EYFS							
Enquiry	N/C Link	Knowledge	Skills	Skills	Vocabulary		
'Understanding the World' area of the EYFS Curriculum. It is introduced indirectly through activities that encourage every child to explore, problem solve, observe, predict, think, make decisions and talk about the world around them. Our children will explore creatures, people, plants and objects in their natural environments.	EYFS- Understanding the world	Make sense of the world through personal experience. children's emerging sense of place, such where they live and other familiar places, and their sense of time. Understand what happens over a day. They're aware of morning, afternoon, evening and night time. Significant events in the child's life. Extend understanding of their local area: gardens, woodland, plants, flowers, animals, vehicles and buildings. Expose children to natural materials, close observation of minibeasts such as the lifecycle of a butterfly, experimenting with ice, materials that float and sink, how wheeled toys move and how to make shadows using torches in dark spaces.	Everyday Materials • Children know about similarities and differences in relation to places, objects, materials and living things. • Sort materials using criteria such as soft, hard, flexible, plastic, wood, metal. Animals including Humans • Make observations of animas and explain why things occur and talk about changes (ELG). Look at different animals and their body parts. Talk about why they have them e.g. beak, wings, leg. Talk about the differences between animals Plants • Make observations of plants and explain Why things occur and talk about changes (ELG). • Examine change over time, for example, growing plants. Talk about the parts and what happens to them. Use language e.g. leaves, roots, stem, petal.	Seasonal Changes - What happens in different seasons? • Discuss features of the environment and how environments may vary from one another (ELG). • Talk about the changes that each seasons brings in relation to their environment: the clothes they wear, the weather and the plants Working Scientifically • Looks closely at similarities, differences, patterns and change (40-60). Make observations and explain observations (ELG). • Carry out observations on changes such as melting ice, floating and sinking, magnets. Children question why things happen having their own ideas.	Number Number Number Number Speak		

	4	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	Enquiry	Which materials should the three little pigs have used to build their house?	Why would a dinosaur not make a good pet?	How can Usain Bolt move so quickly?		Do all animals and plants start life as an egg?	Can we find out if the spider and Fly are related?
	NC link	Everyday Materials	Living Things and their Habitats	Animals Including Humans	Animals Including Humans	Living Things and their Habitat	Living Things and their Habitat
AUTUMN TERM 1	Knowledge	 Distinguish between an object and the materials 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 materials Compare and group together a variety of everyday materials on the basis of their simple physical properties 		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.	 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, 	Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird	Describe how living things are classified into broad groups 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 characteristic
	Skills	 The idea here is to test each of these three materials to find out about their qualities. They should perform simple tests to explore questions such as: 'What is the best material for? 	 Making sure that children work out what a 'fair test' is. Observing and recording the growth of a variety of plants as they change over time from a seed or bulb, or observing similar plants at different stages of growth Setting up a comparative test to show that plants need light and water to stay healthy. Sorting and classifying things according to whether they are living, dead or were never alive Recording their findings using charts 	with and without skeletons and observing and comparing their movement • Exploring ideas about what would happen if humans did not have skeletons.	 Comparing the teeth of carnivores and herbivores, and suggesting reasons for difference Finding out what damages teeth and how to look after them. They might draw and discuss their ideas about the digestive system and compare them with models or images. 	cycles of plants and animals in their local environment with other plants and animals around the world (in the rainforest, in the oceans, in desert areas and in prehistoric times)	 Devise classification systems and keys to identify some animals and plants in the immediate environment. They could research animals and plants in other habitats and decide where they belong in the classification system
	Vocabulary	Wood, plastic, glass, metal, water, rock, soft, hard, transparent	Living, non-living, habitat, food chain	Joints, skeleton, muscles, nutrition, diet, digestion.	Digestive system., teeth (canines, molars) predators, prey, herbivores, carnivores	Human, development, mammal, amphibian, environment,	Adaptations, environment, mammals, reptiles, amphibians, invertebrate and vertebrae, classification

		YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	Enquiry	Why does it get darker earlier in winter?	What made that racket?	What do rocks tell us about how the world was formed?	Why is the sound that '' make enjoyed by so many?	Will we ever send Benjamin Alvin Drew to the moon?	What would a journey through your body look like?
