

Carr Hill Community Primary School









Lower Key Stage Two

Science Mapping



Science Curriculum Mapping Lower KS2

Cycle 1							
Year 3 & 4	<u>Prior Learning</u> These should be considered in flash backs / core 4 / revised where topic not covered for long time	<u>Dazzling Smiles</u> Biology Animals, Including Humans – teeth, digestion 	<u>Islam</u> Physics Light 	<u>Volcanoes</u> Chemistry Rocks 	<u>WW2 Evacuees</u> Physics Electricity 	<u>Human Life Cycle</u> Biology Living Things and their habitats 	<u>Romans</u> Biology Animals, including Humans 
Autumn 1	<p>In KS1 children should:</p> <ul style="list-style-type: none"> 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. Know that animals, including humans, have offspring which grow into adults Know the basic stages in a life cycle for animals, including humans. Find out 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. 	National Curriculum Objectives					Flash Backs
		<p><u>Dazzling Smiles Biology</u> Animals, Including Humans – teeth, digestion</p> <ul style="list-style-type: none"> Describe the simple functions of the basic parts of the digestive system in humans. Y4 Identify the different types of teeth in humans and their simple functions. Y4 					Parts of the body (KS1)
		<p><u>Key Learning</u></p> <ul style="list-style-type: none"> Food enters the body through the mouth. Digestion starts when the teeth start to break the food down. Saliva is added and the tongue rolls the food into a ball. The food is swallowed and passes down the oesophagus to the stomach. Here the food is broken down further by being churned around and other chemicals are added. The food passes into the small intestine. Here nutrients are removed from the food and leave the digestive system to be used elsewhere in the body. The rest of the food then passes into the large intestine. Here the water is removed for use elsewhere in the body. What is left is then stored in the rectum until it leaves the body through the anus when you go to the toilet. Humans have four types of teeth: incisors for cutting; canines for tearing; and molars and premolars for grinding (chewing). 					
		<p><u>Working Scientifically</u> Skills to be taught</p> <ul style="list-style-type: none"> Ask increasingly relevant scientific questions and use different types of scientific enquiries to answer them. Make some decisions about which types of enquiry will be the best way of answering questions including observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative and fair tests, finding things out. I can decide when and how research will help and carry out research on my own. Set up practical enquiries, comparative and fair tests. Recognise when a fair test is necessary and decide how to set it up. Make predictions drawing on previous experience and knowledge. Gather, record and classify data in a variety of ways. Record findings using simple scientific language, drawings, labelled diagrams, bar charts, keys and tables. Record on findings using oral and written explanations, displays or presentations. Use results to draw simple conclusions, make predictions, suggest improvements and raise further questions. Can spot patterns in results and look for changes, similarities and differences. 					

		<ul style="list-style-type: none"> • Say what I have found out linking cause and effect. • Suggests improvements to an investigation. • Make systematic and careful observations and where appropriate, take accurate measurements using standard units using a range of equipment- e.g. thermometers, data loggers. • Help make decisions about what observations to make, how long to make them for and the type of equipment that might be used. • Can choose from a selection of equipment. • Identify similarities, differences or changes related to simple scientific ideas or processes. • Talk about criteria for grouping, sorting and classifying and use simple keys. • Compare and group according to behaviour or properties. 	
Autumn 2	<p>In KS1 children should have:</p> <ul style="list-style-type: none"> • Observed changes across the four seasons • Observed and describe weather associated with the seasons and how day length varies. <p>Children may:</p> <ul style="list-style-type: none"> • have some knowledge of where light comes from. • have seen their shadows and may know they appear when it is sunny. • Have some understanding of a reflection. • May understand they need light to be able to see things. 	<p><u>Islam</u> Physics Light</p> <ul style="list-style-type: none"> • Recognise that they need light in order to see things, and that dark is the absence of light. Y3 • Notice that light is reflected from surfaces. Y3 • Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. Y3 • Recognise that shadows are formed when the light from a light source is blocked by an opaque object. Y3 • Find patterns in the way that the size of shadows change. Y3 <p><u>Key Learning</u></p> <ul style="list-style-type: none"> • We see objects because our eyes can sense light. Dark is the absence of light. We cannot see anything in complete darkness. Some objects, for example, the sun, light bulbs and candles are sources of light. Objects are easier to see if there is more light. Some surfaces reflect light. Objects are easier to see when there is less light if they are reflective. • The light from the sun can damage our eyes and therefore we should not look directly at the sun and can protect our eyes by wearing sunglasses or sunhats in bright light. • Shadows are formed on a surface when an opaque or translucent object is between a light source and the surface and blocks some of the light. The size of the shadow depends on the position of the source, object and surface. <p><u>Working Scientifically</u> Skills to be taught</p> <ul style="list-style-type: none"> • Ask increasingly relevant scientific questions and use different types of scientific enquiries to answer them. • Make some decisions about which types of enquiry will be the best way of answering questions including observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative and fair tests, finding things out. • I can decide when and how research will help and carry out research on my own. • Set up practical enquiries, comparative and fair tests. • Recognise when a fair test is necessary and decide how to set it up. • Make predictions drawing on previous experience and knowledge. • Gather, record and classify data in a variety of ways. • Record findings using simple scientific language, drawings, labelled diagrams, bar charts, keys and tables. • Record on findings using oral and written explanations, displays or presentations. • Use results to draw simple conclusions, make predictions, suggest improvements and raise further questions. • Can spot patterns in results and look for changes, similarities and differences. • Say what I have found out linking cause and effect. 	<p>Seasons – where light comes from</p>

