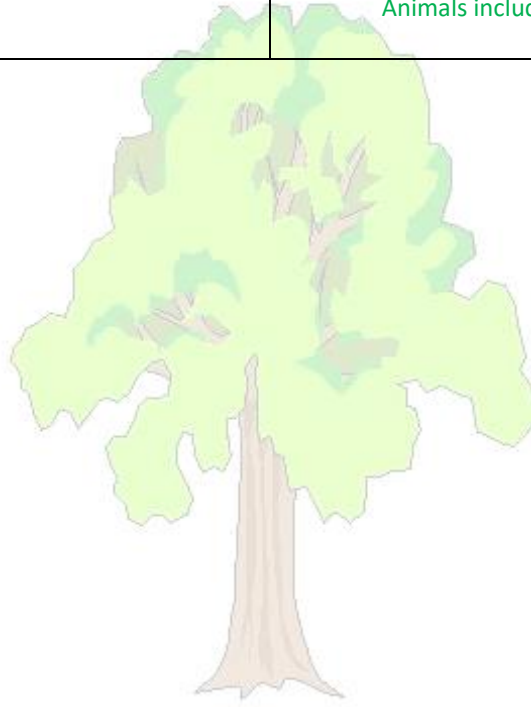


Year 2 Long Term Plan

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
<p>Why can't animals live everywhere? Living Things and Their Habitats</p> <p>How do I know if something is alive? Living Things and Their Habitats</p>	<p>Which materials make the strongest castles? Uses of Everyday Materials</p>		<p>What do I need to be alive and healthy? Animals including Humans</p> <p>How do offspring grow up? Animals including Humans</p>	<p>How do bulbs and seeds grow into healthy plants? Plants</p>	



Year 2 Medium Term Plan

Unit 1 Science – Why can't animals live everywhere? How do I know if something is alive?		
National Curriculum Links	Disciplinary Knowledge (Working Scientifically)	Key Vocabulary
<p>Living Things and Their Habitats</p> <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 microhabitats • 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"> • Use a magnifying glass to add detail to a drawing • Classify and group animals by habitat or microhabitat • Group animals into simple food chains 	<p>Tier 2: living, features, move, feed, grow, senses, shelter, depend/survive, suitability, transfer, environment</p> <p>Tier 3: reproduce, habitat, microhabitat, source, nutrients, energy, food chain, producer, prey, predator</p>
Pupil Offer	Famous People	
Paper aeroplanes	Sir David Attenborough Jacques Cousteau	

