



Science

Years 5 and 6 Cycle A



Keeping Fit and Healthy

- Find out how scientific ideas about food and diet were tested in the past and how this has contributed to our knowledge of a balanced diet
- Investigate some different food groups and find out why a variety of foods is important for a healthy diet
- Learn how nutrients and water are transported in the human body
- Explore what happens to the heart when we exercise and why.
- Study how muscles move the skeleton and how muscle activity requires increased blood flow.
- Investigate the effects of tobacco, alcohol and other drugs.

Electricity

- Use recognised symbols when representing a simple circuit in a diagram
- Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit
- Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches
- Learn how to plan fair tests in order to investigate different component functions

Properties of Materials

- Understand the difference between natural and synthetic materials
- Compare and group together everyday materials on the basis of their properties
- Test materials for magnetism, hardness, transparency, flexibility and permeability
- Sort and classify materials according to their properties
- Learn about thermal conductors and thermal insulators
- Investigate which materials would be best suited for a lunch box by testing thermal insulating materials

Forces of Movement

- Understand the term gravity and how it acts upon objects
- Test a range of materials to identify which materials create the most friction
- Explore the effects of air resistance by investigating the best parachute to slow a person down
- Investigate the effects of water resistance by creating and racing streamlined boats
- Use scientific language to draw conclusions and explain their findings

Plants

- Understand how each part of a plant has a specific function
- Name the different parts of flowering plants
- Identify the different stages in the life cycle of a plant
- Plan an experiment to investigate conditions needed for germination
- Make daily and weekly recordings to find out what the best condition for germination is
- Describe the different methods of seed dispersal

Inventors and Discoveries

- Report findings from an inquiry inspired by Stephen Hawking's theories about black holes
- Create a model of the structure of DNA
- Explore medicines and the effects of penicillin on a bacteria colony
- Learn about Mary Leakey – a paleoanthropologist who discovered fossils of early humans and their tools
- Explain how Steve Jobs used electronics to design computers