



The Science Curriculum

Year 1

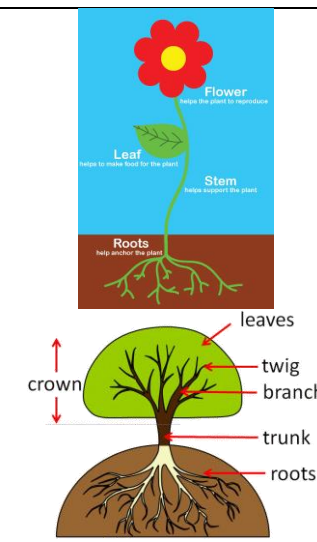
Intent	<p>At Benjamin Adlard Primary School we believe that a high quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science. Through building up a body of key foundational knowledge and concepts, pupils should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.</p> <p>Science in our school is about developing children's ideas and ways of working that enable them to make sense of the world in which they live through investigation, as well as using and applying process skills. The staff at Benjamin Adlard Primary School ensure that all children are exposed to high quality teaching and learning experiences, which allow children to explore their outdoor environment and locality, thus developing their scientific enquiry and investigative skills. They are immersed in scientific vocabulary, which aids children's knowledge and understanding not only of the topic they are studying, but of the world around them. We intend to provide all children regardless of ethnic origin, gender, class, aptitude or disability, with a broad and balanced science curriculum.</p>
Implementation	<p>The planning and teaching of the science curriculum is designed to build on knowledge and skills taught in previous units and year groups. Teachers use the school's science progression framework to plan and teach key concepts and scientific enquiry skills in a progressive manner and support the acquisition and accumulation of knowledge. New vocabulary is planned and is taught explicitly to children, teaching the meaning of homonyms where necessary. Retrieval practice techniques are used to help children to memorise key concepts for use in future science lessons and across the curriculum. When teaching practical science, teachers combine demonstrations with opportunities for children to carry out their own investigations, gaining hands-on experience handling specialist equipment and materials.</p>
Impact	<p>Our science curriculum provides the foundations for our children for understanding the world they live in. Through building up a body of knowledge and key concepts, our children develop a sense of excitement and curiosity and they understand how science can be used to explain what has occurred, predict how things will behave and analyse the causes. Our children understand the value of science and enjoy working scientifically. They are able to communicate their ideas and findings with confidence and using different styles. Our children have a passion for science and engage enthusiastically in their learning. As a result, they achieve well and are keen to continue studying science as they move on to the next stage of their education.</p>

