

Stage 5 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 • Know that scientists have combined evidence with creative thinking to suggest new ideas and explanations for phenomena.					√	√	√	✓	√	√	√	✓
Use observation and measurement to test predictions and make links.					✓	√	✓	✓	✓	✓	✓	✓
Plan investigative work • Make predictions of what will happen based on scientific knowledge and understanding, and suggest and communicate how to test these.					√	√	√	✓	✓	√	√	✓
Use knowledge and understanding to plan how to carry out a fair test.					✓	√	✓	✓	✓	✓	✓	✓
Collect sufficient evidence to test an idea.					✓	√	✓	✓	✓	✓	✓	✓
Identify factors that need to be taken into account in different contexts.					✓	√	✓	✓	✓	√	✓	✓
Obtain and present evidence • Make relevant observations.					√	√	√	✓	✓	√	√	✓



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Measure volume, temperature, time, length and force.						✓	✓	✓	✓	√	✓	✓
Discuss the need for repeated observations and measurements.					✓	✓	✓	✓	√	√	✓	✓
Present results in bar charts and line graphs.					✓	✓	✓	✓	√	√	✓	✓
Consider evidence and approach • Decide whether results support predictions.					✓	✓	✓	√	√	√	✓	✓
Begin to evaluate repeated results.					✓	✓	✓	✓	✓	√	✓	✓
Recognise and make predictions from patterns in data and suggest explanations using scientific knowledge and understanding.					√	√	√	✓	√	√	√	✓
Interpret data and think about whether it is sufficient to draw conclusions.					~	~	✓	✓	✓	√	√	✓



Stage 5 Biology

SPS	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10	Unit 11	Unit 12
Plants • Know that plants need energy from light for growth.									✓			
Know that plants reproduce.									√			
Observe how seeds can be dispersed in a variety of ways.									√			
Investigate how seeds need water and warmth for germination, but not light.									✓			
Know that insects pollinate some flowers.									√			
Observe that plants produce flowers which have male and female organs; seeds are formed when pollen from the male organ fertilises the ovum (female).									✓			
Recognise that flowering plants have a life cycle including pollination, fertilisation, seed production, seed dispersal and germination.									√			



Stage 5 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
States of matter • Know that evaporation occurs when a liquid turns into a gas.						√						
Know that condensation occurs when a gas turns into a liquid and that it is the reverse of evaporation.						✓						
Know that air contains water vapour and when this meets a cold surface it may condense.						✓						
• Know that the boiling point of water is 100°C and the melting point of ice is 0°C.						✓						
Know that when a liquid evaporates from a solution the solid is left behind.						✓						



Stage 5 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
Light • Observe that shadows are formed when light travelling from a source is blocked.		✓										
• Investigate how the size of a shadow is affected by the position of the object.		✓										
Observe that shadows change in length and position throughout the day.		✓										
Know that light intensity can be measured.		✓										
Explore how opaque materials do not let light through and transparent materials let a lot of light through.		✓										
Know that we see light sources because light from the source enters our eyes.		✓										
Know that beams/rays of light can be reflected by surfaces including mirrors, and when reflected light enters our eyes we see the object.		✓										



Stage 5 Physics

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Explore why a beam of light changes direction when it is reflected from a surface.		✓										
 The Earth and beyond Explore, through modeling, that the sun does not move; its apparent movement is caused by the Earth spinning on its axis. 												✓
• Know that the Earth spins on its axis once in every 24 hours.												✓
Know that the Earth takes a year to orbit the sun, spinning as it goes.												✓
Research the lives and discoveries of scientists who explored the solar system and stars.												✓