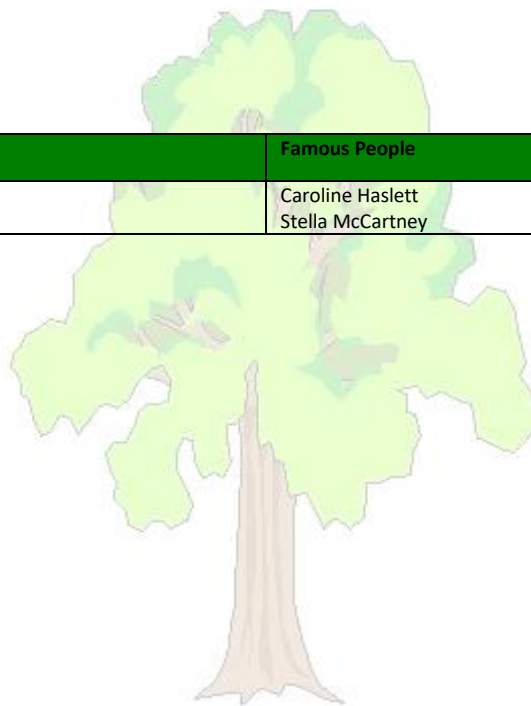


Unit 1	Week 1	Week 2/3	Week 4	
Lesson Overview including Substantive knowledge	<p>Identifying, grouping and classifying What Examples Can I Find of Living Things, Things That Are No Longer Alive and Things That Have Never Been Alive?</p> <ul style="list-style-type: none"> Know how to identify whether something is living (can move, feed, grow, reproduce and use their senses). Know whether something was once alive (was once part of a living thing or a living thing that has died). Know that some items have never been alive because they have never shown the characteristics of life. <p>Retrieval: Y1 – living things Children to be shown images and identify things that are alive. Talk about how living things will move, feed, grow, reproduce and use their senses. Apply specifically to humans and plants, in addition to other examples. Repeat pictures with looking specifically and dead things, including things like fur which was once part of a living animal. Finish with looking at pictures for objects that have never been alive. Children to classify a new set of pictures into hoops, and compare answers to other tables. They then write their own grid to classify.</p>	<p>Identifying, grouping and classifying What Microhabitats Can We Find in Our School?</p> <ul style="list-style-type: none"> Know that a habitat is an environment where an animal lives. It contains all the things that animal needs to survive. Know that a microhabitat is a small habitat that also contains everything certain animals need to survive. Know that different microhabitats provide different conditions. Know that animals need shelter, water and food to survive. <p>Retrieval: Discuss living things Explain terms habitats and environment, and what they contain. Explain term microhabitat. Complete work, sorting animals into larger habitats, e.g. arctic and ocean. Show children pictures of smaller animals that would be found in the school e.g. woodlice and ants. Look at the microhabitat they are in. Ask the children about the microhabitats we have in school and go and find them.</p> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;"><u>Working Scientifically TAPS</u></p> <p style="text-align: center;">Nature Spotters</p> <p>Explore simple classification keys/spotter sheets – select appropriate for your local habitat (in or out of school grounds) and season, for example: http://www.woodlandtrust.org.uk/naturedetectives/activities Take the children on a nature hunt to explore the habitat. Groups could explore: leaves/blossom/trees, flowers, invertebrates (mini beasts), pond life... as appropriate. Remind children about careful handling of animals, returning any creatures to their habitat, not picking wild flowers, not eating, washing hands on return. Children use spotter sheets to identify and classify plants and animals they encounter. Return to class to discuss their findings. Classify the types of living things found, asking for reasons why their animal does / does not belong to a classification group.</p> </div> <p>Discuss if the habitat was light, dark, damp or dry, and whether it was popular or not.</p>	<p>Pattern Seeking Do Plants Need Particular Habitats Too?</p> <ul style="list-style-type: none"> Know that, just like animals, different plants are suited to different habitats. Know that habitats provide plants with what they need to survive. <p>Retrieval: plant names Complete activity to retrieve common plant names, and others that are specific to our local area. Explore the outside area to object which microhabitats have plants growing the most successfully. Sort plants into those growing in the dark, light, damp and dry. Also discuss those growing under the cover of the trees. Class to explore which plants would not like these areas to understand that plants grow in habitats they are suited to.</p>	
	Working Scientifically	Identify and classify living and non-living things according to whether they are alive or dead or have never been alive	Use simple equipment (magnifying glasses) to observe closely the animals we find in local microhabitats. Observe the conditions in different microhabitats and draw conclusions about what minibeast need to survive	Observe the light, plants and dryness of the soil in different habitats. Draw conclusions about what different plants need to survive.
	Organisation & Communication	Written sorting grid	Habitat and animal matching Labelled drawings of microhabitat	photographs of exploring pink and green slips
	Reading & Maths Opportunities		Reading comprehension (separate lesson)	

Unit 1	Week 4	Week 5/6	Week 8	
Lesson Overview including Substantive knowledge	<p>Research</p> <p>How Do Different Habitats Provide For The Basic Needs Of Different Kinds Of Animals And Plants?</p> <ul style="list-style-type: none"> Know that there are a range of different habitats around the world. Know that different animals and plants are suited to different habitats. Know what some of these animals and plants are. <p>Retrieval: naming animals and plants</p> <p>Discuss where animals get food, shelter and water in our local area. Revisit some animal habitats from Week 2 and discuss the food, shelter and water they find. Explain that research is important when we cannot experiment ourselves. Children to watch videos and use pictures to describe the habitats, and why it is a good home for different animals. Children to also explore a choice chamber, previously set up by an adult. They can look at which areas the woodlice choose to go into.</p>	<p>Identifying, Classifying and Grouping</p> <p>How Do Animals Obtain Food From Other Animals And Plants?</p> <ul style="list-style-type: none"> Know that living things depend on each other. Know that a simple food chain is made up of a producer (plant), an animal who eats that plant (prey) and the predator that hunts and eats that prey. Know that energy is transferred between living things in a food chain. <p>Retrieval: microhabitats and year 1 - carnivores</p> <p>Plants are a source of food for most animals. Can the children give any examples? Explain that the animals depends on the plant to give them nutrients and energy to survive. Show grass, rabbit and fox. Children to remember that a fox is a carnivore so does not eat the grass. Explain that this is a food chain. Repeat with grass, cow, human. Children to make more food chains independently using given pictures. Lesson to be followed up by showing food chains and labelling with terms producer, prey and predator. Children to identify which is which, understanding that in longer food chains some animals can be both predator and prey. Children to be challenged to think about how a microhabitat can protect prey from its predator.</p>	<p><u>BIG QUESTION ANSWER</u></p> <p>Children to be given a picture where some animals have been put in the wrong microhabitat. Children to identify which ones are correct and which are incorrect, providing reasons for why it is suited or not suited. Within the same picture, children should identify something that is alive, dead and never alive. Children should also be given a related food chain and asked what is happening, and which are predators, prey and the producer. This will be presented in the form of a double page spread.</p>	<p><u>REVIEWING</u></p> <p>Teachers to plan one additional week to address missing knowledge or remaining misconceptions. This lesson content and outcomes will vary between classes.</p>
Working Scientifically	Use books and the internet to learn about different, unfamiliar habitats around the world and the animals that live there. Gather information from a range of sources and record the most useful and appropriate information for future reference.	Sort animals and plants into food chains		
Organisation & Communication	Annotated pictures Labelled drawings of choice chamber.	Food chains	Double page spread	
Reading & Maths Opportunities	Reading non-fiction books and websites	'The Gruffalo' by Julia Donaldson		