	EYFS	End of Key Stage One	Lower Key Stage Two	Upper Key Stage 2
Working scientifically	<ul style="list-style-type: none"> Observe things closely through a variety of means (photos, magnifiers) With support, notice and discuss patterns around them. 	<ul style="list-style-type: none"> Explore the world around them and raise their own simple questions. Begin to recognise that there are different ways to answer a scientific question. Experience a variety of practical scientific enquiries. Carry out a simple test. Use simple features to compare objects, materials and living things and, with help, decide how to sort and group them (Identify and classify). Observe closely using simple equipment: pooters, magnifying glasses With guidance, begin to notice patterns and relationships. Use simple measurements and equipment to gather data (egg timers, lenses, magnifiers) Use observations and ideas to suggest answers to questions. 	<ul style="list-style-type: none"> Raise their own relevant questions about the world around them. Provide a range of different scientific experiences including different types of scientific enquiries to answer questions. Start to make their own decisions about the most appropriate type of scientific enquiry they might use to answer questions. Set up simple scientific enquiries, comparatives and fair tests. Recognise when a fair test is necessary and help to decide how to set it up. Talk about the criteria for sorting, grouping and classifying; and use simple keys. Make systematic and careful observations. Help to make decisions about the observations to make, how long to make them for and the type of simple equipment that might be used. Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them. Take accurate measurements using standard units. Learn how to use a greater range of equipment including data loggers and thermometers. 	<ul style="list-style-type: none"> Use their own science experiences to explore ideas and raise different kinds of questions. Talk about how scientific ideas have developed over time. Select and plan the most appropriate type of scientific enquiry to use to answer scientific questions. Recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why. Use and development keys and other information records to identify, classify and describe living things and materials, and identify patterns that might be found in the natural environment. Make decisions about what observations to make, what measurements to use and long to make them for. Look for different causal relationships in data and identify evidence that refutes or supports their ideas. Choose the most appropriate equipment to make measurements with increasing precision and explain how to use it accurately. Take repeat measurements where appropriate.
Communicating Scientifically	<ul style="list-style-type: none"> With support, talk about patterns and changes that have been seen. 	<ul style="list-style-type: none"> Record simple data. Talk about what you have found out and how you have found out. With support, record and communicate findings in a range of ways, beginning to use simple scientific language. 	<ul style="list-style-type: none"> Collect and record data from observations and measurements in a variety of ways: notes, bar charts and tables, standard units, drawings, labelled diagrams and keys. Look for changes, patterns, similarities and differences in data in order to draw simple conclusions and answer questions. 	<ul style="list-style-type: none"> Decide how to record data and results of increasing complexity from a choice of familiar approaches: scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Identify scientific evidence that has been used to refute or support ideas or arguments. Use relevant scientific language and illustrations to discuss, communicate and justify scientific ideas, use oral and written forms such as displays and other presentations to report conclusions, causal relationships and explanations of degrees of trust in results. Use results to make predictions and identify when further observations, comparative and fair tests might be needed.
Animals, including humans	<ul style="list-style-type: none"> Identify and name some common animals. This will be linked to personal experiences such as pets, books or days out with family. 	<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. Understand that animals, including humans, have offspring which grow into adults. Describe the basic needs of animals, including humans, for survival: water, food, 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"> Know that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food and that they get their nutrition from the food they eat. Know that humans and some other animals have skeletons and muscles for support and movement. Know the basic functions of the human digestive system. Know the types of teeth in the human mouth and their function. Know how to construct and interpret a food chain, identifying predators, prey and producers. 	<ul style="list-style-type: none"> Know how humans develop and change to old age. Know how to group plants, animals and microorganisms based on common, observable characteristics. Give reasons for the classification chosen. Know the main parts of the human circulatory system. Know the functions of the heart, blood vessels and blood. Know what impact diet, exercise, drugs and lifestyle has on the function of the human body. Know how water is transported within animals.






















Living Things and their Habitats	<ul style="list-style-type: none"> Make observations of living things in the immediate environment. 	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Know that living things can be classified in different ways. Know how to use a classification key to group, identify and name a variety of living things. Know that environments can change and that these changes can pose danger to living things. 	<ul style="list-style-type: none"> Know how lifecycles differ for mammals, insects and birds. Know the process of reproduction for plants and animals.
Plants	<ul style="list-style-type: none"> With support, make observations of plants in the immediate environment 	<ul style="list-style-type: none"> Identify and name a variety of common wild and garden plants. Identify and name a variety of native evergreen and deciduous trees. Know the basic structure of a variety of common flowering plants including: petal, leaf, trunk, branch, stem, root, fruit, bulb, seed Observe and describe how bulbs and seeds grow into mature plants. Know that plants need water, light and a suitable temperature to grow and stay healthy. 	<ul style="list-style-type: none"> Know the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. Know the requirements of a plant for life and growth (air, water, nutrients from soil, and room to grow) and how they vary from plant to plant. Investigate the way in which water is transported in plants. Know the life cycle of a flowering plants: pollination, seed formation and seed dispersal. 	
Materials, their properties and change	<ul style="list-style-type: none"> Use a variety of materials during independent play: plastic jugs, wooden blocks, fabric puppets. 	<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, plastic, glass, metal, water and rock. Describe the simple physical properties of a variety of everyday objects. Compare and group together a variety of everyday materials on the basis of their simple physical 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. 		<ul style="list-style-type: none"> Know how to group materials based on their hardness, solubility, transparency, conductivity and response to magnets. Know that some materials will dissolve in liquid to form a solution and how to recover a substance from a solution. Know how to best separate a mixture using filtering, sieving and evaporating. Know that dissolving, mixing and changes of state are reversible. Know that some changes result in the formation of a new material and that this is usually irreversible.
Seasonal Changes	<ul style="list-style-type: none"> Observe and name the types of weather seen on a daily basis. 	<ul style="list-style-type: none"> Observe changes across the four seasons. Observe and describe weather associated with the seasons and how day length varies. 		
Rocks			<ul style="list-style-type: none"> Compare and group different kinds of rocks on the basis of their appearance and simple physical properties. Describe in simple terms how fossils are formed. Know that soils are made from rocks and organic matter. 	

