	Understanding the World	Communication and Language	Personal, Social and Emotional Development	
Nursey	 Use all their senses in hands-on exploration of natural materials. Explore collections of materials with similar and/or different properties. Talk about what they see, using a wide vocabulary. Begin to make sense of their own lifestory and family's history. Explore how things work. Notice the weather and changes in the different seasons. Plant seeds and care for growing plants. Understand the key features of the life cycle of a plant and an animal sunflower, caterpillar Begin to understand the need to respect and care for the natural environment and all living things around them. Explore and talk about different forces they can feel. Talk about the differences between materials. 	Respond to how and why questions. Ask simple questions. Learn new vocabulary.	Observe what happens to our bodies when we exercise. Have an awareness of what to eat and drink in order to keep our body healthy. Have an awareness of how to keep our teeth healthy.	
Reception	 Use all their senses in hands-on exploration of natural materials and name the five senses - sight, touch, smell, hearing, taste. Group collections of materials with similar and/or different properties. Talk about what they see, using a wide vocabulary and build on existing vocabulary and knowledge. Explore how things work and how and why things work and happen. Understand the effect of changing seasons on the natural world around them - naming the seasons and noticing the different features - Spring, Summer, Autumn, Winter. Plant seeds, care for growing plants and observe changes over time. Understand the need to respect and care for the natural 	 Ask how and why questions. To share prior knowledge. Build upon, learn and use new vocabulary. Describe events in some detail. Use talk to help work out problems, organise thinking and activities and to explain how things work and why they might happen. 	Observe and talk about what happens to our bodies when we exercise. Have an awareness and understanding of what to eat and drink in order to keep our body healthy. To know about different food groups. Have an awareness and understanding of how to keep our teeth healthy.	

ELG	environment and all living things in the wider world. • Understand the key features of the life cycle of a plant and an animal - vegetable, ladybird • Explore, experiment and talk about different forces they can feel. • Talk about the differences between materials and changes they notice. ELG: The Natural World Children at the expected level of development will: • Explore the natural world around them, making observations and drawing pictures of animals and plants. ELG: Past and Present Children at the expected level of development will: • Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. • Understand some important processes and changes in the natural world around them, including the seasons	ELG: Listening, Attention and Understanding Children at the expected level of development will: • Make comments about what they have heard and ask questions to clarify their understanding.	ELG: Managing Self Children at the expected level of development will: • Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.	
	and changing states of matter. Autumn	Spring	Summer	Throughout the year
Year 1	Everyday Materials • 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.	Animals Including Human • 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 body is associated with each sense.	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.	Seasonal Changes Observe changes across the four seasons. Observe and describe weather associated with the seasons and how day length varies.
Enquiry Question & Assessment Questions	 What are everyday materials? I can distinguish between an object and the material it is made from. I can explain the materials that an object is made from. 	 What are bodies and what can they do? I can name a variety of animals including fish, amphibians, reptiles birds and mammals. I can classify and name animals by what they eat (carnivore, herbivore and omnivore). 	 What plants and trees grow near our school? I can name a variety of common wild and garden plants. I can name the petals, stem, leaf and root of a plant. I can name the roots, trunk, branches and leaves of a tree. 	How do the seasons change? I can observe and comment on changes in the seasons.

VOCAB	 I can name wood, plastic, glass, metal, water and rock. I can describe the properties of everyday materials. I can group objects based on the materials they are made from. wood metal glass soft hard	 I can sort animals into categories (including fish, amphibians, reptiles, birds and mammals). I can sort living and non-living things. I can name the parts of the human body that I can see. I can link the correct part of the human body to each sense. Animals- mammal bird reptile amphibian fish	flower stem roots plant leaf/leaves fruit deciduous	I can name the seasons and suggest the type of weather in each season. Weather sunny rainy	
	bendy stretchy material plastic fabric recycle smooth shiny properties waterproof	carnivore herbivore omnivore warm-blooded cold- blooded Humans- sight hearing touch smell taste senses	oded Wo		
Previous Learning	RECEPTION Exploring different materials using 'Investigation Area'.	RECEPTION Exploring using small world play and also story books.	RECEPTION Garden projects	RECEPTION Daily weather Each season the children will go on a walk(same route) and discuss the changes.	
Future Learning	YEAR 2 Everyday Materials- Can we change materials?	YEAR 2 Animals Including Humans- What is alive, dead or was never alive?	YEAR 2 Plants- Can living things live forever?		
Year 2	Living Things and Habitats 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 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	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. • Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.	Animals Including 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.	Plants 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.	
Enquiry Question & Assessment Questions	What is alive, dead or was never alive? I can identify things that are living, dead and never lived.	What are objects made from and how can they be changed?	 How do we grow and survive? I can explain the basic stages in a life cycle for animals, including humans. I can describe what animals and humans need to survive. 	How do plants grow and stay healthy?	