		<ul style="list-style-type: none"> • Suggests improvements to an investigation. • Make systematic and careful observations and where appropriate, take accurate measurements using standard units using a range of equipment- e.g. thermometers, data loggers. • Help make decisions about what observations to make, how long to make them for and the type of equipment that might be used. • Can choose from a selection of equipment. • Identify similarities, differences or changes related to simple scientific ideas or processes. • Talk about criteria for grouping, sorting and classifying and use simple keys. • Compare and group according to behaviour or properties. 	
<p>Spring 1</p>	<p>In KS1 children should:</p> <ul style="list-style-type: none"> • Distinguish between an object and the material from which it is made. • Identify and name a variety of everyday materials, including wood, metal, plastic, glass, water and rock, • Describe the simple physical properties of a variety of everyday materials. • Compare and group together a variety of everyday materials based on their simple properties. • 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 shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. <p>Children may:</p> <ul style="list-style-type: none"> • May have some understanding of a variety of different rocks in the natural world. • Some understanding of what soil is. (how to identify soil etc) 	<p><u>Volcanoes</u> Chemistry Rocks</p> <ul style="list-style-type: none"> • Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. Y3 • Describe in simple terms how fossils are formed when things that have lived are trapped within rock. Y3 • Recognise that soils are made from rocks and organic matter. Y3 <p><u>Key Learning</u></p> <ul style="list-style-type: none"> • Rock is a naturally occurring material. There are different types of rock e.g. sandstone, limestone, slate etc. which have different properties. Rocks can be hard or soft. They have different sizes of grain or crystal. They may absorb water. Rocks can be different shapes and sizes (stones, pebbles, boulders). Soils are made up of pieces of ground down rock which may be mixed with plant and animal material (organic matter). The type of rock, size of rock pieces and the amount of organic matter affect the property of the soil. • Some rocks contain fossils. Fossils were formed millions of years ago. When plants and animals died, they fell to the seabed. They became covered and squashed by other material. Over time the dissolving animal and plant matter is replaced by minerals from the water. <p><u>Working Scientifically</u> Skills to be taught</p> <ul style="list-style-type: none"> • Ask increasingly relevant scientific questions and use different types of scientific enquiries to answer them. • Make some decisions about which types of enquiry will be the best way of answering questions including observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative and fair tests, finding things out. • I can decide when and how research will help and carry out research on my own. • Make systematic and careful observations and where appropriate, take accurate measurements using standard units using a range of equipment- e.g. thermometers, data loggers. • Help make decisions about what observations to make, how long to make them for and the type of equipment that might be used. • Can choose from a selection of equipment. • Identify similarities, differences or changes related to simple scientific ideas or processes. • Talk about criteria for grouping, sorting and classifying and use simple keys. 	<p>Properties of materials (KS1) Where do we find rocks/soil?</p>