Light	<ul style="list-style-type: none"> Explore sources of light: torches, ceiling lights, the sun, the moon. 		<ul style="list-style-type: none"> Know that light is needed in order to see. Know that dark is the absence of light. Know that light can be reflected from surfaces. Know that light from the sun can be dangerous and know some ways to protect yourself. Know how shadows are formed and that their size can be changed. 	
Forces and Magnets	<ul style="list-style-type: none"> Explore and investigate bar magnets. Can you find an object that will stick to a magnet? 		<ul style="list-style-type: none"> Know that objects will move in different ways on different surfaces. Know that some forces can act at a distance and that some forces need direct contact between two objects. Know that magnets have two poles and how magnets behave depending on which of the poles meet. Know that some objects are attracted to metals but some are not. 	<ul style="list-style-type: none"> Know that an unsupported object will fall to the Earth because of the effect of gravity. Know how water resistance, air resistance and friction act between moving surfaces. Know how levers, pulleys and gears allow a smaller force to have a greater effect.
States of Matter	<ul style="list-style-type: none"> Explore malleable materials with hands, fingers and a variety of tools. 	<ul style="list-style-type: none"> Know that some objects can be squashed, bent, twisted or stretched depending on the material they are made from. 	<ul style="list-style-type: none"> Know if a material is a solid, liquid or gas. Know that heating or cooling a material can change its state. Know that some changes can be reversed and that some are irreversible. Know that evaporation rate increases as temperature increases. 	
Sound			<ul style="list-style-type: none"> Know that some sounds are created when an object vibrates. Know that vibrations from sounds travel through a medium (usually the air) to the ear. Know that features of an object will change the pitch of a sound. Know that as the strength of vibrations increases, the volume of a sound will increase. Know that sounds get fainter as the distance from the sound source increases. 	
Electricity			<ul style="list-style-type: none"> Know that common appliances require electricity to run. Know how to construct a simple series circuit. Know the basic parts of an electrical circuit. Know that a circuit must complete a full loop in order for the electricity to flow around it. Know how a switch affects a series circuit. Know that some materials conduct electricity and some insulate electricity. 	
Earth and Space				<ul style="list-style-type: none"> Know how the Earth and the other planets move in relation to the sun. Know how the moon moves in relation to the earth. Know that the sun, moon and earth are approximately spherical bodies. Know that the rotation of the Earth explains the concept of day and night.

Evolution and Inheritance				<ul style="list-style-type: none">• Know that living things have changed over time.• Know that fossils provide information about living things that inhabited the earth millions of years ago.• Know that living things produce offspring of the samekind, but that normally offspring vary and are not identical to their parents.• Know that animals have adapted to suit their environment in different ways and that this adaption may lead to evolution.
---------------------------	--	--	--	--

