



# Our Lanesfield Science Journey

## Year 1

**Seasonal changes**  
Throughout the year, children will observe how the four seasons change and the weather associated with each season.

**Human and animals**  
Children will learn the parts of the human body including those associated with the senses. They will also discover a variety of animals and make links to carnivores, herbivores and omnivores.

**Every day materials**  
Children will identify, name and classify a variety of everyday materials based on their properties.

**Plants**  
Children will explore and describe the basic structure of: deciduous and evergreen trees; and common wild and garden plants.

## Year 2

**Living things and their habitats**  
Children will compare living, dead and things that use to live. They will also use the idea of a simple food chain to describe how animals obtain their food.

**Uses of everyday materials**  
Children will identify the suitability of a variety of every day materials and explore how the shapes of solid objects can be manipulated.

**Animals including humans**  
Children will learn that animals have offspring which develop into adults and explore the basic needs of animals for survival including diet and exercise.

**Plants**  
Children will observe and describe the needs of plants including how they grow from seeds into mature plants and stay healthy.

## Year 3

**Plants**  
Children will explore the needs of life and growth in plants including pollination. They will also identify and describe the plant's part's function through dissection.

**Light**  
Children will understand that light is reflected from surfaces and that light enables sight. They will also learn how to protect their eyes from sunlight. Additionally, they will explore shadow formations and patterns in how they change.

**Rocks**  
Children will classify different rocks based on their properties and appearance, including identifying and describing soil and fossil formation.

**Animals including humans**  
Children will explore nutrition and the human/animal body including: skeleton and muscle.

## Year 4

**Living things and their habitats**  
Children will use classification keys to help group, identify and name a variety of living things. They will also recognise environmental changes which can pose dangers to living things.

**Forces and magnets**  
Children will observe and group everyday materials based on their magnetic properties. Additionally, children will predict whether two magnets will attract or repel each other by linking their knowledge of magnets having two poles.

**Sound**  
Children will identify sound as vibrations through a medium, including the ear. They will find patterns in pitch and volume and how sounds become fainter as it becomes more distant.

**States of Matter**  
Children will compare materials into solids, liquids and gases including what happens when some materials are heated or cooled. Children will also link evaporation and condensation to the water cycle.

**Animals including humans**  
Children will identify producers, predators and prey by constructing and interpreting food chains and describe the digestive system in humans, including the function of our teeth.

**Electricity**  
Children will identify common electrical items and construct a series of circuits. They will also recognise common conductors and insulators.

## Thinking Actively in Social Context

At Lanesfield, we use Cornerstone TASCs to consolidate our pupil's learning. Through peer collaboration, children use their scientific knowledge to plan, investigate and evaluate various 'Prove it' tasks



## Year 5

**Properties and changes of materials**  
Children will build on their knowledge of solids, liquids and gases and learn that materials have different uses depending on their properties and that some materials combined can result in new ones. They will also understand that some of these changes are reversible and others are not.

**Earth and Space**  
Children will describe the planet's, Moon and Earth's movement relative to the Sun and the impact of their movement. They will also explore planets as spherical bodies.

**Forces**  
Children will explore gravity and the effects of friction, air and water resistance. They will also recognise that some forces can be manipulated through mechanisms.

**Living things and their habitats**  
Children will explore the life cycle of various animals including reproduction in animals and plants.

**Animals including humans**  
Children will describe the changes to humans as we develop to old age. They will also receive puberty talks with a specialist nurse.

## Year 6

**Living things and their habitats**  
Children will describe and give reasons why they classify animals, micro-organisms and plants into broad groups.

**Animals including humans**  
Children will identify and name parts and functions of the human circulatory system including how water and nutrients are transported. They will also recognise the impact of diet, exercise and lifestyles on bodily functions.

**Evolution and inheritance**  
Children will learn about how living things have adapted and changed over time and produced offspring.

**Light**  
Children will explain how light travels in straight lines including to our eyes. They will also explain the shape of shadows.

**Electricity**  
Children will develop and use circuit diagrams to associate the functions of different components to increase the brightness or sounds.