

Autumn term

EYFS: Children explore themselves, their bodies, animals and the natural world. They use their senses to observe and talk about what they can see, hear and feel, and begin to notice similarities and differences in living things.

Children explore, observe, discuss and make simple predictions as they investigate the world around them.

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
★ Animals including humans Biology: Children learn about animals, including humans. They identify body parts and senses, name and classify animals, and compare the bodies and characteristics of different animals. 🌀 💭 EY link Understanding the World	★ Everyday materials Chemistry: Children identify a range of everyday materials and distinguish between an object and the material from which it is made. They compare and classify materials according to their properties and explore how materials can be changed.	★ Rocks Chemistry: Children explore rocks, comparing and grouping them according to their physical properties. They learn how different rocks are formed and used and explore how fossils are formed in sedimentary rock. 🌀 Year 1 Everyday materials Forces and magnets Physics: Children investigate forces and magnets, exploring attraction, repulsion and magnetic materials. They investigate how forces affect the movement and speed of objects.	★ States of matter Chemistry: Children explore the three states of matter and investigate how materials change when they are heated or cooled. They explore evaporation, condensation and the water cycle. Sound ★ Physics: Children investigate sound, exploring how sounds are made, how they travel and how pitch and volume can be changed. 💭 Music link	★ Properties and changes of materials Chemistry: Children investigate the properties of materials, testing and grouping them using scientific evidence. They explore dissolving, separating mixtures and reversible and irreversible changes. Forces and magnets 🌀 ★ Physics: Children explore forces and magnets, including gravity, friction, air resistance, water resistance and how forces affect movement. Year 3 forces and magnets	★ Evolution & inheritance Biology: Children explore evolution and inheritance, learning how offspring inherit characteristics and why they are not identical. They explore variation, adaptation and the evidence for evolution, including the work of Charles Darwin. They also classify living things according to their characteristics. 💭 RE link

Spring term

EYFS: Biology: Children explore plants, animals and growth, noticing how living things change over time. They begin to understand what plants need to grow and develop an awareness of seasonal and environmental changes. **Chemistry:** Children explore different materials and their properties, noticing how materials can change through mixing, heating, cooling and other experiences. **Working Scientifically:** Children test ideas, make simple predictions and talk about what they have discovered.

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Everyday materials ★ Chemistry: Children explore everyday materials, identifying, naming, sorting and comparing materials according to their properties. They investigate how materials can be changed by squashing, bending, twisting, stretching, heating and cooling. Seasonal changes Physics: Children observe seasonal changes, identifying the four seasons and noticing changes in weather and day length. ☁ EYFS Understanding the world	Animals including humans ★ Biology: Children learn about animals, including humans, exploring what animals need to survive, how they grow and reproduce, and the importance of exercise and a balanced diet. Year 1 animals including humans EYFS Understanding the world	Light ★ Physics: Children learn about light, exploring how light travels, how shadows are formed and the differences between transparent, translucent and opaque materials. Plants Biology: Children explore plants, identifying the functions of roots, stems, leaves and flowers and investigating what plants need to live and grow. Year 1, 2 plants	Electricity ★ Physics: Children explore electricity, constructing simple circuits and investigating conductors, insulators, switches and how changes affect a circuit. ☁ Computing link	Living things and habitats ★ Biology: Children explore the life cycles of plants and animals, including humans, amphibians, insects and birds. They investigate reproduction, growth and respiration and compare life cycles in different environments. Year 1-4 plants Earth and space ★ Physics: Children learn about Earth and space, exploring the movement of the Earth, Sun and Moon, seasons, day and night and the position of planets and stars. Year 3 light	Animals including humans ★ Biology: Children learn about the human circulatory and gaseous exchange systems, identifying major organs and explaining their functions. They explore how diet, exercise and lifestyle affect the body and how nutrients and water are transported. Year 4 animals including humans ☁ PE link

Summer term

EYFS: Biology: Children develop their understanding of plants, animals and their habitats. They observe the natural world, explore life cycles and begin to understand how living things depend on their environment. **Physics:** Children explore simple forces, movement and changes such as floating and sinking. **Working Scientifically:** Children observe closely, compare, investigate and begin to explain what they notice.