Key Stage 1 – Year 1		Autumn 1
Seasonal Changes - Plants	<p>National Curriculum objectives: Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies.</p> <p>Cross-Curricular Links: Geography: Use simple fieldwork and observational skills to study the geography of their school and its grounds and the key human and physical features of its surrounding environment</p>	
Key Vocabulary		Investigations
Identify, common, wild, British, flowering, plant, tree, root, stem, trunk, branch, twig, leaf, flower, crown, dandelion, nettle, daisy, buttercup, bluebell, poppy, daffodil, primrose, snowdrop, English oak, silver birch, horse chestnut, common hawthorn, Scots pine, common yew		<p><u>Grow your own!</u></p> <ul style="list-style-type: none">Support children to grow their own runner bean.Grow beans in plastic bag greenhouses with wet cotton wool.Observe what happens to the bean over a number of days and weeks.Record findings pictorially and in writing.
Scientific Skills		
<ul style="list-style-type: none">Identify and name a variety of common wild and garden plants, including deciduous and evergreen treesIdentify and describe the basic structure of a variety of common flowering plants, including treesAsk simple questions and recognise that they can be answered in different waysObserve closely, using simple equipmentGather and record data to help in answering questions		
Knowledge		 <p>The diagram illustrates the basic structure of a flowering plant and a tree. The top part shows a flower with labels: Flower (helps the plant to reproduce), Leaf (helps to make food for the plant), Stem (helps support the plant), and Roots (help anchor the plant). The bottom part shows a tree with labels: leaves, crown, twig, branch, trunk, and roots.</p>
<ul style="list-style-type: none">Common British plants that children must be able to identify and name are:<ul style="list-style-type: none">Wild Plants<ul style="list-style-type: none">Dandelion, nettle, daisy, buttercup, bluebell, poppyGarden plants<ul style="list-style-type: none">Daffodil, primrose, snowdropDeciduous Trees<ul style="list-style-type: none">English oak, silver birch, horse chestnut, common hawthornEvergreen Trees<ul style="list-style-type: none">Scots Pine, common yewBasic structure of a flowering plantBasic structure of a tree		
Definitions		
Evergreen – Has leaves all year round Deciduous – Loses its leaves in the Autumn Common – Can be easily found		


Medium Term Planning					
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
To identify different plants and trees	To sort trees into evergreen and deciduous	To name common plants and trees	To label parts of a tree.	To label parts of a flower	To know what a plant needs to grow successfully
Week 7					
To set an investigation.					

Key Stage 1 – Year 1		Autumn 2													
Seasonal changes	<p>National Curriculum objectives:</p> <ul style="list-style-type: none">observe changes across the 4 seasonsobserve and describe weather associated with the seasons and how day length varies <p>Cross-Curricular Links:</p> <p>Geography: Identify seasonal and daily weather patterns in the United Kingdom.</p>														
Prior Learning		Next Steps													
YFS – Children have observed the weather in their play		Year 2 – Weather patterns across the UK													
Key Assessment Questions															
What is the weather like in spring/summer/autumn/winter?															
Key Vocabulary		Key knowledge taught													
Rain, snow, storm, thunder, lightning, cloudy, clothing, warm, cold, forecast, summer, autumn, winter, spring, seasons, shadow, sun, earth, spin, day, night, light, dark, rainfall, precipitation, data		<p>In the UK, each season brings a series of weather patterns. These can differ from year to year, month to month and day-to-day:</p> <table><tr><td>Spring</td><td>Summer</td><td>Autumn</td><td>Winter</td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td>Cool days Sunshine and showers High levels of rainfall Often cloudy</td><td>Warm/hot days Bright sunshine and limited cloud Occasional thunderstorms Low levels of rainfall</td><td>Cool Days Fog Often cloudy and overcast Windy High levels of rainfall</td><td>Cold days with sometimes freezing temperatures Snow and ice Occasional bright sunshine</td></tr></table>		Spring	Summer	Autumn	Winter					Cool days Sunshine and showers High levels of rainfall Often cloudy	Warm/hot days Bright sunshine and limited cloud Occasional thunderstorms Low levels of rainfall	Cool Days Fog Often cloudy and overcast Windy High levels of rainfall	Cold days with sometimes freezing temperatures Snow and ice Occasional bright sunshine
Spring	Summer	Autumn	Winter												
															