	<ul style="list-style-type: none"> • May have some knowledge of what a fossil is. 	<ul style="list-style-type: none"> • Compare and group according to behaviour or properties. 	
Spring 2	<p>In Early Years children:</p> <ul style="list-style-type: none"> • May have some understanding that objects need electricity to work. • May understand that a switch will turn something on or off. 	<p><i>WW2 Evacuees Physics</i> Electricity</p> <ul style="list-style-type: none"> • Identify common appliances that run on electricity. Y4 • Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. Y4 • 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. Y4 • Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. Y4 • Recognise some common conductors and insulators, and associate metals with being good conductors. Y4 <p><i>Key Learning</i></p> <ul style="list-style-type: none"> • Many household devices and appliances run on electricity. Some plug in to the mains and others run on batteries. An electrical circuit consists of a cell or battery connected to a component using wires. If there is a break in the circuit, a loose connection or a short circuit, the component will not work. A switch can be added to the circuit to turn the component on and off. • Metals are good conductors so they can be used as wires in a circuit. Non-metallic solids are insulators except for graphite (pencil lead). Water, if not completely pure, also conducts electricity. <p>Working Scientifically Skills to be taught</p> <ul style="list-style-type: none"> • Ask increasingly relevant scientific questions and use different types of scientific enquiries to answer them. • Make some decisions about which types of enquiry will be the best way of answering questions including observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative and fair tests, finding things out. • I can decide when and how research will help and carry out research on my own. • Set up practical enquiries, comparative and fair tests. • Recognise when a fair test is necessary and decide how to set it up. • Make predictions drawing on previous experience and knowledge. • Gather, record and classify data in a variety of ways. • Record findings using simple scientific language, drawings, labelled diagrams, bar charts, keys and tables. • Record on findings using oral and written explanations, displays or presentations. • Use results to draw simple conclusions, make predictions, suggest improvements and raise further questions. • Can spot patterns in results and look for changes, similarities and differences. • Say what I have found out linking cause and effect. • Suggests improvements to an investigation. • Make systematic and careful observations and where appropriate, take accurate measurements using standard units using a range of equipment- e.g. thermometers, data loggers. • Help make decisions about what observations to make, how long to make them for and the type of equipment that might be used. • Can choose from a selection of equipment. • Identify similarities, differences or changes related to simple scientific ideas or processes. 	<p>What is electricity? Which objects use electricity to work?</p>

		<ul style="list-style-type: none"> • Talk about criteria for grouping, sorting and classifying and use simple keys. • Compare and group according to behaviour or properties. 	
Summer 1	<p>In KS1, children should:</p> <ul style="list-style-type: none"> • Explore and compare the difference 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 the different sources of food. 	<p>Human Life Cycle Biology Living Things and their Habitats</p> <ul style="list-style-type: none"> • Recognise that living things can be grouped in a variety of ways. Y4 • Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. Y4 • Recognise that environments can change and that this can sometimes pose dangers to living things. Y4 	<p>Habitats – different types of habitats. Animals that are specific to certain habitats</p>
		<p>Key Learning</p> <ul style="list-style-type: none"> • Living things can be grouped (classified) in different ways according to their features. Classification keys can be used to identify and name living things. • Living things live in a habitat which provides an environment to which they are suited (Year 2 learning). These environments may change naturally e.g. through flooding, fire, earthquakes etc. Humans also cause the environment to change. This can be in a good way (i.e. positive human impact, such as setting up nature reserves) or in a bad way (i.e. negative human impact, such as littering). These environments also change with the seasons; different living things can be found in a habitat at different times of the year. 	
		<p>Working Scientifically Skills to be taught</p>	
		<ul style="list-style-type: none"> • Ask increasingly relevant scientific questions and use different types of scientific enquiries to answer them. • Make some decisions about which types of enquiry will be the best way of answering questions including observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative and fair tests, finding things out. • Gather, record and classify data in a variety of ways. • Record on findings using oral and written explanations, displays or presentations. • Identify similarities, differences or changes related to simple scientific ideas or processes. • Talk about criteria for grouping, sorting and classifying and use simple keys. • Compare and group according to behaviour or properties. 	
Summer 2	<p>In KS1 children should:</p> <ul style="list-style-type: none"> • 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. • Know that animals, including humans, have offspring which grow into adults 	<p>Romans Biology Animals, including Humans</p> <ul style="list-style-type: none"> • 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. Y3 • Life cycles – recap and revisit 	<p>Healthy eating Eating the right amounts and types of food.</p>
		<p>Key Learning</p> <ul style="list-style-type: none"> • Animals, unlike plants which can make their own food, need to eat in order to get the nutrients they need. Food contains a range of different nutrients – carbohydrates (including sugars), protein, vitamins, minerals, fats, sugars, water – and fibre that are needed by the body to stay healthy. A piece of food will often provide a range of nutrients. 	
		<p>Working Scientifically Skills to be taught</p>	
		<ul style="list-style-type: none"> • Ask increasingly relevant scientific questions and use different types of scientific enquiries to answer them. • Talk about criteria for grouping, sorting and classifying and use simple keys. 	

