MILLBROOK COMMUNITY PRIMARY SCHOOL - SCIENCE - KNOWLEDGE PROGRESSION

This document shows the Knowledge Progression for National Curriculum objectives throughout the year 2024/25.

See specific Curriculum Maps for Pine, Cedar, Willow and Cherry for further breakdown of term time content.

	Autumn Term	Spring Term	Summer Term
PINE CEDAR	BIOLOGY Animals including Humans (human focus) ➢ identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.	CHEMISTRY Animals including Humans (animal focus) ➢ identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals ➢ identify and name a variety of common animals that are carnivores, herbivores and omnivores ➢ describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)	BIOLOGY Plants ➢ Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees ➢ Identify and describe the basic structure of a variety of common flowering plants, including trees.
	CHEMISTRY Everyday Materials	SUSTAINABILITY CARING FOR THE PLANET	PHYSICS Seasonal Changes *(completed throughout the year)*

MILLBROOK COMMUNITY PRIMARY SCHOOL - SCIENCE - KNOWLEDGE PROGRESSION

	➢ distinguish between an object and the material from which it is made ➢ identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock ➢ describe the simple physical properties of a variety of everyday materials ➢ compare and group together a variety of everyday materials on the basis of their simple physical properties.		➢ observe changes across the four seasons ➢ observe and describe weather associated with the seasons and how day length varies.
WILLOW CHERRY	BIOLOGY Animals including Humans ➢ find out about and describe the basic needs of animals, including humans, for survival (water, food and air) ➢ describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene	BIOLOGY Plants *(will revisit in Summer term)* ➢ observe and describe how seeds and bulbs grow into mature plants ➢ find out and describe how plants need water, light and a suitable temperature to grow and stay healthy	BIOLOGY Animals including Humans ➢ notice that animals, including humans, have offspring which grow into adults BIOLOGY Plants *(revisited)*
	CHEMISTRY Uses of Everyday Materials ➢ identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses	BIOLOGY Living things and their habitats ➢ explore and compare the differences between things that are living, dead, and things that have never been alive	SUSTAINABILITY WILDLIFE

	➢ find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching	➢ identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other ➢ identify and name a variety of plants and animals in their habitats, including micro-habitats ➢ describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.	
MAPLE HOLLY	BIOLOGY Animals including Humans ➢ identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat ➢ identify that humans and some other animals have skeletons and muscles for support, protection and movement.	SUSTAINABILITY ENERGY	BIOLOGY Plants ➢ identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers ➢ explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant ➢ investigate the way in which water is transported within plants

MILLBROOK COMMUNITY PRIMARY SCHOOL - SCIENCE - KNOWLEDGE PROGRESSION

			➢ explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal
	PHYSICS Electricity ➢ identify common appliances that run on electricity ➢ construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers ➢ identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery ➢ recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit ➢ recognise some common conductors and insulators, and associate metals with being good conductors.	CHEMISTRY Rocks ➢ compare and group together different kinds of rocks on the basis of their appearance and simple physical properties ➢ describe in simple terms how fossils are formed when things that have lived are trapped within rock ➢ recognise that soils are made from rocks and organic matter	BIOLOGY Living things and their habitats ➢ recognise that living things can be grouped in a variety of ways ➢ explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment ➢ recognise that environments can change and that this can sometimes pose dangers to living things.
HAZEL CHESTNUT SYCAMORE	BIOLOGY Animals including Humans ➢ describe the changes as humans develop to old age	SUSTAINABILITY GLOBAL WARMING	SUSTAINABILITY RENEWABLE ENERGY

MILLBROOK COMMUNITY PRIMARY SCHOOL - SCIENCE - KNOWLEDGE PROGRESSION

	PHYSICS Electricity ➢ associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit ➢ compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches ➢ use recognised symbols when representing a simple circuit in a diagram.	PHYSICS Earth and Space ➢ describe the movement of the Earth, and other planets, relative to the Sun in the solar system ➢ describe the movement of the Moon relative to the Earth ➢ describe the Sun, Earth and Moon as approximately spherical bodies ➢ use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky	BIOLOGY Living things and their habitats ➢ describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird ➢ describe the life process of reproduction in some plants and animals