Cool days Sunshine and showers High levels of rainfall Often cloudy	Warm/hot days Bright sunshine and limited cloud Occasional thunderstorms Low levels of rainfall	Cool Days Fog Often cloudy and overcast Windy High levels of rainfall	Cold days with sometimes freezing temperatures Snow and ice Occasional bright sunshine												
Scientific Skills															
<ul style="list-style-type: none">Ask simple questions and recognise that they can be answered in different waysPerform simple testsUse observations and ideas to suggest answers to questionsGather and record data to help in answering questions		<p>The weather can be measured in different ways:</p> <table><tr><td>Rain and snow can be measured with a rain gauge.</td><td>Temperature can be measured with a thermometer.</td><td>The wind direction can be measured using a windsock.</td></tr><tr><td></td><td></td><td></td></tr></table>		Rain and snow can be measured with a rain gauge.	Temperature can be measured with a thermometer.	The wind direction can be measured using a windsock.									
Rain and snow can be measured with a rain gauge.	Temperature can be measured with a thermometer.	The wind direction can be measured using a windsock.													
															
		<p>Observe changes across the 4 seasons:</p> <ul style="list-style-type: none">Autumn - The number of daylight hours decreases, days become colder, less sunshine, more rain, leaves falling from trees.Winter - The number of daylight hours decreases significantly, days become even colder, snow and frost might fall, animals begin to hibernateSpring - The number of daylight hours increases, days become warmer, more sunshine, plants begin to grow again (spring bulbs, trees), animals begin to produce offspring (lambs). <p>Summer - The number of daylight hours increases significantly, it becomes hotter, lots more sunshine, less rain, plants and trees are in full flower.</p>													

Definitions

- Observe – To notice something.
- Record – To put down in writing, pictures or words.
- Precipitation – Rain, snow, sleet or hail that falls onto the ground
- Season – One of the four parts of the year: Spring, summer, autumn and winter

Medium Term Planning					
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
To know the four seasons	Describe weather associated with winter	Describe weather associated with spring	Describe weather associated with summer	Describe weather associated with autumn	Describe how the day length varies in each season

Key Stage 1 – Year 1		Spring 1									
Materials and their properties	<p><u>National Curriculum objectives:</u> 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.</p> <p><u>Cross-Curricular Links:</u> DT – Combining and joining materials</p>										
Prior Learning		Next Steps									
In EYFS settings the children will have had opportunities to build, create and explore a range of different materials including wood, plastic, metal, paper and textiles. They will also have access to malleable materials such as playdough, salt dough and plasticine.		Year 2 – Identify and compare the suitability of a variety of everyday materials for particular uses. Explore ways that materials can be changed – bending, stretching, twisting Year 4 – States of matter – solids, liquids and gases – The Water Cycle Year 5 – Separating solutions using sieving, filtering and evaporating									
Key Assessment Questions											
<ul style="list-style-type: none">Can you name some different materials?Can you describe the properties of some of these materials?Which material would you use to make a raincoat? Why did you choose this material?											
Key Vocabulary		Investigations									
Material, property, identify, compare, wood, plastic, glass, metal, rock, rough, smooth, hard, soft, transparent, opaque, absorbent, waterproof, dull, shiny		<p><u>Can you sort these everyday objects?</u></p> <ul style="list-style-type: none">Identify materials and classify them according to their properties.Record results in a Carroll Diagram. <table><tr><td></td><td>Hard</td><td>Soft</td></tr><tr><td>Dull</td><td>Brick Rock</td><td>Jumper Playdough</td></tr><tr><td>Shiny</td><td>Coin Mirror</td><td>Tin Foil Jelly</td></tr></table> <p><u>Does everything stick to a magnet?</u> Explore the classroom and find things that stick to a magnet. Record findings using a Venn diagram. Then investigate whether everything made of metal sticks to a magnet.</p>		Hard	Soft	Dull	Brick Rock	Jumper Playdough	Shiny	Coin Mirror	Tin Foil Jelly
	Hard	Soft									
Dull	Brick Rock	Jumper Playdough									
Shiny	Coin Mirror	Tin Foil Jelly									
Scientific Skills											
<ul style="list-style-type: none">Ask simple questions and recognise that they can be answered in different waysObserve closely, using simple equipmentPerform simple testsIdentify and classifyGather and record data to help in answering questions											
Knowledge											
<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, plastic, glass, metal, water, and rock											