	 I can describe how a specific habitat provides for the basic needs of things living there (plants and animals). I can identify and name plants and animals in a range of habitats. I can match living things to their habitat. I can describe how animals find their food. I can name some different sources of food for animals. I can explain a simple food chain. 	 I can identify and name a range of materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard. I can suggest why a material might or might not be used for a specific job. I can explore how shapes can be changed by squashing, bending, twisting and stretching. 		I can describe why exercise, a balanced diet and good hygiene are important.	 I can describe how seeds and bulbs grow into plants. I can describe what plants need in order to grow and stay healthy (water, light & suitable temperature).
VOCAB	shelter plants trees humans animals food minibeasts	·		life cycle growth reproduction generation child death birth	Blossom bark light shade sun warm cool healthy growth
Previous Learning	YEAR 1 Seasonal Changes- Do living things change or stay the same?	Everyday Materials- What are things made from?		YEAR 1 Animals Including Humans- What are bodies and what can they do?	YEAR 1 Plants- What is alive?
Future Learning	YEAR 4 Living Things and Habitats- What is the same and what's different?			YEAR 3 Animals Including Humans- How do living things work?	YEAR 3 Plants- Do living things need different things to survive?
Year 3	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.	Recognise that they need light in order to see things, and that dark is the absence of light. Notice that light is Compare how things move on different surfaces. Notice that some forces need contact between two objects, but magnetic		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.	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. • Explore the part that flowers play in the life cycle of flowering plants,

Enquiry Question & Assessment Questions	What are rocks? I can compare and group rocks based on their appearance and physical properties, giving a reason. I can describe how fossils are formed. I can describe how soil is made. I can describe and explain the difference between sedimentary and igneous rock.	What is the dark? I can describe what dark is (the absence of light). I can explain that light is needed in order to see. I can explain that light is reflected from a surface. I can explain and demonstrate how a shadow is formed. I can explore shadow size and explain. I can explain the danger of direct sunlight and describe how to keep protected.	Describe magnets as having two poles. Predict whether two magnets will attract or repel each other, depending on which poles are facing. What can magnets do?	How do living things keep healthy and move? I can explain the importance of a nutritious, balanced diet. I can explain how nutrients, water and oxygen are transported within animals and humans. I can describe and explain the skeletal system of a human. I can describe and explain the muscular system of a human. I can describe the purpose of the skeleton in humans and animals.	including pollination, seed formation and seed dispersal. Do living things need different things to survive? I can identify and describe the function of different parts of flowing plants and trees. I can explore and describe the needs of different plants for survival. I can compare how different plants need different environments to survive. I can explore and describe how water is transported within plants. I can explore the part that flowers play in the lifecycle of flowering plants, including pollination, seed formation and seed dispersal.
VOCAB	hard soft texture absorbent natural man made fossil	opaque transparent reflection fluorescent UV rays shadow sun protection	force magnet attract repel magnetic material compass	skeleton muscles tendons carbohydrates protein fibre fat	photosynthesis pollen pollination seed carbon dioxide water transportation dispersal petal anther stigma
Previous Learning	YEAR 1 Everyday Materials- What are things made from?		YEAR 2 Everyday Materials-Can we change materials?	YEAR 2 Animals Including Humans- What is alive, dead or was never alive?	YEAR 2 Plants- Can living things live forever?