	NC link	Seasonal Changes	Sound	Rocks	Sound	Earth and Space	Animals (including Humans)
A U T U M	Knowledge	Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies	identify how sounds are made, associating some of them with something vibrating	 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. 	 Identify how sounds are made, associating some of them vibrations Recognise that vibrations from sound travel through a medium to the ear Find patterns between the pitch of a sound & features of the object. Find patterns between the volume of a sound and the strength of the vibrations that produced it Recognise that sounds get fainter with increased distance from the source. 	 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. 	 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 bodies function Describe the ways in which nutrients and water are transported within animals, including humans.
T E R M	Skills	 Exploring shiny things and grouping them according to whether they shine in the dark or not. They can go on a shadow hunt and think about what is similar about the places where shadows are found (that is, that there is a light source and something is blocking it). 	Pupils make and play their own instruments by using what they have found out about pitch and volume	Observing rocks, including those used in buildings and gravestones, and exploring how and why they might have changed over time; using a hand lens or microscope to help them to identify and classify rocks according to whether they have grains or crystals, and whether they have fossils in them.	 Finding patterns in the data (for example, blowing across the top of bottles, changing elastic bands). They might make earmuffs from a variety of different materials to investigate which provides the best insulation against sound. They could make & play their own instruments by using what they have found out about pitch & volume 	Compare the time of day at different places on the Earth through internet links and direct communication Create simple models of the solar system; construct simple shadow clocks and sundials, calibrated to show midday and the start and end of the school day Find out why some people think that structures such as Stonehenge might have been used as astronomical clocks.	Explore the work of scientists and scientific research about the relationship between diet, exercise, drugs, lifestyle and health.
	Vocabulary	Winter, spring, summer, autumn	pitch, volume, medium, vibrations, insulation,	rough, smooth, shiny, dull, hard, sedimentary	pitch, volume, medium, vibrations, insulation, ear drum, pinna, auditory nerve	Earth, moon, planets, axis, solar system, eclipse, satellite, lunar, universe	Circulatory system, Heart, blood vessels, Diet, exercise and drugs, Transport of nutrients through the body

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
Enquiry	Why are humans not like tigers?	How can we grow our own Salad?	How do Plants and flowers flourish?	How would we survive without water?	Is it true, everything that goes up must come down?	Have we always looked like this?
NC link	Animals including humans	Plants	Plants	States of matter	Forces	Evolution and Inheritance
Knowledge	 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 body and say which part of the human body is associated with each sense. 	Observe and describe how seeds and bulbs grow into mature plants Find out and describe how plants need water, light and suitable temperature to grow and stay healthy.	 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 Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. 	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. WOW	 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 gears, allow a smaller force to have a greater effect 	 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.
Skills S P R I N G T E R M	Using their observations to compare and contrast animals at first hand or through videos and photographs, describing how they identify and group them Grouping animals according to what they eat; and using their senses to compare different textures, sounds and smells.	 Making sure that children work out what a 'fair test' is. Observing and recording the growth of a variety of plants as they change over time from a seed or bulb, or observing similar plants at different stages of growth Setting up a comparative test to show that plants need light and water to stay healthy. 	 Children will be provided with many opportunities to carry out their own research based on different aspects of plants they will have looked at. Comparing the effect of different factors on plant growth, for example, the amount of light, the amount of fertiliser; discovering how seeds are formed by observing the different stages of plant life cycles over a period of time Looking for patterns in the structure of fruits that relate to how the seeds are dispersed. 	 Huge opportunities here for children to work scientifically by setting up experiments and investigations associated with changing state. Exploring the effect of temperature on substances such as chocolate, butter, cream (for example, to make food such as chocolate crispy cakes and ice-cream for a party 	 Explore falling paper cones or cupcake cases, and design and make a variety of parachutes and carrying out fair tests to determine which designs are the most effective. They might explore resistance in water by making and testing boats of different shapes. They might design and make artefacts that use simple levers, pulleys, gears and/or springs and explore their effects. 	 Observe and raise questions about local animals and how they are adapted to their environment; compare how some living things are adapted to survive in extreme conditions, for example cactuses, penguins and camels. They might analyse the advantages and disadvantages of specific adaptations, such as being on two feet rather than four, having a long or a short beak, having gills or lungs, tendrils on climbing plants, brightly coloured and scented flowers.
