Holy Cross Curriculum Progression
SCIENCE

EYFS links to primary science

EYFS learning experience	Scientific foundation	Links to later learning
Observe and sketch familiar plants, animals and natural features.	Careful observation; identifying, naming and describing living things.	Y1 plants and animals; Y2 habitats; Y4 classification.
Talk about local and contrasting environments.	Recognising similarities and differences; early comparison and grouping.	Y1 animal and plant groups; Y2 habitats; Y6 adaptation and evolution.
Notice weather, seasonal changes and day/night.	Describing change over time and noticing simple patterns.	Y1 seasonal changes; Y5 Earth and space.
Explore water, ice and other familiar materials.	Investigating properties and changes through first-hand experiences.	Y1–2 everyday materials; Y4 states of matter; Y5 properties and changes.
Develop healthy routines and make food choices.	Understanding basic needs, wellbeing and personal care.	Y1 body and senses; Y2 health, exercise, nutrition and hygiene; Y6 healthy lifestyles.
Ask questions, try things out and describe what happens.	Early enquiry: predicting, observing, comparing and communicating.	Working scientifically across Years 1–6.

Scientific knowledge and conceptual understanding – Years 1 to 6

Year 1

Strand	Progression of knowledge and understanding
Biology – Animals including humans	Recognise and name common animals from major groups, including fish, amphibians, reptiles, birds and mammals. Compare animals and distinguish between meat-eaters, plant-eaters and those that eat both. Identify and label main body parts, link senses to body parts and notice ways people are alike or different.
Biology – Plants	Identify common wild and garden plants, including edible plants and trees. Describe visible plant structures, recognise that plants grow, sort plants by observable features and distinguish evergreen from deciduous trees.
Chemistry – Everyday materials	Name familiar materials, describe simple properties, tell the difference between an object and what it is made from, and sort materials by those properties.
Physics – Seasonal changes	Observe changes across the year, describe typical seasonal weather and recognise that daylight hours vary.

Year 2

Strand	Progression of knowledge and understanding
Biology – Animals including humans	Explain the basic needs of animals and people for survival. Recognise that young animals develop into adults. Describe how exercise, balanced food choices, cleanliness and self-care support health.
Biology – Plants	Recognise edible plants such as fruit, vegetables and herbs. Observe seed growth, describe the conditions plants need to thrive and explain the main stages in a plant life cycle.

Biology – Living things and habitats	Distinguish living, once-living and never-living things. Identify organisms in different habitats and microhabitats, explain that habitats meet living things' needs and build simple food chains.
Chemistry – Everyday materials	Identify common materials, distinguish materials from the objects made with them and explore their suitability through practical investigation.

Year 3

Strand	Progression of knowledge and understanding
Biology – Animals including humans	Explain how skeletons help humans and other animals with support, protection and movement. Recognise the importance of suitable nutrition.
Biology – Plants	Investigate what plants need for healthy growth. Identify the roles of roots, stems, leaves and flowers; explore water movement through plants and the processes of pollination, seed production and dispersal.
Chemistry – Rocks	Compare rocks by appearance and physical characteristics. Explore how rocks form, describe layers of rock and soil and explain how fossils can form.
Physics – Forces and magnets	Compare movement across surfaces, explore magnetic attraction at a distance, sort magnetic and non-magnetic materials and predict attraction or repulsion between magnetic poles. Record observations with scientific terms.
Physics – Light	Explain that light is needed for sight, explore reflection and safe exposure to sunlight, and investigate how opaque objects form shadows. Predict shadow position and notice changes in shadow length.

Year 4

Strand	Progression of knowledge and understanding

Biology – Animals including humans	Identify the main parts of the digestive system and their roles. Compare types of teeth and their functions. Interpret food chains using the terms producer, predator and prey.
Biology – Living things and habitats	Group living things using shared characteristics and simple classification keys. Explore local organisms and consider how environmental change can affect their survival.
Chemistry – States of matter	Distinguish solids, liquids and gases. Use thermometers to measure temperature, observe heating and cooling changes, and explain evaporation and condensation within the water cycle, including the influence of temperature.
Physics – Electricity	Identify electrical appliances and build simple circuits using correctly named components. Investigate when a lamp works, switches and common conductors and insulators.
Physics – Sound	Explore how vibration produces sound and travels to the ear. Investigate how pitch and loudness relate to the vibrating source.

Year 5

Strand	**Progression of knowledge and understanding**
Biology – Animals including humans	Describe the stages of human development, including growth before birth, adolescence and later adulthood.
Biology – Living things and habitats	Explore the characteristics of living things and reproduction in plants and animals. Compare life cycles across different animal groups and describe the life cycle of flowering plants.
Chemistry – Properties and changes of materials	Classify materials by state and other properties. Use scientific language to describe them; investigate insulation and magnetism; explore dissolving, separating mixtures and changes that cannot easily be reversed.

Physics – Forces	Explain gravity as a force acting on falling objects. Investigate friction, air resistance and water resistance, and explore how levers, pulleys and gears change the effect of forces.
Physics – Earth and space	Describe the Sun, Earth and Moon as approximately spherical. Explain the movement of planets around the Sun and the Moon around Earth, and connect Earth's rotation with day, night and the Sun's apparent movement.

Year 6

Strand	Progression of knowledge and understanding
Biology – Animals including humans	Identify the main structures of the circulatory system and heart, explain how substances move around the body and describe choices that support a healthy lifestyle.
Biology – Living things and habitats	Classify living organisms into broad groups using characteristics and keys, including microorganisms. Recognise that scientists have developed different classification systems.
Biology – Evolution and inheritance	Explain how organisms suit their environments, how offspring resemble but differ from parents and how natural selection may contribute to change over time. Use fossil evidence to understand life in the distant past.
Physics – Electricity	Use standard circuit symbols and investigate how component behaviour changes, including the effects of cell number and voltage on lamp brightness. Recognise renewable and non-renewable energy sources.
Physics – Light	Explain light travelling in straight lines, how light enters the eye from sources or reflected objects, and why shadows have particular shapes and change during the day.

Working scientifically – progression links

Phase	Suggested enquiry progression
EYFS	Notice, explore, talk about observations, draw what is seen and ask simple questions.
Years 1–2	Ask questions, observe closely, compare and classify, carry out simple tests and record findings in pictures, words or tables.
Years 3–4	Pose relevant questions, plan fair comparisons, measure and record accurately, identify patterns and draw conclusions using evidence.
Years 5–6	Choose appropriate enquiry methods, control variables where needed, take repeated measurements, present data clearly and evaluate the reliability of evidence.