Future	YEAR 6	YEAR 6	YEAR 5	YEAR 4		YEAR 5
Learning	Evolution- How do things change over time and place?	Light- How do we see?	Forces- How do things move?	Animals Including Humans- What a food we eat?	Living Things in their Habitat- Do all lifecycles look the same?	
Year 4	• 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.	Animals Including Humans 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.	Living Things 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.	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.		
Enquiry Question & Assessment Questions	How and why do materials change state of matter? I can group materials based on their state of matter (solid, liquid, gas). I can describe how some materials can change state. I can explore how materials change state. I can measure the temperature at which materials change state. I can describe the water cycle. I can explain the part played by evaporation and condensation in the water cycle.	What does our body do with the food we eat? I can identify and name the parts of the human digestive system. I can describe the functions of the organs in the human digestive system. I can identify and describe the different types of teeth in humans. I can describe the functions of different human teeth. I can use food chains to identify producers, predators and prey.	What is the same and what's different? I can group living things in different ways. I can use classification keys to group, identify and name living things. I can create classification keys to group, identify and name living things (for others to use). I can describe how changes to an environment could endanger living things.	 Can we control electricity? I can identify and name appliances that require electricity to function. I can construct a series circuit. I can identify and name the components in a series circuit (including cells, wires, bulbs, switches and buzzers). I can draw a circuit diagram. I can predict and test whether a lamp will light within a circuit. I can describe the function of a switch in a circuit. I can describe the difference between a 	How do we hear different sounds? I can describe how sound is made. I can explain how sound travels from a source to our ears. I can explain the place of vibration in hearing. I can explore the correlation between pitch and the object producing a sound. I can explore the correlation between the volume of a sound and the strength of the vibrations that produced it.	

VOCAB	Solid liquid gas state change melting freezing melting point boiling point evaporation temperature water cycle		I can construct food chains to identify producers, predators and prey. Humans- Digestive system digestion saliva oesophagus stomach small intestine nutrients large intestine rectum anus incisor canine molar premolars, Animals- herbivore carnivore omnivore producer predator prey food chain	classification classification keys environment habitat human impact positive negative hibernate	conductor and insulators; giving examples of each. electricity electrical appliance/device mains, electrical circuit complete circuit cell bulb switch buzzer motor conductor insulator metal non-metal symbol	I can describe what happens to a sound as it travels away from its source. Sound source vibrate, vibration travel pitch (high, low) volume faint loud insulation	
Previous Learning	YEAR 2 Everyday Materials- Can we change materials?		YEAR 3 Animals Including Humans-How do Living things work?	YEAR 3 Plants- Do living things need different things to survive?			
Future Learning	YEAR 5 Properties and Changes of Materials- What are things made from and why?		YEAR 5 Animals Including Humans-	YEAR 5 Living things in their Habitats- Do all lifecycles look the same?	YEAR 6 Electricity- Can we vary the effects of electricity?		
Year 5	Forces • 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	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	 Properties and Changes of Materials 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. 		Animals Including Humans • Describe the changes as humans develop to old age.	Living things in 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.	

	friction that act	spherical bodies. •	Demonstrate that dissolving, mixing and changes of			
	between moving	Use the idea of the	state are reversible changes.			
	surfaces.	Earth's rotation to	• Explain that some changes result in the formation of			
	 Recognise that 	explain day and	new materials, and that this kind of change is not			
	some mechanisms,	night and the	usually reversible, including changes associated with			
	including levers,	apparent movement	burning and the action of acid on bicarbonate of soda.			
	pulleys and gears,	of the Sun across				
	allow a smaller	the sky.				
	force to have a					
	greater effect.					
Enquiry	What are trhe	Sun, Earth, Moon	What are things made from and why?	Class to complete Christopher	Do all lifecycles look the	
Question &	effects of	- What is moving?	I can compare and group materials based on their	<u>Winter Project</u>	same?	
Assessment	forces?	I can describe	properties (e.g. hardness, solubility, transparency,			
Questions	I can explain	and explain the	conductivity, [electrical & thermal], and response to	3 lessons	I can describe the life	
	what gravity is	movement of	magnets).		cycle of different living	
	and its impact	the Earth and	I can describe how a material dissolves to form a	1- To explore the emotional	things, e.g. mammal,	
	on our lives.	other planets	solution; explaining the process of dissolving.	and physical changes	amphibian, insect bird.	
	I can identify	relative to the	I can describe and show how to recover a substance	occurring in puberty	• I can describe the	
	and explain the	Sun.	from a solution.	2- To understand male and	differences between	
	effect of air	I can describe	• I can describe how some materials can be separated.	female puberty changes in	different life cycles.	
	resistance.	and explain the movement of	I can demonstrate how materials can be separated (a. a. through filtering, signing and evenerating)	more detail	I can describe the process of paperduction	
	I can identify and avalage the	the Moon	(e.g. through filtering, sieving and evaporating).	3- To explore the impact of	process of reproduction	
	and explain the effect of water	relative to the	I know and can demonstrate that some changes are reversible and some are not.	puberty on the body and the importance of	in plants. I can explain the	
	resistance.	Earth.	I can explain how some changes result in the		different gestation	
	 I can identify 	I can explain	formation of a new material and that this is usually	physical hygiene -To explore ways to get	periods	
	and explain the	and	irreversible.	support during puberty	perious	
	effect of	demonstrate	I can discuss reversible and irreversible changes.	Support during publity		
	friction.	how night and	I can give evidenced reasons why materials should			
	I can explain	day are	be used for specific purposes.			
	how levers,	created.	be used for specific parposes.			
	pulleys and	I can describe				
	gears allow a	the Sun, Earth				
	smaller force	and Moon (using				
	to have a	the term				
	greater effect.	spherical).				
VOCAB	force gravity	Earth Sun Moon	thermal insulator/conductor mixture dissolve	growth puberty	Metamorphosis asexual	
	air resistance	spherical solar	solution soluble insoluble filter sieve rusting	reproduction menstruation	plantlets propagation	
	water resistance	system rotates			gestation bacteria	
	friction	star orbit			reproduction fertilisation	
	mechanisms	planets			pollination pollen	
	levers pulleys					
	gears effect					

