Science Progression Overview

Autumn Term		EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		Understanding of the World links	Stone Age, Iron Age, Bronze Age	Romans in Britain	Anglo-Saxons and Vikings up to 1066	The Tudors	Civil War	Victorian – Harrogate and medical advancement
The man made world.	Materials	Materials – Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and paper. Know some simple properties of materials. Know how we can sort objects into groups based on their material. Know what materials can be recycled.	Children can distinguish and object from its material and name common materials. Wood, plastic, rock, glass	Children can identify and say why we would use certain materials for certain objects. Such as wood, plastic, rock and glass. Chn know that some materials can change shape by stretching, squashing and twisting.	Magnets Children can sort materials by properties including if they are magnetic. Chn know magnets have 2 sides. Children know magnets work at a distance.	Changes of state; Children can sort materials by state. Children know that some materials change state. Children know the terms evaporation and condensation. (water cycler to be covered in geography).	compare and group together everyday materials on the bases of the properties. Children can use the properties of materials to determine uses.	Reversible and irreversible reactions.
	Electricity		Children can identify items that require electricity,	Children can construct a simple circuit and recognise if the lamp will light.	Children can construct a simple circuit and recognise if the lamp will light. Children should also be able to suggest ways to debug the circuit. Children understand how to use a switch in a circuit.	Children understand the difference between insulators and conductors in an electrical 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	Revisit and recap of previous electricity objectives. Inc assessment Children should be taught the recognised symbols for the electrical components as they are introduced to them. This should be recapped regularly
			recognise that they need light in order to see things and that dark is the absence of light notice that light is reflected from surfaces	recognise that sounds get fainter as the distance from the sound source increases. recognise that shadows are formed when the light from a light source is blocked by an opaque object	find patterns in the way that the size of shadows change.	notice that light is reflected from surfaces. And that light travels in straight lines. use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.	identify how sounds are made, associating some of them with something vibrating	recognise that light from the sun can be dangerous and that there are ways to protect their eyes find patterns between the volume of a sound and the strength of the vibrations that produced it
Coppice 50		Eat fruit from a bush	Keep a weather diary	Visit a large town or city – York			Orienteer using a compass	

	Seasonal change's objective to run across the year	T0 occur through the year link to children understanding seasonal change.				Recap magnets and how compasses to link to orienteering. Poss make the orienteering course the end of unit quiz.	

Science Progression Overview

Spring Term		EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		Changes	United Kingdom – Great Fire of London	Europe - Ancient Greeks	Americas – Maya Civilisation	Africa – Ancient Egyptians	Asia – Genghis Khan	Victorian – Suffrage and social reform
Out of this world	Forces		Compare how things move on different surfaces	Rrecognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.	Notice that some forces need contact between two objects, but magnetic forces can act at a distance	Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object	Identify the effects of air resistance, water resistance and friction, that act between moving surfaces .	
	Space		Describe the Sun, Earth and Moon as approximately spherical bodies	Describe the movement of the Moon relative to the Earth	Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.	Understand how the tilt and rotation of the earth leads to seasonal change,	Describe the movement of the Earth, and other planets, relative to the Sun in the solar system recap that we see things due to reflected light.e.g the moon is not a light source.	
	Recap/other links	Humans - Know about the life cycle of a human and can talk about how I have changed since I was a baby. Know that there are similarities and differences between others and myself. Know the name of some parts of the body that can be seen. Know how to keep their bodies healthy, e.g., eating healthy food, exercising, screen-time, oral health. Know the names of body parts. Know humans have five senses.	Compare and group together a variety of everyday materials on the basis of their simple physical properties.	Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. find out about and describe the basic needs of animals, including humans, for survival (water, food and air) Recognise that vibrations from sounds travel through a medium to the ear	Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. compare and group together different kinds of rocks on the basis of their appearance and simple physical properties recognise that soils are made from rocks and organic matter.	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	Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets	Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood Recognise the impact of diet, exercise, drugs and lifestyle on the way their body's function Describe the ways in which nutrients and water are transported within animals, including humans.
Coppice 50		Seasonal changes	Seasonal changes					

Science Progression Overview							
Summer Term	**EYFS**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
	Community	United Kingdom – History of Harrogate and Coppice Valley	Europe – The French Revolution	Americas – Civil Rights Movement	Africa – Scramble for Africa	Asia - Birth of Modern Religions	Victorian – Empire and Exploration
The living world.	Plants	Know the correct basic scientific vocabulary to describe parts of plants. Know what plants need to survive and grow healthily. Know that plants need water, soil and sun to grow. Name some common plants. Know where some plants grow. Know that plants grow from a seed. Make close observations of plants in the natural world. Understand through books and observations that plants change and explain what a lifecycle is. Know and be able to explain a simple lifecycle, E.g., sunflower.	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.	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.	Flowering plants	Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. Classification trees and Linnaeus system.	

	Animals inc humans		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 Science	Find out about the basic needs of plants and animals (inc humans) for growth and survival. Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.	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 Construct and interpret a variety of food chains, identifying producers, predators and prey.	describe the simple functions of the basic parts of the digestive system in humans Identify the different types of teeth in humans and their simple functions Construct and interpret a variety of food chains, identifying producers, predators and prey. Identify that humans and some other animals have skeletons and muscles for support, protection and movement.	Describe the changes as humans develop to old age. Children understand the food webs and the effect of change in species number and types on a food web.	recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.
	Living things and habitats	Know and explain where a range of animals live e.g. talk about animals which live in our community e.g. talk about wildlife in Britain. Describing habitats and some microhabitats (animal homes). Make close observations of animals in the natural world. Make comparisons and identify similarities and differences. Understand through books and observations how animals change and grow.		Explore and compare the differences between things that are living, dead, and things that have never been alive 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 microhabitats	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 microhabitats	Describe in simple terms how fossils are formed when things that have lived are trapped within rock 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.	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.	Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals Give reasons for classifying plants and animals based on specific characteristics.
Additional items/coppice 50		Seasonal changes	Seasonal changes		Splash in a river– fieldwork skills. Poss local walk to Oak beck to look at habitats.			