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Plants ★ Biology: Children learn about plants, identifying common plants and trees and naming the main parts of a plant. They recognise different trees and begin to understand what plants need to grow.	Plants & Habitats ★ Biology: Children explore plants and what they need to survive and grow, including how seeds and bulbs develop. They investigate living things and their habitats, identifying how plants and animals are suited to where they live and constructing simple food chains.	Animals including humans ★ Biology: Children learn about animals, including humans, exploring nutrition, the skeletal and muscular systems and how these systems work together to create movement. They consider how living things depend on one another and their environment. Year 1,2 plants & habitats	Living things and animals Biology: Children explore animals, including humans, learning about the digestive system, teeth and food chains. They investigate living things and habitats, using classification keys and exploring how plants and animals are suited to their environments. Year 1,2,3 plants & habitats	Animals including humans Biology: Children develop their understanding of human growth and development, creating timelines to show the stages of growth and learning about puberty. EYFS understanding the world (growing up)	Electricity Physics: Children develop their understanding of light, exploring how light travels, how the eye sees and how optical instruments work. They investigate simple electrical circuits and how changing components or voltage affects their function. Year 3 light, Year 4 Earth and space

Core disciplinary threads progression – Working Scientifically

	Planning and asking Questions	Testing, observing and measuring	Recording Evaluating and concluding
Year 1	Think of & answer simple questions with reasons. Explain basic findings out loud. Talk about similarities & differences.	Observe using senses (see, touch, smell, hear, taste) & simple equipment. Perform simple tests & describe actions taken.	Identify & classify objects/observations. Show work with pictures, labels, captions, simple tables & charts using standard units. Use ICT to display work; make accurate measurements; use scientific vocabulary.
Year 2	Suggest ways to find things out using prompts. Say whether outcomes matched expectations. Suggest multi-sensory testing methods; explain non-matching expectations.	Carry out simple tests; explain why comparisons might be unfair. Measure using simple equipment & compare multiple items.	Group items by specific criteria (e.g. lay eggs); find simple patterns. Record via text, diagrams, pictures, charts & tables. Use key terms. Suggest multiple grouping methods with reasons; research using books/online.
Year 3	Suggest ways to investigate; record predictions beforehand. Plan & set up simple fair tests; explain need for data collection.	Measure accurately using standard units & varied equipment (incl. data-loggers). Record observations via labelled diagrams & charts.	Explain findings using science words; evaluate if evidence answers questions. Present via displays/bar charts; draw simple conclusions & suggest test improvements.
Year 4	Suggest ways to investigate; record predictions beforehand. Plan & set up simple fair tests; explain need for data collection.	Measure accurately using standard units & varied equipment (incl. data-loggers). Record observations via labelled diagrams & charts.	Explain findings using science words; evaluate if evidence answers questions. Present via displays/bar charts; draw simple conclusions & suggest test improvements.
Year 5	Set up fair tests, isolate variables & explain why they were controlled. Decide what data is needed & select best collection methods. Control variables accurately; use test results to make further predictions.	Take accurate measurements with varied standard equipment & units.	Find patterns in data; draw conclusions & predict from findings. Present data using diagrams, keys, tables & bar charts. Record complex data (line graphs/models); report via written conclusions & graph analysis.
Year 6	Plan/carry out investigations, controlling variables fairly. Make predictions supported by reasons; set up further comparative tests. Choose best testing methods with justification; vary single factor systematically.	Measure with increasing accuracy & precision. Record complex data using classification keys, line graphs & scatter graphs. Select appropriate units; explain why repeat readings are necessary.	Report findings via written explanations, displays & presentations; use graphs to answer queries. Identify data patterns, link to wider science & explain supporting evidence; suggest improvements.