Science Progression Overview

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Working scientifically	• Explore • Observe • Draw	• Identify and classify • Testing • Recording • Observing • Questioning	• Observe • Ask questions • Perform simple tests • Answer questions • record data	Observations Questions Measurements Data Identifying Enquiries Recording Fair tests	• Question, use evidence, measure, test, record, report, present. • Read, spell and pronounce scientific vocab.	• Question, use evidence, measure, test, record, report, present. • Read, spell and pronounce scientific vocab.	• Question, use evidence, measure, test, record, report, present. • Read, spell and pronounce scientific vocab.
Plants **Significant figures:** **Jospeh Banks** **George Washington Carver**	Explore the natural world around them, making observations and drawing pictures of animals and plants. Notice some of similarities and differences between the natural world	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	Observe and describe how seeds and bulbs grow into mature plants Sunflower & daffodil Find out and describe how plants need water, light and a suitable temperature to	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,			

	around them and contrasting environments, drawing on their experiences and what has been read in class.	plants, including trees. Trees - horse chestnut, bramble, sycamore, pine & pine cone, rhododendron, oak & acorn Deciduous and evergreen Flowers - snowdrops, crocus, daffodils, bluebells	grow and stay healthy.	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 Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. Radish, cress Plants for dispersal: Dandelion, Sycamore, Acorn, Berries, Peas Seeds, seed dispersal, water transportation,			

				functions of a plant.			
Animals including humans **Significant figures:** **Helen Keller**	Explore the natural world around them, making observations and drawing pictures of animals and plants.	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) Identify, name, draw and label the basic parts of the human	Notice that animals, including humans, have offspring which grow into adults 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.	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.	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 - teeth, mouth, oesophagus, stomach, small and large intestine, bowel Identify the different types of teeth in humans and their simple functions	Describe the changes as humans develop from birth to old age.	Describe the ways in which nutrients and water are transported within animals, including humans. Identify and name the main parts of the human circulatory system (heart, veins, arteries, chambers, valves, lungs, muscles) and describe the functions of the heart, blood vessels and blood Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function

		body and say which part of the body is associated with each sense. Birds – robin, sparrow, blue tit, woodpecker, black bird Woodland animals - grey squirrel, fox, rabbit, snake, frog, slugs and snails, woodlice Animals 1 hot/1 cold for each category – fish, amphibians, reptiles Name animals which are carnivore, herbivore and omnivore					
Living things and habitats **Significant figures:**	Explore the natural world around them, making		Explore and compare the differences between things		Recognise that living things can be grouped in a variety of ways	Describe the differences in the life cycles of a mammal, an	Describe how living things are classified into broad groups

Sir David Attenborough **Dame Jane Goodall** **Carl Linnaeus**	observations and drawing pictures of animals and plants. Notice some of similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.		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 micro-habitats (cliffs, beach, rockpools, sea, woodland)		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. Animals: Common toad, grass snake, snail, thrush, sparrow hawk, lichen, thistle, slug, blackberries, bank vole, stoat Habitats: Pond, hedgerow, woodland, field	amphibian, an insect and a bird Describe the life process of reproduction in some plants and animals. Dragon Flies, Dandelions, Sycamore, Buttercups, ladybird Mammal, amphibian, insect, bird	according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals Give reasons for classifying plants and animals based on specific characteristics.

			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. Woodland animals, habitats, life cycles and food chains Seaside animals, habitats, life cycles and food chains		Changing environments		
Evolution and inheritance **Significant figures:** **Charles Darwin** **Alfred Wallace**							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. Moths, Tigers (Sumatran), orangutans, elephants, Burmese python, penguins (Humboldt, Rockhopper &

							emperor), Asian jungle, Antarctic
Rocks **Significant figures:** **Mary Anning**	Explore the natural world around them, making observations and drawing pictures of plants and animals			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.			
Everyday Materials	Recognise some important changes and processes in the natural world around them, including the	Distinguish between an object and the material from which it is made Identify and name a variety	Identify and compare the suitability of a variety of everyday materials, including wood,				

	seasons and changing states of matter	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. Sorting materials Naming materials Comparing materials	metal, plastic, glass, brick, rock, paper and cardboard for particular uses Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. Materials – fit for purpose investigation Materials – Ship investigation Waterproof and durability Materials investigation Which materials burn best? Build up the houses to set fire too				

Properties and changes of materials	Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.					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 know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through	

						filtering, sieving and evaporating give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic demonstrate that dissolving, mixing and changes of state are reversible changes explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes	

						associated with burning and the action of acid on bicarbonate of soda.	
States of matter	Recognise some important processes and changes in the natural world around them, including the seasons and changing states of matter.			Compare and group materials together, according to whether they are solids, liquids or gases Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) identify the part played by evaporation and condensation in the water cycle and associate			

				the rate of evaporation with temperature.			
Light				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 light from the sun can be dangerous and that there are ways to protect their eyes Recognise that shadows are formed when the light from a light source is blocked by a solid object Find patterns in the way that the size of			Recognise that light appears to travel in straight lines Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes Use the idea that light travels in straight lines to

				shadows change.			explain why shadows have the same shape as the objects that cast them.
Sound					Identify how sounds are made, associating some of them with something vibrating recognise that vibrations from sounds travel through a medium to the ear Find patterns between the pitch of a sound and features of the object that produced it Find patterns between the volume of a sound and the strength of the vibrations that produced it		

					Recognise that sounds get fainter as the distance from the sound source increases		
Forces and magnets **Significant figures:** **Sir Isaac Newton**				Compare how things move on different surfaces Notice that some forces need contact between two objects, but magnetic forces can act at a distance Observe how magnets attract or repel each other and attract some materials and not others Compare and group together a variety of everyday materials on the		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 Recognise that some mechanisms, including levers, pulleys and	

				basis of whether they are attracted to a magnet, and identify some magnetic materials Describe magnets as having two poles Predict whether two magnets will attract or repel each other, depending on which poles are facing.		gears, allow a smaller force to have a greater effect.	
Seasonal changes	Recognise some important processes and changes in the natural world around them, including the seasons and changing states of matter.	Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies.					

		Trees Four seasons Weather Throughout year					
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.	
Electricity **Significant figures:** **Thomas Edison** **Lewis Latimer** **Granville T Woods**					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		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.

					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.		