<ul style="list-style-type: none"> Describe the simple physical properties of a variety of everyday materials: <ul style="list-style-type: none"> Rough and smooth Hard and soft Transparent and opaque Absorbent and waterproof Dull and shiny 	
Definitions	
Absorbent - A material able to soak up liquids easily. Waterproof - A material that does not absorb water. Transparent - Allowing light to pass through so that objects behind can be distinctly seen. Opaque - Not able to be seen through	


Medium Term Planning					
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
To identify and name a variety of everyday materials.	To distinguish between an object and the material from which it is made by naming objects and identifying the material from which they are made.	To distinguish between an object and the material from which it is made by looking and touching different materials.	To distinguish between an object and the material from which it is made by testing different objects.	To perform simple tests.	To compare and group together a variety of everyday materials on the basis of their simple physical properties.

Key Stage 1 – Year 1		Spring 2
Scientific Enquiry	<p><u>National Curriculum objectives:</u> Asking simple questions and recognising that they can be answered in different ways Observing closely, using simple equipment Performing simple tests Identifying and classifying Using their observations and ideas to suggest answers to questions Gathering and recording data to help in answering questions.</p> <p><u>Cross-Curricular Links:</u> <u>Design and Technology:</u> Design, make and evaluate a product. <u>Mathematics:</u> Compare, describe and solve practical problems for lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] and mass/weight [for example, heavy/light, heavier than, lighter than]</p>	
Key Vocabulary		Investigations
Question, ideas, heavy, light, big, small, fast, slow, heavier, lighter, bigger, smaller, faster, slower, suggest, test, observe, predict, record, report.		<p><u>Does everything fall in the same way?</u></p> <ul style="list-style-type: none">● Pose the question to the children and brainstorm their initial ideas. Draw out vocabulary such as heavy, light, big, small, fast, slow, heavier, lighter, bigger, smaller, faster and slower.● Ask children to suggest ways in which the idea could be tested.● Perform a simple test:● 2 people hold 2 identical objects at the same height and then drop them. Children observe what happens and record (pictorially or in writing).● Repeat with each child holding different objects:<ul style="list-style-type: none">○ A wooden block and a feather.○ An apple and a banana○ A piece of paper and a paperclip.● Predict, observe and record.● Report findings in writing or teacher to scribe. <p><u>Can you stop an egg breaking when it falls to the floor?</u> Week 1 - If we drop an egg from a height what will happen to it? What could we do to stop the egg from breaking? Brainstorm ideas. Children to plan their egg protection device - eg. parachute, create a protective coat, egg safety mat Week 2 - Build your egg protection device. Week 3 - Test egg protection devices and record findings pictorially and in writing.</p>
Scientific Skills		
<ul style="list-style-type: none">● Ask simple questions and recognise that they can be answered in different ways● Observe closely, using simple equipment● Perform simple tests● Use observations and ideas to suggest answers to questions● Gather and record data to help in answering questions		
Knowledge		
All objects will fall at the same speed regardless of their mass. However, air resistance may affect the speed at which objects fall. Gravity is the force that pulls objects towards the ground.		

Definitions
<p>Suggest – To say what you are thinking</p> <p>Observe – To notice something</p> <p>Predict – To say in advance what might happen.</p> <p>Record – To put down in writing, pictures or words.</p> <p>Report – To produce a record of what happened.</p>

Medium Term Planning					
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
<p>To know what gravity is.</p> <p>To ask simple questions and recognising that they can be answered in different ways</p>	<p>To perform simple tests</p> <p>To observing closely, using simple equipment</p> <p>To use observations and ideas to suggest answers to questions</p> <p>To gather and recording data to help in answering questions.</p>		<p>To ask simple questions and recognising that they can be answered in different ways</p>	<p>To perform simple tests</p> <p>To observing closely, using simple equipment</p> <p>To use observations and ideas to suggest answers to questions</p> <p>To gather and recording data to help in answering questions.</p>	