	<ul style="list-style-type: none">• Know the basic stages in a life cycle for animals, including humans.• Find out 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.	<ul style="list-style-type: none">• Compare and group according to behaviour or properties.	
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Science Curriculum Mapping

Lower KS2

Cycle 2

		<ul style="list-style-type: none"> • Ask increasingly relevant scientific questions and use different types of scientific enquiries to answer them. • Make some decisions about which types of enquiry will be the best way of answering questions including observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative and fair tests, finding things out. • I can decide when and how research will help and carry out research on my own. • Set up practical enquiries, comparative and fair tests. • Recognise when a fair test is necessary and decide how to set it up. • Make predictions drawing on previous experience and knowledge. • Record findings using simple scientific language, drawings, labelled diagrams, bar charts, keys and tables. • Record on findings using oral and written explanations, displays or presentations. • Use results to draw simple conclusions, make predictions, suggest improvements and raise further questions. • Can spot patterns in results and look for changes, similarities and differences. • Say what I have found out linking cause and effect. • Suggests improvements to an investigation. • Make systematic and careful observations and where appropriate, take accurate measurements using standard units using a range if equipment- e.g. thermometers, data loggers. • Help make decisions about what observations to make, how long to make them for and the type of equipment that might be used. • Can choose from a selection of equipment. • Identify similarities, differences or changes related to simple scientific ideas or processes. • Talk about criteria for grouping, sorting and classifying and use simple keys. • Compare and group according to behaviour or properties. 	
Autumn 2	In KS1 children: <ul style="list-style-type: none"> • May have some understanding that objects make different sounds. • Some understanding that they use their ears to hear sounds. • Know about their different senses. 	<p><u>Dreamcatchers</u> Physics Sound</p> <ul style="list-style-type: none"> • Identify how sounds are made, associating some of them with something vibrating. Y4 • Recognise that vibrations from sounds travel through a medium to the ear. Y4 • Find patterns between the pitch of a sound and features of the object that produced it. Y4 • Find patterns between the volume of a sound and the strength of the vibrations that produced it. Y4 • Recognise that sounds get fainter as the distance from the sound source increases. Y4 <p><u>Key Learning</u></p> <ul style="list-style-type: none"> • A sound produces vibrations which travel through a medium from the source to our ears. Different mediums such as solids, liquids and gases can carry sound, but sound cannot travel through a vacuum (an area empty of matter). The vibrations cause parts of our body inside our ears to vibrate, allowing us to hear (sense) the sound. • The loudness (volume) of the sound depends on the strength (size) of vibrations which decreases as they travel through the medium. Therefore, sounds decrease in volume as you move away from the source. A sound insulator is a material which blocks sound effectively. • Pitch is the highness or lowness of a sound and is affected by features of objects producing the sounds. For example, smaller objects usually produce higher pitched sounds. <p>Working Scientifically Skills to be taught</p>	<ul style="list-style-type: none"> • KS1 Spring 2 Cycle 1 – recap on instruments and sound. • Senses – what we use to hear

