

		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS 2 year old room	Working Scientifically ongoing throughout the year/all topics	Play and explore in their natural environment displaying high levels of engagement.	Children to begin to respond by simple comments and nonverbal gestures and movements.	Continue to learn new vocabulary linking to seasonal change and notice the changes in the seasons.	Observing changes of state through ice/water and using their senses to explore.	Use descriptive terms, such as 'hot' and 'cold'.	Create simple dens with adult support and begin to understand shade and keeping cool.
		Begin to explore seasonal change e.g. the leaves are falling off the tree.		Explore the natural world, focusing on digging and planting seeds.		Use senses to explore sand/pebbles/water/bubbles.	
		Exploring senses –and purpose of body parts Naming body parts.		Observe and notice flowers and plants growing using their senses.			
		Exploring light and colours through sensory play. Exploring sound linking to bonfire night.					
		Play with a variety of wheeled toys, exploring pushing and pulling.					
EYFS Nursery		Use descriptive terms, such as 'fast', 'slow', 'hot' and 'cold'.	Talk about and begin to describe what they can see in their environment. Notice how their environment changes through the seasons.	Understand light and dark. Begin to know that the sun gives us light in the day and we get light from the stars and reflective light from the moon in the night.	Plant seeds and care for growing plants.	Talk about the differences between the materials and changes they notice.	Exploring collections of materials and talking about their properties during a range of play situations.
		Explore how things work, investigating and talking about various light sources including lights, fire, torches etc.		Under the key features of a growing plant. Begin to understand the need to respect and care		Exploring and talking about changes in ingredients when mixing together and cooking.	

		<p>for the natural environment and all living things.</p> <p>Understand the key features of the life cycle of a plant – seed, shoot, flower</p>	
EYFS Reception	<p>Understand ideas connected to light and dark – e.g. reflection, nocturnal animals etc.</p> <p>Investigate light and dark and experiment with shadows, explaining findings and talking about changes.</p> <p>Explore the natural world around them through quality and nonfiction texts, exploring different animal habitat.</p> <p>To know that information can be found on the internet as well as nonfiction books.</p>	<p>Recognise some environments that are different that they live through quality texts, nonfiction books and looking at a world map.</p> <p>Explore changing states of matter such as exploring non-reversible changes in ingredients when mixing together and cooking as well as reversible changes such as freezing and melting water/ice.</p> <p>Understand the key features of the life cycle of a plant – seed, shoot, flower. Name the parts of the plant – root, stem, leaves, and flower.</p>	<p>Children to make observations and drawings of plants and animals in world around them.</p> <p>Talk about the cycle of the seasons using prior knowledge when exploring summer.</p>
Year 1	<p>Everyday Materials Distinguish between an object and the material from which it is made.</p> <p>Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.</p> <p>Describe the simple physical properties of a variety of everyday materials.</p> <p>Compare and group together a variety of everyday materials on the basis of their simple physical properties.</p>	<p>Animals Including Humans Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.</p> <p>Identify and name a variety of common animals that are carnivores, herbivores and omnivores.</p> <p>Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).</p>	<p>Plants Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.</p> <p>Identify and describe the basic structure of a variety of common flowering plants, including trees.</p>

		<p>Identify, draw, name and label the basic parts of the human body and say which part of the body is associated with each sense.</p>		
	<p>Seasonal Changes (Ongoing throughout the year – visit/build on learning during each of the 4 seasons)</p> <p>Observe changes across the 4 seasons.</p> <p>Observe and describe weather associated with the seasons and how day length varies</p>			
Year 2	<p>Animals including humans</p> <p>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.</p>	<p>Living things and their habitats</p> <p>Explore and compare the differences between things that are living, dead, and things that have never been alive.</p> <p>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.</p> <p>Identify and name a variety of plants and animals in their habitats, including microhabitats.</p> <p>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 .</p>	<p>Use of everyday materials</p> <p>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</p> <p>Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>	
<p>Plants (Ongoing throughout the year – visit/build on learning during each term/link to seasons)</p>				

		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.				
Year 3	<p>Forces and magnets Compare how things move on different surfaces. Notice that some forces need contact between 2 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 2 magnets will attract or repel each other, depending on which poles are facing.</p>	<p>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.</p>	<p>Rocks and minerals 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.</p>	<p>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, including pollination, seed formation and seed dispersal.</p>	<p>Plants (Continued)</p>	<p>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 an opaque object. Find patterns in the way that the size of shadows change.</p>

Year 4	<p>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.</p>	<p>Living things and their habitats 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.</p>	<p>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.</p>	<p>Animals including humans (Continued)</p>	<p>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.</p>	<p>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.</p>

Year 5	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.	Living things and 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.	Animals including humans Describe the changes as humans develop to old age.	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 friction, that act between moving surfaces. Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect.	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	Properties and changes of materials (Continued) Give reasons based on evidence from comparative and fair tests, for the particular uses of everyday materials, including wood, metals 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 this kind of change is usually not reversible, including changes associated with burning and the action of acid on bicarbonate of soda.

					filtering, sieving and evaporating.	
Year 6	<p>Evolution and inheritance 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.</p>	<p>Evolution and Inheritance (Continued) 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.</p>	<p>Animals including humans 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.</p>	<p>Light 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 explain why shadows have the same shape as the objects that cast them.</p>	<p>Living things and their habitats 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.</p>	<p>Electricity 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.</p>