LEARNING LIGHTHOUSE
Rooted in TRADITION, Built for TODAY.

SCIENCE

Lower Key Stage 2 · Years 3–4 · Ages 7–9

TWO-YEAR ROLLING PROGRAMME

Our Lower Key Stage 2 Science programme inspires curiosity about living things, materials, physical forces and the wider universe. Interactive explanations, scientific models, demonstrations and enquiries help children develop scientific knowledge and reasoning.

How our rolling programme works

Years 3 and 4 learn together in one combined class. The school alternates Rolling Year A and Rolling Year B. A child can start in either cycle and move to the other the following academic year; **continuing pupils do not repeat the same annual programme.** Core scientific skills recur with new topics and increasing challenge.

ROLLING YEAR A

AUTUMN TERM | Plants, Living Things and Materials

Children investigate plant structures and growth, what distinguishes living from non-living things, and how scientific tests produce evidence. They explore solids, liquids and gases, mixtures, dissolving, filtration and recycling.

Learning objectives: Describe plant life cycles and growth needs; classify living things and materials; select methods for separating mixtures; make predictions, recognise fair tests and interpret observations.

SPRING TERM | Light, Animals and Living Systems

Pupils explore shadows and the behaviour of light through different materials before investigating human organs, animal groups, life cycles, food chains and fossils. They apply observation and research skills to scientific questions.

Learning objectives: Explain shadow formation and changes; classify transparent, translucent and opaque materials; compare life cycles and feeding relationships; and use evidence to support scientific conclusions.

SUMMER TERM | Forces, Magnetism and Space

Children investigate gravity, friction, force measurement and magnetic interactions. They then explore Earth, the Moon, lunar phases, the first Moon landing, and the planets of the Solar System using diagrams and models.

Learning objectives: Identify and measure forces, explain magnetic attraction and repulsion, interpret investigations, and use models to describe the Earth–Moon–Sun relationship and planetary movement.

AUTUMN TERM | Human Biology, Health and Energy

Pupils study skeletons, muscles and movement, differences among animal skeletons, infectious disease prevention, medicines and vaccinations. They investigate energy transfers and the ways electrical energy can be generated.

Learning objectives: Explain how bones and muscles work together; recognise ways infection can be prevented; describe simple energy transfers; and compare sources of electricity generation.

SPRING TERM | Materials, Earth Processes and Habitats

Children apply a simple particle model to materials and changes of state and distinguish physical changes from chemical reactions. They interpret experimental data and investigate Earth's structure, volcanoes, earthquakes, tsunamis and animal adaptations.

Learning objectives: Compare states of matter and changes to materials; read scientific results and graphs; explain important geological processes; and identify ways animals are adapted to habitats.

SUMMER TERM | Light, Space and Electricity

Pupils develop their understanding of light travelling in straight lines, reflection, day and night, and patterns in shadow lengths. They explore safe low-voltage electrical circuits, conductors and insulators, switches and the effects of changing components.

Learning objectives: Explain light and reflection using models; describe Earth's rotation and shadow patterns; identify essential circuit components; predict circuit behaviour and discuss electrical safety.

Our online teaching approach

Science is taught live on Wednesdays through guided questioning, images, demonstrations, simple data, interactive models and virtual investigations. Activities are differentiated for Year 3 and Year 4. Practical work uses safe teacher demonstrations or simulations when appropriate; no mains-electricity experiments are assigned to pupils.

This is an international, British-curriculum-informed programme with some interdisciplinary and extension topics; it is not represented as complete statutory Key Stage 2 Science coverage.

Rooted in Tradition, Designed for Today.