Year 2 Medium Term Plan

Unit 2 Science – Which materials make the strongest castle?		
National Curriculum Links	Disciplinary Knowledge (Working Scientifically)	Key Vocabulary
<p>Materials</p> <ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> asking simple questions and recognising that they can be answered in different ways use string to measure distance travelled Make conclusions about materials used 	<p>Tier 2: wood, metal, plastic, glass, brick, rock, paper, cardboard, strong, waterproof, bounce, grip (sole), squash, bend, twist, stretch, stretchy/not stretchy, fabric,</p> <p>Tier 3: property, material, object, suitability, purpose, solid, fair test</p>
Pupil Offer		Famous People
Making castle in DT		Caroline Haslett Stella McCartney



Primary School

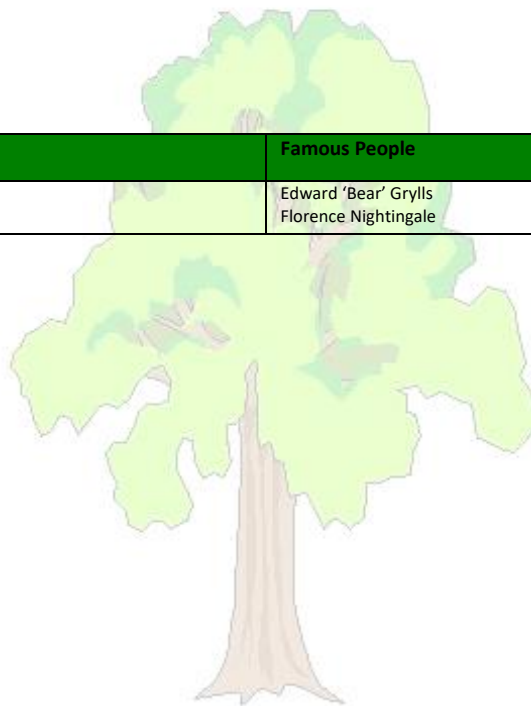
Unit 2	Week 1	Week 2	Week 3	Week 3
Lesson Overview including Substantive knowledge	<p>Identifying, Classifying and Grouping What Do We Know About Everyday Materials?</p> <ul style="list-style-type: none"> Know that everyday objects are made from materials that have different properties <p>Retrieval: Year 1 – object, material, property Children to complete a partially completed map for some object, material and property links. Activity 1: classroom hunt for different uses of a given material</p> <p>Working Scientifically TAPS</p> <p><i>Materials hunt</i></p> <p>In Year 1 children would have spent some time distinguishing between an object and the material from which it is made. Recap this with the children by identifying and naming a variety of everyday materials in the classroom, e.g. wood, plastic, glass, metal, and rock. Consider how to classify objects which are made from more than one material e.g. record most important part, or make a 'mixed materials' row on recording table. Ask groups of children to go on a materials hunt around a designated section of the school/grounds, collecting their findings for different areas on a pre-prepared table and/or using a camera. Collate class results, noting with the children different ways to record data clearly. Discuss the uses of different materials around school and consider why different materials</p> <p>Activity 2: Sort materials based on their uses. Activity 3: Create a class chart to show how many materials are used for the use.</p>	<p>Working Scientifically TAPS</p> <p><i>Waterproof Materials</i></p> <p>Provide a collection of different types of materials. Discuss which could be the 'best' material – draw out that need to know best for what. Today we want to know the 'best' for waterproof coat/umbrella/cover for summer fair cakes etc – choose appropriate context. Discuss how to compare how waterproof the different materials are, for example:</p> <ul style="list-style-type: none"> Drip water onto the material until it seeps through Pour a set amount of water onto the material Wrap up a cotton ball in the material & put into water <p>Children decide on and carry out a simple test to measure the waterproofness of different materials – groups try different ways to answer the question. Discuss as a class the different ways in which groups tested waterproofness. Adult collect utterances or ask target children or those who have not worked with an adult. These could be recorded in floorbooks or annotated photos.</p>	<p>Identifying, Classifying and Grouping Which Material is Best?</p> <ul style="list-style-type: none"> Know that different materials have properties that make them suitable for specific purposes and uses. <p>Retrieval: material and property matching Show children a scenario, such as building a bridge or making a raincoat. Children to be given some time to discuss which materials they would use to make the object. Provide sentence stems to help build answers when discussing as a class : The best material for would be This is because it is Children to work through a number of different scenarios so that they can use as many different materials as possible.</p>	<p>Fair / Comparative testing How Well Do Different Materials Bounce?</p> <ul style="list-style-type: none"> Know the suitability of a variety of everyday materials for different uses (in this case to make a ball bounce) <p>Retrieval: vocabulary Show children a shoe sole and discuss what properties make it good for this job. Discuss word bouncy and find other objects that need to be bouncy. Discuss experiment to test how bouncy balls are, ensuring that children understand that the balls must be the same size. Children to predict which one will bounce the highest. In small groups, children will record how high their ball bounced. Children to record results in a simple block chart. They can complete a conclusion sentence: The material ... is the best for making a bouncy ball because</p>
	Working Scientifically	Identify and classify the variety of uses of different materials based on their properties	Ask simple questions and recognise that they can be answered in different ways	Identifying and classifying, using observations and ideas to suggest answers to questions – use knowledge of materials to select the correct one for a given purpose
Organisation & Communication	List of uses for material in activity 1 photographs of activity 3	Results grid	Completed sentence stems	Prediction and conclusion sentences# photograph of graph
Reading & Maths Opportunities				Standard measurements