		<ul style="list-style-type: none"> • Ask increasingly relevant scientific questions and use different types of scientific enquiries to answer them. • Make some decisions about which types of enquiry will be the best way of answering questions including observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative and fair tests, finding things out. • Set up practical enquiries, comparative and fair tests. • Make predictions drawing on previous experience and knowledge. • Gather, record and classify data in a variety of ways. • Record findings using simple scientific language, drawings, labelled diagrams, bar charts, keys and tables. • Record on findings using oral and written explanations, displays or presentations. • Use results to draw simple conclusions, make predictions, suggest improvements and raise further questions. • Can spot patterns in results and look for changes, similarities and differences. • Say what I have found out linking cause and effect. • Suggests improvements to an investigation. • Make systematic and careful observations and where appropriate, take accurate measurements using standard units using a range if equipment- e.g. thermometers, data loggers. • Help make decisions about what observations to make, how long to make them for and the type of equipment that might be used. • Can choose from a selection of equipment. • Identify similarities, differences or changes related to simple scientific ideas or processes. 	
Spring 1		<p><u>Travel the World – Africa</u></p> <ul style="list-style-type: none"> • Construct and interpret a variety of food chains, identifying producers, prey and predators. Y4 <p><u>Key Learning</u></p> <ul style="list-style-type: none"> • Living things can be classified as producers, predators and prey according to their place in the food chain. <p>Working Scientifically Skills to be taught</p> <ul style="list-style-type: none"> • Ask increasingly relevant scientific questions and use different types of scientific enquiries to answer them. • Make some decisions about which types of enquiry will be the best way of answering questions including observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative and fair tests, finding things out. • Gather, record and classify data in a variety of ways. • Record findings using simple scientific language, drawings, labelled diagrams, bar charts, keys and tables. • Record on findings using oral and written explanations, displays or presentations. • Use results to draw simple conclusions, make predictions, suggest improvements and raise further questions. • Can spot patterns in results and look for changes, similarities and differences. • Help make decisions about what observations to make, how long to make them for and the type of equipment that might be used. • Talk about criteria for grouping, sorting and classifying and use simple keys. • Compare and group according to behaviour or properties. 	<ul style="list-style-type: none"> • Carnivore, herbivore, omnivore • Food chains - where food comes from (sources of food)