Previous Learning Future Learning	YEAR 3 Forces and Magnets- What can magnets do?	YEAR 3 Light- What is the dark? YEAR 6 Evolution- How do living things change over time and	YEAR 4 States of Matter- Is water always wet?	Animals Including Humans- What do our bodies do with the food that we eat? YEAR 6 Animals Including Humans- How Live		Habitat- What is the same and what's different? YEAR 6 How Living Things in their		
Year 6	•	place? <u>umans</u> the main parts of	Evolution and Inheritance Recognise that living things have changed over time	bodies work? Light Recognise that light	Electricity • Associate	2) <u>′</u> e the	Living Things in their Habitat	
	• 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.		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.	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 explain why shadows have the same shape as the objects that cast them.	brightness lamp or the volume of a buzzer with number and voltage of used in the circuit. • C and give refor variation how composition function, in the bright bulbs, the loudness or buzzers and on/off possivitches. • recognised symbols where presenting simple circuit diagram.	e a ch the d cells compare casons ons in onents ncluding ness of f d the sition of Use then	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.	
Enquiry Question &	How do our choices bodies work?		How do living things changed over time? I can describe how the earth and living things	How do we see? I can explain how	What can to vary th	<u>ne</u>	What's the same and what's	
Assessment Questions	parts of the h system. • I can describe	and name the main numan circulatory e the function of the vessels and blood.	 have changed over time. I can explain how fossils can be used to find out about the past. I can explain about reproduction and offspring (recognising that offspring normally vary and are not identical to their parents). 	 light travels. I can explain and demonstrate how we see objects. I can explain why shadows have the same shape as the 	 effects of electricity I can e how the number voltage in a circ 	?? explain e and of cells	different? (Part 2) I can classify living things into broad groups according to	

VOCAB	I can discuss the impact of diet, exercise, drugs and life style on health. I can describe the ways in which nutrients and water are transported in animals, including humans. Heart pulse blood vessels oxygen carbon dioxide nutrients muscles circulatory system muscles arteries veins capillaries	 I can explain how animals and plants are adapted to suit environment. I can link adaptation over time to evolution. I can explain evolution. Offspring reproduction characteristics suited environment species fossils evolution inherit variation adapt	object that casts them. I can explain how simple optical instruments work, e.g. periscope, binoculars, mirror, magnifying glass etc. transparent translucent opaque shiny matt reflect shadow	links to the brightness of a lamp or the volume of a buzzer. • I can compare and give reasons for why components work and do not work in a circuit. • I can draw circuit diagrams using the correct symbols. circuit cell bulb buzzer motor switch voltage symbol complete circuit	observable characteristics and based on similarities & differences. I can describe how living things have been classified. I can give reasons for classifying plants and animals in a specific way. vertebrates fish amphibians reptiles birds mammals invertebrates insects spiders snails worms micro-organisms	
Previous Learning	YEAR 5 Animals Including Humans	YEAR 5 Space- Earth, Sun, Moon: What is moving?	YEAR 3 Light- What is the dark?	YEAR 4 Electricity- Can we control electricity?	YEAR 5 Living things in their Habitats- Do all lifecycles look the same?	