Unit 2	Week 4	Week 5	Week 6	Week 7
Lesson Overview including Substantive knowledge	<p>Observation over time Can Solid Objects Change Shape?</p> <ul style="list-style-type: none"> Know the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching <p>Retrieval: TBC Use playdough for children to explore bending, twisting, stretching and squashing. Establish that a solid keeps its shape unless a force (such as our hands) is acting upon it. Repeat with real solid objects. Some can be changed, and some cannot. Children to record their findings in a grid and will be challenged to rank objects by how much they can be squashed etc.</p>	<p>Observation over time Which Fabric is the Stretchiest</p> <ul style="list-style-type: none"> Know that the shapes of solid objects made from some materials can be changed by stretching <p>Retrieval: stretchy materials Why is fabric good for clothes? Activity 1: Feel and stretch fabric samples, before making a prediction. Activity 2: Talk about things that need to stay the same when experimenting. Add different weights to the end of the material, and record how far down a meter stick it goes.</p>	<p><u>BIG QUESTION ANSWER</u></p> <p>Pupils will be producing a design of a castle for DT. They will use this design for their activity here to label all of the best materials for different areas of the castle. At each point they will also need to choose their reason why that material is chosen.</p>	<p><u>REVIEWING</u></p> <p>Teachers to plan one additional week to address missing knowledge or remaining misconceptions. This lesson content and outcomes will vary between classes.</p>
Working Scientifically	<p>Use their observations and experimentation to suggest answers to questions – can solid objects change shape? Record data from observations in a table to help answer questions. In pairs draw a conclusion about whether a solid can change shape.</p>	<p>Perform a simple test. Pupils make a prediction about which fabric they think will be most stretchy and collectively plan how to test this. Know that when scientists plan experiments, they try to keep some things the same. Use a metre stick to measure the stretchiness of fabric. Use weights to test them.</p>		
Organisation & Communication	<p>Recording grid Photographs</p>	<p>Prediction and conclusion sentence Recording grid</p>	<p>Labelled castle picture</p>	
Reading & Maths Opportunities		<p>Standard measurements</p>		

Primary School

Year 2 Medium Term Plan

Unit 3 Science – What do I need to be alive and healthy? How do offspring grow up?		
National Curriculum Links	Disciplinary Knowledge (Working Scientifically)	Key Vocabulary
<p>Animals, including Humans</p> <ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • use a ruler to measure in cm • use results to choose an appropriate conclusion 	<p>Tier 2: growth, human, child, toddler, teenager, adult, survive, shelter, exercise, muscles, heart, lungs, brain, meat, fruit, vegetables, dairy, fat, sugar, healthy, portion</p> <p>Tier 3: offspring, lifecycle, limbs, reproduce, energy, air (oxygen), temperature, hygiene, mental health</p>
Pupil Offer		Famous People
<p>Germs experiment Cross year group experiment</p>		<p>Edward 'Bear' Grylls Florence Nightingale</p>