Vocabulary	fish, amphibians, mammals, reptiles, insects, birds	Fair test, light, seeds, leaves, soil	Pollination, light, water, seeds, germination	solids, liquids, gases, materials, temperature, degrees, Celsius, evaporation, condensation, heating, cooling	Force, air resistance, gravity, push and pull, friction, mass, weight, pull force, push force, water resistance	fossils, offspring, Darwin, human skeleton,

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
Enquiry	What would Beegu think of life on Planet Earth?	What comes first the chicken or the egg?	Are you attractive enough?	How could we cope without electricity for one day?	How different will you be when you are as old as your grandparents?	How can you light up your life?
NC link	Materials	Animals including Humans	Forces and Magnets	Electricity	Animals including Humans	Light
Knowledge	 Know the material that an object is made from. Know about the properties of everyday materials. Distinguish between an object and the material it is made from. Know the difference between a range of materials (Water, rock, plastic. Glass, wood) Group objects based on the material they are made from. 	Research Habitats, how do we adapt/ how are we suited to our habitats. Life processes exploring food chains.	 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 basis of whether they are attracted to a magnet, and identify some magnetic materials Describe magnets as having 2 poles Predict whether two magnets will attract or repel each other, depending on which poles are facing. 	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	What were the stages of growth in Humans Know the life cycle of different things Know the process of reproduction in both plants and animals.	 Recognise that light appears to travel in straight lines Use the idea that light travels in straight lines to explain that objects
Skills	Performing simple tests to explore questions. For example 'what is the best material for an umbrella?, bookshelf? A leotard?	Children will understand the life cycle, know why exercise and a balanced diet and good hygiene are important.	·	Observing patterns, for example, that bulbs get brighter if more cells are added, that metals tend to be conductors of electricity, and that some materials can and some cannot be used to connect across a gap in a circuit.	 Compare data about the gestation periods of humans and other animals or find out and record the length and mass of a baby as it grows. Recording data and results using scientific classifications and tables. 	
Vocabulary	Material, suitability, purpose, solid, transparent, fragile, durable.	chicks, incubation, habitats, life processes	poles, magnetic, attract, repel, force, pull, push	electricity, circuit, conductors and insulators, battery, bulbs, component	gestation, mass, puberty, life expectancy,	light, mirrors, reflection, periscope, shadows,

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
Enquiry	Which birds and plants would Little Red Riding Hood find in Bunny park? (Focus on Plants rather than animals)	How will 5 a day help me to be healthy?	How far can you throw your shadow?	Which wild animals thrive in our locality?	Could you be the next CSI investigator?	Could you be the next Nintendo apprentice?
NC link	Plants; Animals including Humans	Animals, including humans	Light	Living things and their Habitats	Properties and Changes of Materials	Electricity
Knowledge S U M M E R T E R M	Identify and name a variety of common, wild and green plants, including deciduous and evergreen trees Identify and describe the basic structure of a variety of common flowering plants, including trees; Identify and name a variety of common animals, including fish, amphibians, reptiles, birds and mammals;	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 amount of different types of food, and hygiene	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 shadows change.	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	 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 tests, for the particular uses of everyday materials, including metals, wood and plastic Demonstrate that dissolving, mixing & changes of state are reversible Explain that some changes result in the formation of new materials, & that this kind of change is not usually reversible, including changes associated with burning & the action of acid on bicarbonate of soda 	 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.
