

Year Group	Autumn	Spring	Summer
FS1	• 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. • Explore how you can shine light through some materials, but not others. Investigate shadows. • Explore how things work. • Explore and talk about different forces they can feel.	• Freezing / melting – leave ice cubes out in the sun, see what happens when you shake salt onto them. • Explore how things work. • Talk about the differences between materials and changes they notice.	• Plant seeds and care for growing plants. • Understand the key features of the life cycle of a plant and an animal. • Begin to understand the need to respect and care for the natural environment and all living things.
FS2	Seasons • Autumn – what has changed? • weather • clothing	Contrasting environments • Similarities and differences • Weather • Changing states of matter – water, freezing • Observations over time • Describe what they hear, feel, see whilst outside • People who live in cold places- how do they survive? Seasons • Winter – what has changed? • weather • comparing to autumn - what is different? What is the same? • Sorting and matching items to seasons • Understand the effect of changing seasons on the natural world around them	Growing – mini-beasts & plants • Lifecycles, sequences • Observations over time • Explore the natural world around them • Make observations and drawing pictures of animals and plants (linked to garden topic) • Recognise some environments that are different from the one they live Seasons • Spring – what has changed? • weather • comparing to autumn and winter

	associated with the seasons and how day length varies.	associated with the seasons and how day length varies.				associated with the seasons and how day length varies.
Year 2	<u>Animal needs for survival</u> We will: 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)	<u>Materials</u> We will: 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.	<u>Plants (light and dark)</u> We will: Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. Variation Observe Identify Classify Investigate Predict	<u>Living things and their habitats</u> We will: 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.	<u>Plants (bulbs and seeds)</u> We will: Observe and describe how seeds and bulbs grow into mature plants Variation Observe Identify Classify Investigate Predict	<u>Bulbs and Seeds</u> We will: Observe and describe how seeds and bulbs grow into mature plants <u>Growing up</u> We will: Notice that animals, including humans, have offspring which grow into adults
	<u>Growth</u> <u>Health</u> <u>Process</u> <u>Observe</u> <u>Investigate</u> <u>Predict</u>	<u>Observe</u> <u>Identify</u> <u>Classify</u> <u>Investigate</u> <u>Predict</u>				
	<u>Humans</u> We will: Describe the importance for humans of exercise, eating the right amounts of different				<u>Growing up</u> We will: Notice that animals, including humans, have offspring which grow into adults	
						<u>Wildlife</u>

	types of food, and hygiene. Growth Health Process Observe Investigate Predict	<u>Plastic</u>		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. Growth Adaptation Variation Observe Identify		
Year 3	<u>Skeletons & movement</u> We will: Identify that humans and some animals have skeletons and muscles for support, protection and movement. Growth Health Variation Observe Investigate	<u>Food waste</u>	<u>Fossils</u> We will: Describe in simple terms how fossils are formed when things that have lived are trapped within rock Cause and effect Identify Classify Investigate	<u>Light</u> We will: 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	<u>Plants</u> We will: Identify and describe the functions of different parts of plants; roots, stem, leaves and flowers. Explore the requirements of plants for life and growth (air, light, nutrients from soil and room to grow) and how they vary from plant to plant.	<u>Forces and magnets</u> We will: 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
	<u>Nutrition and Diet</u> We will:	<u>Rocks</u> We will: Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties Cause and effect Identify Classify Investigate	<u>Soils</u> We will:	Recognise that shadows are formed when the light from	Investigate the ways in which water is transported within plants.	

	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 Growth Health Variation Observe Investigate		Recognise that soils are made from rocks and organic matter. Cause and effect Identify Classify Investigate	a light source is blocked by a solid object Find patterns in the way that the sizes of shadows change. Observe Investigate Predict	Explore the role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal Growth Cause and effect Variation Observe Identify Classify	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 two poles Predict whether two magnets will attract or repel each other, depending on which poles are facing. Energy Cause and effect Observe Investigate Predict
						<u>Plants B</u>
Year 4	<u>Group and Classify living things</u> We will: Recognise that living things can be grouped in a variety of ways	<u>States of matter</u> We will: Compare and group materials together, according to whether they are solids, liquids or gases	<u>Sound</u> We will: Identify how sounds are made, associating some of them with something vibrating	<u>Electricity</u> We will: Identify common appliances that run on electricity Construct a simple series electrical	<u>Data collection C</u>	<u>The Digestive System</u> We will: Describe the simple functions of the basic parts of the digestive system in humans

	Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment	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)	Recognise that vibrations from a sound travel through a medium to the ear. Find patterns between the pitch of a sound and features of the object that produced it	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		Identify the different types of teeth in humans and their simple functions Health Process Classify Variation
	Growth Adaptation Variation Observe Identify Classify	Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. Cause & effect Observe Identify Classify Investigate	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. Energy	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	Habitats We will: Recognise that environments can change and that this can sometimes pose dangers to living things. Growth Adaptation Variation Observe Identify Classify	Food Chains We will: Construct and interpret a variety of food chains, identifying producers, predators and prey. Health Process Classify Variation

		Predict	Cause and effect Observe Investigate Predict	and insulators, and associate metals with being good conductors. Cause & Effect Observe Investigate Predict	<u>Deforestation</u>	
	<u>Data collection A</u>		<u>Data collection B</u>	<u>Energy</u>		
Year 5	<u>Forces</u> We will: 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,	<u>Earth & space</u> We will: 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	<u>Properties of materials</u> We will: 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 Understand that some materials will dissolve in liquid to form a solution, and describe how to	<u>Animals including humans</u> We will: Identify and name a variety of common animals that are birds, fish, amphibians, reptiles 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 (birds, fish,	<u>Reproduction A</u> We will: Describe the life process of reproduction in some plants and animals. Growth Health Process Variation Observe Identify Classify	<u>Reversible and Irreversible Change</u> We will: 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.

	allow a smaller force to have a greater effect. Energy Cause & effect Observe Investigate Predict	night and the apparent movement of the Sun across the sky Observe Identify Investigate Predict	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 Variation Observe Identify Classify Investigate Predict	amphibians, reptiles and mammals, and including pets). Identify, name draw and label the basic parts of the human body and say which parts of the body is associated with each sense. Growth Health Process Variation Observe	Variation Observe Identify Classify Investigate Predict
	Global Warming			<u>Living things and their habitats</u> We will:	<u>Plastic Pollution</u> <u>Reproduction B</u> We will:

				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. Growth Health Process Variation Observe Identify Classify		Describe the life process of reproduction in some plants and animals. Growth Health Process Variation Observe Identify Classify
Year 6	<u>Living things and their habitats</u> We will: 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	<u>Electricity</u> We will: 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	<u>Light</u> We will: 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	<u>The Circulatory System</u> We will: Identify and name the main parts of the human circulatory system, and explain the functions of the heart, blood vessels and blood Growth Process	<u>Variation and Adaptation</u> We will: 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	<u>Fossils</u> We will: Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.

	Give reasons for classifying plants and animals based on specific characteristics. Variation Observe Identify Classify Investigate Predict	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. Observe Identify Investigate	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 Cause & Effect Observe Investigate Predict	Cause and effect Observe Identify	environment in different ways and that adaptation may lead to evolution. Variation Identify Classify Predict	
		<u>Renewable Energy</u>	<u>Light Pollution</u>	<u>Diet, Drugs and Lifestyle</u> We Will: 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.		<u>Themed projects (Year 7 ready)</u>

				Growth Process Cause and effect Observe Identify		
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