<p>Spring 2</p>	<p>Children may:</p> <ul style="list-style-type: none"> • May have an awareness of how to make things stop and start, using simple pushes and pulls. • They may know about floating and sinking. • May have experience of metals attracting to a magnet. 	<p><i>Egyptians</i> Physics Forces and Magnets</p> <ul style="list-style-type: none"> • Compare how things move on different surfaces. Y3 • Notice that some forces need contact between two objects, but magnetic forces can act at a distance. Y3 • Observe how magnets attract or repel each other and attract some materials and not others. Y3 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. Y3 • Describe magnets as having two poles. Y3 • Predict whether two magnets will attract or repel each other, depending on which poles are facing. Y3 <p><u>Key Learning</u></p> <ul style="list-style-type: none"> • A force is a push or a pull. When an object moves on a surface, the texture of the surface and the object affect how it moves. It may help the object to move better or it may hinder its movement e.g. ice skater compared to walking on ice in normal shoes. • A magnet attracts magnetic material. Iron and nickel and other materials containing these, e.g. stainless steel, are magnetic. The strongest parts of a magnet are the poles. Magnets have two poles – a north pole and a south pole. If two like poles, e.g. two north poles, are brought together they will push away from each other – repel. If two unlike poles, e.g. a north and south, are brought together they will pull together – attract. <p>Working Scientifically Skills to be taught</p> <ul style="list-style-type: none"> • Ask increasingly relevant scientific questions and use different types of scientific enquiries to answer them. • Make some decisions about which types of enquiry will be the best way of answering questions including observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative and fair tests, finding things out. • I can decide when and how research will help and carry out research on my own. • Set up practical enquiries, comparative and fair tests. • Recognise when a fair test is necessary and decide how to set it up. • Make predictions drawing on previous experience and knowledge. • Gather, record and classify data in a variety of ways. • Record findings using simple scientific language, drawings, labelled diagrams, bar charts, keys and tables. • Record on findings using oral and written explanations, displays or presentations. • Use results to draw simple conclusions, make predictions, suggest improvements and raise further questions. • Can spot patterns in results and look for changes, similarities and differences. • Say what I have found out linking cause and effect. • Suggests improvements to an investigation. • Make systematic and careful observations and where appropriate, take accurate measurements using standard units using a range if equipment- e.g. thermometers, data loggers. • Help make decisions about what observations to make, how long to make them for and the type of equipment that might be used. • Can choose from a selection of equipment. • Identify similarities, differences or changes related to simple scientific ideas or processes. • Talk about criteria for grouping, sorting and classifying and use simple keys. 	<ul style="list-style-type: none"> • Magnets – push and pull (KS1 Cycle 2 Autumn 1)
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		<ul style="list-style-type: none"> • Compare and group according to behaviour or properties. 	
Summer 1	<p>In KS1 Children:</p> <ul style="list-style-type: none"> • 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. • Identify and name the roots, trunk, branches and leaves of trees. • Observe and describe how seeds and bulbs grow into mature plants. • Find out and describe how plants need water, light and warmth to grow and stay healthy. 	<p><u>Watch Me Grow Biology</u> Plants</p> <ul style="list-style-type: none"> • Identify and describe the functions of different parts of flowering plants: roots; stem/trunk; leaves; and flowers. Y3 • 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. Y3 • Investigate the way in which water is transported within plants. Y3 • Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. Y3 <p><u>Key Learning</u></p> <ul style="list-style-type: none"> • Many plants, but not all, have roots, stems/trunks, leaves and flowers/blossom. The roots absorb water and nutrients from the soil and anchor the plant in place. The stem transports water and nutrients/minerals around the plant and holds the leaves and flowers up in the air to enhance photosynthesis, pollination and seed dispersal. The leaves use sunlight and water to produce the plant's food. Some plants produce flowers which enable the plant to reproduce. Pollen, which is produced by the male part of the flower, is transferred to the female part of other flowers (pollination). This forms seeds, sometimes contained in berries or fruits which are then dispersed in different ways. Different plants require different conditions for germination and growth. <p><u>Working Scientifically Skills to be taught</u></p> <ul style="list-style-type: none"> • Ask increasingly relevant scientific questions and use different types of scientific enquiries to answer them. • Make some decisions about which types of enquiry will be the best way of answering questions including observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative and fair tests, finding things out. • I can decide when and how research will help and carry out research on my own. • Set up practical enquiries, comparative and fair tests. • Recognise when a fair test is necessary and decide how to set it up. • Make predictions drawing on previous experience and knowledge. • Gather, record and classify data in a variety of ways. • Record findings using simple scientific language, drawings, labelled diagrams, bar charts, keys and tables. • Record on findings using oral and written explanations, displays or presentations. • Use results to draw simple conclusions, make predictions, suggest improvements and raise further questions. • Can spot patterns in results and look for changes, similarities and differences. • Say what I have found out linking cause and effect. • Suggests improvements to an investigation. • Make systematic and careful observations and where appropriate, take accurate measurements using standard units using a range of equipment- e.g. thermometers, data loggers. • Help make decisions about what observations to make, how long to make them for and the type of equipment that might be used. • Can choose from a selection of equipment. 	<ul style="list-style-type: none"> • Names plants • Name parts of a plant • Plant lifecycle – what they need to grow

		<ul style="list-style-type: none"> • Identify similarities, differences or changes related to simple scientific ideas or processes. • Talk about criteria for grouping, sorting and classifying and use simple keys. • Compare and group according to behaviour or properties. 	
Summer 2	<p>In KS1 children should:</p> <ul style="list-style-type: none"> • 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. • Know that animals, including humans, have offspring which grow into adults • Know the basic stages in a life cycle for animals, including humans. • Find out 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><u>Funny Bones Biology</u> Animals, including Humans – Skeleton and Muscles</p> <ul style="list-style-type: none"> • Identify that humans and some other animals have skeletons and muscles for support, protection and movement. Y3 	<ul style="list-style-type: none"> • Naming body parts • How to stay healthy
		<p><u>Key Learning</u></p> <ul style="list-style-type: none"> • Humans, and some other animals, have skeletons and muscles which help them move and provide protection and support. 	
		<p>Working Scientifically Skills to be taught</p>	
		<ul style="list-style-type: none"> • Ask increasingly relevant scientific questions and use different types of scientific enquiries to answer them. • I can decide when and how research will help and carry out research on my own. • Gather, record and classify data in a variety of ways. • Record findings using simple scientific language, drawings, labelled diagrams, bar charts, keys and tables. • Record on findings using oral and written explanations, displays or presentations. • Can spot patterns in results and look for changes, similarities and differences. • Say what I have found out linking cause and effect. • Help make decisions about what observations to make, how long to make them for and the type of equipment that might be used. • Can choose from a selection of equipment. • Compare and group according to behaviour or properties. 	