Skills	 Observing closely, using magnifying glasses, and comparing and contrasting familiar plants Describing how they were able to identify and group them, and drawing diagrams showing the parts of different plants and trees. Children to keep records of how plants have changed over time, for example, the leaves falling off trees and buds opening; and compare and contrast how different plants change over time. 	Children to conduct a survey to see how many children eat at least one piece of fruit each day and which is the most popular fruit. Observing, asking questions about what humans need to stay healthy	 Set up a fair test to see what happens when there is more than one source of light and record findings. Looking for patterns in what happens to shadows when the light source moves or the distance between the light source and the object changes. 	 Explore local small invertebrates and using guides or keys to identify them Making a guide to local living things Raising and answering questions based on their observations of animals and what they have found out about other animals that they have researched. 	 Carry out tests to answer questions such as 'Which materials would be the most effective for making a warm jacket, for wrapping ice cream to stop it melting, or for making blackout curtains?' They might compare materials in order to make a switch in a circuit. They could observe and compare the changes that take place, for example when burning different materials or baking bread. 	 Systematically identifying the effect of changing one component at a time in a circuit Designing and making a set of traffic lights, a burglar alarm or some other useful circuit.
Vocabulary	Amphibians, mammals, reptiles, insects, deciduous, evergreen, leaves, flowers (blossom), petals, fruit, roots, bulb, seed, trunk, branches, stem	Nutrition, growth, hygiene, diet	source, reflection, sun, uv rays, shadow	Adaptations, environment, mammals, reptiles, amphibians, invertebrae and vertebrae, classification	solids, liquids, gases, temperature, ardness, solubility, transparency, solution, fair test, dissolving, reversible/irreversible changes, chemical reaction, substance, gas, light, heat, colour, change, sieving, filtration, soluble, insoluble, mixture	Component, bulb, position, battery, circuit

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
Enquiry	Would Mrs Crosdale enjoy a trip to	What would Traction Man use to	Will we ever live on another Planet	What materials should I use to make	How can we find out what Dinosaurs	
	outer space?	build our school?		a kite? (DT Link)	were like?	How is the climate changing?
NC link	Earth and Space	Uses of Everyday Materials	Earth and Space	Materials	Rocks and fossils	Plants/ Earth and space
Knowledge	 Offer an introduction to the idea of outer space, what is outer space? What could we expect to find in outer space? What preconceptions do we already have? What do we expect to discover? 	 Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, rock, brick, 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. 	 Exploring outer space, what do we already know? Exploration of planets What do we already know of these planets? 	 Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, rock, brick, 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. 	Describe how fossils are formed when remains become trapped between layers of rock How do we use these fossils to develop our understanding?	 Exploring recent trends in climate change. What is happening on the ground? Why is this happening? What is the human impact?
Skills S U M	Using technology to support our learning, can we complete a research project to collect information about outer space?	 Comparing the uses of everyday materials in and around the school with materials found in other places (at home, on the journey to school, on visits, and in stories, rhymes and songs) Observing closely, identifying and classifying the uses of different materials, and recording their observations. 	•	Examining the uses of everyday materials in and around the school and classifying the uses of different materials, and recording their observations.	What is fossilisation? Can we understand the processes at work?	 Use a range of equipment with increasing accuracy to collate and record data. Report and present findings from enquiries- discuss trust in results Identify scientific evidence that has been used to support or refute ideas or arguments.
Vocabulary R T E R M	outer space, atmosphere, gravity, planets	Wood, plastic, glass, metal, water, rock, soft, hard, transparent, malleable, stretching, bending		Wood, plastic, glass, metal, water, rock, soft, hard, transparent, malleable, stretching, bending opaque, translucent, transparent, brittle, rough, synthetic, flexible, waterproof, absorbent	Fossilisation, preservation, sediment	Global warming, emissions, fossil fuels, global average temperature. Deforestation.