

Luxulyan School Cornerstones Science Long Term Overview

Year A			Term	Year B		
Beech Y1/2	Sycamore Y3/4	Oak Y5/6		Beech Y1/2	Sycamore Y3/4	Oak Y5/6
Everyday Materials	Skeletal and Muscular Systems	Circulatory System	Autumn 1	Human Survival	Digestive System	Forces and Mechanisms
Human Senses			Autumn 2	Habitats	Sound	Earth and Space
Seasonal Changes	Forces and magnets	Electrical Circuits and Components	Spring 1	Uses of Materials	States of Matter	Human Reproduction and Ageing
			Spring 2	Plant Survival	Grouping and Classifying	
Plant Parts	Plant Nutrition and Reproduction	Light Theory	Summer 1	Animal Survival	Electrical Circuits	Properties and Changes of Materials
Animal Parts	Light and Shadow	Evolution and Inheritance	Summer 2	Animal Survival		

Beech Class Cornerstones Science Long Term Overview

Year A		Term	Year B	
Everyday Materials	This project teaches children that objects are made from materials. They identify a range of everyday materials and their sources. Children investigate the properties of materials and begin to recognise that a material's properties defines its use.	Autumn 1	Human Survival	This project teaches children about the basic needs of humans for survival, including the importance of exercise, nutrition and good hygiene. They learn how human offspring grow and change over time into adulthood.
Human Senses	This project teaches children that humans are a type of animal, known as a mammal. They name body parts and recognise common structures between humans and other animals. They learn about the senses, the body parts associated with each sense and their role in keeping us safe.	Autumn 2	Habitats	This project teaches children about habitats and what a habitat needs to provide. They explore local habitats to identify and name living things and begin to understand how they depend on one another for food and shelter.
Seasonal Changes	This project teaches children about the seasons, seasonal changes and typical seasonal weather and events. They learn about measuring the weather and the role of a meteorologist. Children begin to learn about the science of day and night and recognise that the seasons have varying day lengths in the UK.	Spring 1	Uses of Materials	This project teaches children about the uses of everyday materials and how materials' properties make them suitable or unsuitable for specific purposes. They begin to explore how materials can be changed.
		Spring 2	Plant Survival	This project teaches children about the growth of plants from seeds and bulbs. They observe the growth of plants firsthand, recording changes over time and identifying what plants need to grow and stay healthy.
Plant Parts	This project teaches children about wild and garden plants by exploring the local environment. They identify and describe the basic parts of plants and observe how they change over time.	Summer 1	Animal Survival	This project teaches children about growth in animals by exploring the life cycles of some familiar animals. They build on learning about the survival of humans by identifying the basic needs of animals for survival, including food, water, air and shelter.
Animal Parts	This project teaches children about animals, including fish, amphibians, reptiles, birds, mammals and invertebrates. They identify and describe their common structures, diets, and how animals should be cared for.	Summer 2		

Sycamore Class Cornerstones Science Long Term Overview

Year A		Term	Year B	
Skeletal and Muscular Systems	This project teaches children about the importance of nutrition for humans and other animals. They learn about the role of a skeleton and muscles and identify animals with different types of skeleton.	Autumn 1	Digestive System	This project teaches children about the human digestive system. They explore the main parts, starting with the mouth and teeth, identifying teeth types and their functions. They link this learning to animals' diets and construct food chains to show the flow of energy.
		Autumn 2	Sound	This project teaches children about sound and how sounds are made and travel as vibrations through a medium to the ear. They learn about pitch and volume and find out how both can be changed.
Forces and magnets	This project teaches children about contact and non-contact forces, including friction and magnetism. They investigate frictional and magnetic forces, and identify parts of a magnet and magnetic materials.	Spring 1	States of Matter	This project teaches children about solids, liquids and gases and their characteristic properties. They observe how materials change state as they are heated and cooled, and learn key terminology associated with these processes.
		Spring 2	Grouping and Classifying	This project teaches children about grouping living things, known as classification. They study the animal and plant kingdoms and use and create classification keys to identify living things.
Plant Nutrition and Reproduction	This project teaches children about the requirements of plants for growth and survival. They describe the parts of flowering plants and relate structure to function, including the roots and stem for transporting water, leaves for making food and the flower for reproduction.	Summer 1	Electrical Circuits	This project teaches children about electrical appliances and safety. They construct simple series circuits and name their parts and functions, including switches, wires and cells. They investigate electrical conductors and insulators and identify common features of conductors. It also teaches children about programmable devices. They combine their learning to design and make a nightlight.
Light and Shadow	This project teaches children about light and dark. They investigate the phenomena of reflections and shadows, looking for patterns in collected data. The risks associated with the Sun are also explored.	Summer 2		

Oak Class Cornerstones Science Long Term Overview

Year A		Term	Year B	
Circulatory System	This project teaches children about the transport role of the human circulatory system, its main parts and their primary functions. They learn about healthy lifestyle choices and the effects of harmful substances on the body.	Autumn 1	Forces and Mechanisms	This project teaches children about the forces of gravity, air resistance, water resistance and friction, with children exploring their effects. They learn about mechanisms, their uses and how they allow a smaller effort to have a greater effect.
		Autumn 2	Earth and Space	This project teaches children about our Solar System and its spherical bodies. They describe the movements of Earth and other planets relative to the Sun, the Moon relative to Earth and the Earth's rotation to explain day and night.
Electrical Circuits and Components	This project teaches children about electrical circuits, their components and how they function. They recognise how the voltage of cells affects the output of a circuit and record circuits using standard symbols. It also teaches children about programmable devices, sensors and monitoring. They combine their learning to design and make programmable home devices.	Spring 1	Human Reproduction and Ageing	This project teaches children about animal life cycles, including the human life cycle. They explore human growth and development to old age, including the changes experienced during puberty and human reproduction.
		Spring 2		
Light Theory	This project teaches children about the way that light behaves, travelling in straight lines from a source or reflector, into the eye. They explore how we see light and colours, and phenomena associated with light, including shadows, reflections and refraction.	Summer 1	Properties and Changes of Materials	This project teaches children about the wider properties of materials and their uses. They learn about mixtures and how they can be separated using sieving, filtration and evaporation. They study reversible and irreversible changes, and use common indicators to identify irreversible changes.
Evolution and Inheritance	This project teaches children how living things on Earth have changed over time and how fossils provide evidence for this. They learn how characteristics are passed from parents to their offspring and how variation in offspring can affect their survival, with changes (adaptations) possibly leading to the evolution of a species.	Summer 2		