Key Stage 1 – Year 1		Summer 1
Animals, including humans	<u>National Curriculum objectives:</u> 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) <u>Cross-Curricular Links:</u> Mathematics – Gathering and recording data PSHE – Pupils know what improves and harms their local, natural and built environments and about some of the ways people look after them.	
Prior Learning		Next Steps
In EYFS, children learn about a variety of different animals including farm animals and their offspring, jungle animals and arctic animals. This will include naming a variety of animals and describing their physical features.		Year 2 – Lifecycles of animals, habitats (rock pools) Year 3 – Predators and prey, food chains Year 4 – Living things and classification keys Year 5 – Observing and comparing life cycles (plants and animals, including humans) Year 6 – Classification of microorganisms, evolution and inheritance
Key Assessment Questions		
What does a carnivore eat? What does an herbivore eat? What does an omnivore eat? Can you name a common mammal, reptile, bird, fish and amphibian? Can you describe the physical features of a fish/bird/mammal?		
Key Vocabulary		Investigations
Mammal, reptile, amphibian, bird, fish, vertebrate, invertebrate, warm blooded, cold blooded, carnivore, herbivore, omnivore		<u>What do animals eat?</u> Identify and classify animals based on whether they are carnivores, herbivores or omnivores. Sort them onto a Venn diagram.
Scientific Skills		
<ul style="list-style-type: none">Ask simple questions and recognise that they can be answered in different waysIdentify and classifyGather and record data to help in answering questions		
Knowledge		<u>Case Study – The Great Crested Newt</u> Protected in the UK by the wildlife and countryside Act 1981. Newts are amphibians, breeding in ponds during the spring and spending most of the rest of the year feeding on invertebrates in woodland, hedgerows, marshes and grassland (just like Greetwell Quarry). They hibernate underground, among tree roots and in old walls. The Great Crested Newt is almost black in colour, with spotted flanks and a striking, orange belly. It has warty skin and males have a long, wavy crest along the body and tail during the breeding season. Why are they threatened in our area?
<ul style="list-style-type: none">Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.<ul style="list-style-type: none">Birds: Robin, blackbird, sparrow, barn owl, thrushMammals: Fox, hedgehog, squirrel, badger, mouse, otter, stoatAmphibians: Toad, frog, newtReptiles: Adder and grass snakeFish: Barbel, pike, roachIdentify and name a variety of common animals that are carnivores, herbivores and omnivores<ul style="list-style-type: none">Carnivores: Fox, otter, stoat, weaselHerbivores: sheep, cows,Omnivores: Badgers, hedgehogs, squirrelsDescribe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets)<ul style="list-style-type: none">Fish - Gills, cold-blooded, live in water only, vertebrates, scaly skin, lay eggs		

<ul style="list-style-type: none"> ○ Amphibians - cold-blooded, live in water or on land, moist scaleless skin, vertebrates ○ Reptiles - cold-blooded, scaly skin, lay eggs, vertebrates ○ Birds - Vertebrates, wings, lay eggs, warm blooded, feathers ○ Mammals - Vertebrates, give birth to live young, warm blooded, have fur 	<p>Great crested newts live in Greetwell Quarry and are threatened by the new road that is being built through there (The Eastern Bypass).</p> <p>What can we do to help?</p> <p>Create an amphibian house</p>  <p>https://www.rspb.org.uk/get-involved/activities/give-nature-a-home-in-your-garden/garden-activities/makeafrogandtoadabode/</p>
<h2>Definitions</h2> <p>Vertebrate - Has a spine and skeleton</p> <p>Invertebrate - Has no spine or skeleton</p> <p>Warm blooded - Has a constant body temperature of approximately 37°C</p> <p>Cold blooded - Body temperature varies depending on the environment</p> <p>Threaten – To cause something to be at risk.</p>	

Medium Term Planning					
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
To identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.	To describe and compare the structure of a variety of common animals.	To identify and name a variety of common animals that are carnivores, herbivores and omnivores.	To identify, name, draw and label the basic parts of the human body.	To say which part of the body is associated with each sense.	To describe and compare the structure of a variety of common animals.