



# Curriculum Narrative - Science

## **Key Stage 1 Science at Our School**

In Key Stage 1, children are encouraged to explore the world around them through exciting and hands-on science topics.

We begin by looking at the **seasons** and how the world changes throughout the year. Children also start to understand how **day turns into night**, helping them make sense of the natural world.

As part of our work on **plants**, children learn to recognise different types of trees and how they change across the seasons. They begin to understand that trees are part of the plant kingdom and are introduced to how living things grow and change.

We also explore **animals, including humans**, and compare them with plants so children can clearly see the differences. They learn how to group animals by their features and think about what all living things need to survive.

Children are introduced to **different materials**, such as wood, plastic, glass, and metal. They learn new words like *transparent*, *translucent*, and *opaque*, and take part in fun investigations to explore how materials behave and what they are useful for.

In Year 1, we revisit some topics, such as animals, to help children remember and deepen their understanding. As they move into Year 2, children begin to connect everything they've learned. They study **living things and their habitats** and **how materials are used**, building on what they already know about animals, plants, and materials.

Throughout all our science learning, children are encouraged to ask questions, test ideas, and think like young scientists. Our aim is to build a strong foundation for future learning by making science fun, meaningful, and memorable.

## **Lower Key Stage 2 Science at Our School (Years 3 & 4)**

In Lower Key Stage 2, children build on what they learned in Key Stage 1 and begin to explore scientific ideas in more depth.

We begin with a topic on **Rocks**, which links back to their earlier learning about materials. Children learn how different types of rocks are formed and their uses. This topic is revisited later to help deepen and extend their understanding.

Our study of **Animals, including humans** continues, now focusing on how the human body works. Children learn about **skeletons and muscles**, and how they support movement and protect our bodies.

We introduce **Forces and Magnets**, helping children understand how things move. This includes contact forces (like pushing and pulling) and non-contact forces (like magnetism). Children take part in investigations to test their ideas and build their thinking skills.

The topic of **Light** helps children understand how we see things. They explore **light sources, shadows**, and how light behaves. Learning is made practical so that abstract ideas are easier to understand.

In our **Plants** unit, children develop a more detailed understanding of the parts of a plant and their functions, including how **pollination** and plant reproduction work.

The study of **Living Things and Their Habitats** focuses on **classification** – how scientists group animals and plants. Children learn key vocabulary (like *invertebrate*) and use their knowledge of different life forms to understand how they interact with their environments. They also explore how environments can change over time, both positively and negatively.

Children are introduced to **Electricity**, where they learn about electrical safety, how circuits work, and the names and functions of different components. They build simple circuits and test what happens when they change different variables.

In Year 4, **digestion** is the focus in our Animals, including humans unit. Children learn the full process of digestion, from eating to excretion. Common misconceptions, like thinking digestion starts in the stomach, are explored and corrected through engaging activities.

We also explore **States of Matter** (solids, liquids, and gases) using simple ideas about **particles** to help children understand how different materials behave. This learning connects to our Geography work on the **Water Cycle**.

Finally, children study **Sound**, learning how it is made, how it travels, and how we hear it. As with all topics, investigations and experiments help children apply what they've learned and develop their scientific enquiry skills.

### **Upper Key Stage 2 Science at Our School (Years 5 & 6)**

In Upper Key Stage 2, our science curriculum encourages children to deepen their understanding of the world through more complex and fascinating topics.

We begin with a study of **Materials and their Properties**, where children build on their earlier knowledge of solids, liquids, and gases. They learn about **solutions and mixtures**, and explore **reversible** changes (like melting) and **irreversible** changes (like burning). Understanding these ideas helps children make sense of how materials behave in everyday life.

In **Animals, including humans**, children explore how humans and other animals **grow and develop**. They look at life stages and how our bodies change over time.

Our topic on **Earth and Space** helps children understand our place in the universe. They learn about the **planets, orbits, day and night**, and **seasons**. Common misconceptions – like thinking the Sun moves across the sky or the Moon changes shape – are carefully explained using practical models and real-life examples.

In our **Forces** topic, children revisit and build on their earlier learning. They explore more complex ideas like **air resistance, water resistance**, and how **levers and pulleys** help us use force more efficiently. For example, they learn why a spanner with a longer handle makes it easier to turn a bolt. As part of this topic, pupils also learn about **Galileo Galilei**, an important historical figure in science.

The study of **Living Things and Their Habitats** continues, focusing on **life cycles and reproduction** in plants and animals. Children also learn how scientific understanding has changed over time. They study **Maria Merian**, a pioneer in the study of insects, and

explore how careful observation helped her make new discoveries. Later, children revisit classification and explore more complex groups of animals like **invertebrates**, including starfish, sea urchins, crustaceans, spiders, and insects. They also learn about **Carl Linnaeus**, who developed the system we still use today to classify living things. The topic of **Light** is revisited with a focus on the **physics** behind how light behaves. Children learn more advanced concepts such as how light travels, reflection, refraction, and shadows – helping them better understand the world around them. Throughout Upper Key Stage 2, children continue to develop their scientific enquiry skills – asking questions, making predictions, planning investigations, and drawing conclusions – as they prepare for the transition to secondary school science.