series and parallel

Electrical power

Generating electricity

Advantages and disadvantages of generating electricity from different primary sources of energy

Comparing the cost

Generating electricity in a fuel-based power station

Why do we need the National Grid?

Electrical power

Sankey diagrams

Efficiency

Making use of energy

Conduction, convection and radiation

Applying density

Insulation

Units of energy - the kilowatt-hour

Heating and transport costs

Domestic electricity

How much does it cost to run?

a.c. or d.c.?

Using mains electricity safely

Micro-generation of domestic electricity

Features of waves

Transverse and longitudinal waves

How do we describe waves?

Calculating wave speed, frequency and wavelength

What is the electromagnetic spectrum?

Reflection of waves

Refraction of waves

Communicating using satellites