

Stage 6 Scientific enquiry

SPS	Unit 13	Unit 14	Unit 15	Unit 16	Unit 17	Unit 18	Unit 19	Unit 20	Unit 21	Unit 22	Unit 23	Unit 24
 Ideas and evidence Consider how scientists have combined evidence from observation and measurement with creative thinking to suggest new ideas and explanations for phenomena. 									~	~	~	~
• Collect evidence and data to test ideas including predictions.									~	~	~	✓
Plan investigative workDiscuss how to turn ideas into a form that can be tested.									~	~	~	~
 Make predictions using scientific knowledge and understanding. 									~	\checkmark	~	~
• Choose what evidence to collect to investigate a question, ensuring that the evidence is sufficient.									~	~	~	~
• Identify factors that are relevant to a particular situation.									~	~	~	~
Choose which equipment to use.									~	~	~	~
 Obtain and present evidence Make a variety of relevant observations and measurements using simple apparatus correctly. 									~	\checkmark	~	~



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• Decide when observations and measurements need to be checked by repeating to give more reliable data.									~	~	~	~
• Use tables, bar charts and line graphs to present results.									~	~	~	~
Consider evidence and approach Make comparisons. 									~	~	~	~
• Evaluate repeated results.									~	~	~	~
• Identify patterns in results and results that do not appear to fit the pattern.									~	~	~	~
• Use results to draw conclusions and to make further predictions.									~	~	~	~
• Suggest and evaluate explanations for predictions using scientific knowledge and understanding and communicate these clearly to others.									~	~	~	~
 Say if and how evidence supports any prediction made. 									~	~	~	~



Stage 6 Biology

SPS	Unit 13	Unit 14	Unit 15	Unit 16	Unit 17	Unit 18	Unit 19	Unit 20	Unit 21	Unit 22	Unit 23	Unit 24
Humans and animalsUse scientific names for some major organs of body systems.					~							
• Identify the position of major organs in the body.					~							
• Describe the main functions of the major organs of the body.					~							
• Explain how the functions of the major organs are essential.					~							
 Living things in their environment Explore how humans have positive and negative effects on the environment, e.g. loss of species, protection of habitats. 									~			
• Explore a number of ways of caring for the environment, e.g. recycling, reducing waste, reducing energy consumption, not littering, encouraging others to care for the environment.									~			
• Know how food chains can be used to represent feeding relationships in a habitat and present these in text and diagrams.									~			



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• Know that food chains begin with a plant (the producer), which uses energy from the sun.									~			
• Understand the terms <i>producer</i> , <i>consumer</i> , <i>predator</i> and <i>prey</i> .									~			
• Explore and construct food chains in a particular habitat.									~			



Stage 6 Chemistry

SPS	Unit 13	Unit 14	Unit 15	Unit 16	Unit 17	Unit 18	Unit 19	Unit 20	Unit 21	Unit 22	Unit 23	Unit 24
Material changes Distinguish between reversible and irreversible changes. 						~						
• Explore how solids can be mixed and how it is often possible to separate them again.						~						
• Observe, describe, record and begin to explain changes that occur when some solids are added to water.						~						
• Explore how, when solids do not dissolve or react with water, they can be separated by filtering, which is similar to sieving.						~						
• Explore how some solids dissolve in water to form solutions and, although the solid cannot be seen, the substance is still present.						~						



Stage 6 Physics

SPS	Unit 13	Unit 14	Unit 15	Unit 16	Unit 17	Unit 18	Unit 19	Unit 20	Unit 21	Unit 22	Unit 23	Unit 24
Forces and motion Distinguish between mass measured in kilograms (kg) and weight measured in Newtons, noting that kilograms are used in everyday life. 							~					
• Recognise and use units of force, mass and weight and identify the direction in which forces act.							~					
• Understand the notion of energy in movement.							~					
• Recognise friction (including air resistance) as a force which can affect the speed at which objects move and which sometimes stops things moving.							~					
 Electricity and magnetism Investigate how some materials are better conductors of electricity than others. 											~	
• Investigate how some metals are good conductors of electricity while most other materials are not.											~	
• Know why metals are used for cables and wires and why plastics are used to cover wires and as covers for plugs and switches.											~	



Stage 6 Physics

SPS	Unit 13	Unit 14	Unit 15	Unit 16	Unit 17	Unit 18	Unit 19	Unit 20	Unit 21	Unit 22	Unit 23	Unit 24
• Predict and test the effects of making changes to circuits, including length or thickness of wire and the number and type of components.											~	
• Represent series circuits with drawings and conventional symbols.											~	