Science Curriculum Overview

Years 1,2,3

Term	Topic	Knowledge and Skills
Autumn	Rocks and Light	• Identify and compare a variety of rocks based on appearance and physical properties. • Describe how fossils are formed and explain what they tell us about life in the past. • Understand how soil is made and recognise its importance for plant growth. • Recognise that light is needed to see objects and distinguish between light sources and non-light sources. • Investigate how shadows are formed and how they change when the position of a light source changes. • Plan simple investigations, make observations and record results using scientific vocabulary.
Spring	Forces & Magnets	• Identify different types of forces including pushes, pulls and friction. • Investigate how objects move on different surfaces and explain the effect of friction. • Recognise that magnets have poles and attract or repel each other. • Compare and group materials according to whether they are magnetic.

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		• Investigate how magnetic forces act at a distance. • Gather, record and present data from practical investigations and draw simple conclusions.
Summer	Animals Including Humans- Year 1 content (Goldfinch) Year 3 (Wren)	• Identify, name and classify common animals including mammals, birds, fish, reptiles and amphibians. • Describe and compare the basic structure of common animals, including their body parts and features. • Identify, name and label the main parts of the human body and explain which body part is associated with each sense. • Understand that humans use their senses to explore and learn about the world around them. • Compare animals based on observable features and group them accordingly. • Use observations to answer simple scientific questions and record findings in different ways. • Identify that humans and some animals have skeletons and muscles for support, protection and movement. • Explain the purpose of nutrition and identify the different food groups needed for a healthy diet. • Understand that animals, including humans, need the right types and amounts of nutrition to survive and grow. • Investigate how muscles work in pairs to create movement around joints.

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		• Compare the diets of different animals and explain how this relates to their lifestyle and habitat. • Gather, record and interpret scientific data from investigations related to nutrition, exercise and movement.

Years 4,5,6

Term	Topic	Knowledge and Skills
Autumn	Forces, Sound and Light, Electricity	• Explain the effects of gravity, friction, air resistance and water resistance on movement. • Understand how levers, pulleys and gears can make work easier. • Explore how sounds are made, travel through different materials and are detected by the ear. • Explain how light travels and investigate reflection, shadows and how we see objects. • Construct and draw simple electrical circuits using recognised symbols. • Plan fair tests, record results systematically and use evidence to support conclusions.

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Spring	Properties and change of Materials, States of Matter	• Compare and group materials according to their properties including hardness, transparency, conductivity and solubility. • Investigate reversible and irreversible changes and identify evidence of chemical reactions. • Understand the properties of solids, liquids and gases using the particle model. • Explain changes of state including melting, freezing, evaporation and condensation. • Investigate the water cycle and explain how temperature affects it. • Use scientific enquiry skills to make predictions, collect data and evaluate findings.
Summer	Animals Including Humans & Evolution (Year 5 content for Kingfisher, Year 6 content for Kestrels)	• Describe the changes that occur as humans develop from infancy to old age, including physical, emotional and social changes. • Understand the stages of the human life cycle and compare development across different ages. • Explain how puberty affects the body and prepares humans for adulthood. • Investigate factors that contribute to a healthy lifestyle, including diet, exercise and personal hygiene. • Collect, present and interpret data related to growth, development and health. • Use scientific evidence to explain how lifestyle choices can affect wellbeing and long-term health.

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		• Recognise that living things have changed over time through the process of evolution. • Understand that offspring inherit characteristics from their parents but are not identical to them. • Explore how fossils provide evidence for the evolution of living things over millions of years. • Explain how plants and animals adapt to their environments to improve their chances of survival. • Investigate how adaptation can lead to evolutionary change over time through natural selection. • Use scientific evidence from fossils, living organisms and research to support explanations about evolution and inheritance.