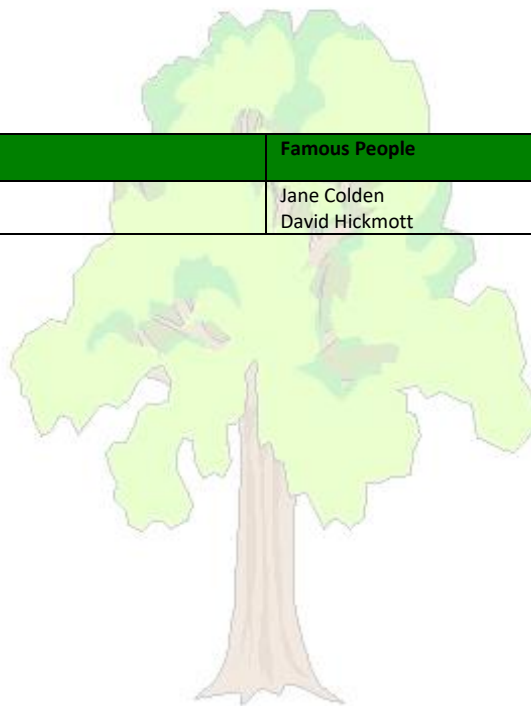
Primary School

Unit 3	Week 1/2	Week 3	Week 4	Week 5	
Lesson Overview including Substantive knowledge	<p>Identifying, Classifying and Grouping How Do Animals Change as They Get Older?</p> <ul style="list-style-type: none"> Know that all animals, including humans, are born, they get older and bigger, and most will go on to have children of their own. This is called a life cycle. Know that animals, including humans, change a lot as they move through the cycle <p>Retrieval: animals their characteristics Explain that animals and humans may look very different, but we all have things in common, namely that most will reproduce. Explain term offspring and lifecycle. Children to order lifecycle of a chick, before watching videos of the butterfly, frog and clownfish. Pupils to use pictures to create lifecycles in their books. Children will also look at pictures to match other offspring with their adults, such as farm animals. Children will also learn the names for these offspring.</p>	<p>Comparative / Fair testing Do Human Body Parts Change with Age?</p> <ul style="list-style-type: none"> Know that humans begin as babies and grow into adults; we go through different stages of growth. Know that, as we get older, our body parts grow. <p>Retrieval: comparing lifecycles Show children pictures of babies, and explain that this is the first stage of a human's life cycle. Children to record features of a baby, and the things they can and cannot do. Repeat for further age stages. Discuss ways to test whether body parts change as we get older.</p> <p>Working Scientifically TAPS</p> <p><i>Hand Spans</i></p> <p>Ask the children to compare the size of their hand with that of another child. As a class create a list of questions e.g. Do older children have bigger hands? Do taller children have bigger hands? Can bigger hands pick up more cubes? ('Hand span grab' can create a graph of cubes). Discuss how hand spans could be measured and agree as a class (e.g. draw around hands, spread/closed fingers, start and end place of measurement, to nearest centimetre). With a partner to help, ask each child to measure their own hand. Record results together as a class. Ask the children to compare hand spans and suggest reasons answers to the class questions.</p>	<p>Other What Do Animals Need to Survive?</p> <ul style="list-style-type: none"> Know that living things need water, food, air and shelter to survive. <p>Retrieval: TBC Show images of different things the children use in a day. Ask them which things an animal needs to survive, and which are nice things to have. Repeat for an animal. Explain that there are 4 essential things: water, food, air and shelter. Explore the school grounds for places where animals could get these things and create a group grid. Children to record for one animal in their book.</p>	<p>Fair / Comparative testing Why Should Humans Exercise?</p> <ul style="list-style-type: none"> Know that humans should exercise to keep us fit and healthy and help our body to function <p>Retrieval: survival Create a class list of physical activities that people in the class enjoy. Ask children to march on the spot for 40 seconds, and ask a true or false statement about how it makes their brain or bodies feel. Pupils to work in small groups and choose a small number of activities to complete. Each activity should be completed for 60 seconds. Children will then record how breaths are taken for the 60 seconds afterwards. They will use this to conclude which exercise makes the body work the hardest.</p>	
	Working Scientifically	Understand that scientists observe closely – they look for change and they look for growth to help them understand. Use their knowledge of animal groups and observations of change to order life cycles correctly	Observe (images) to identify similarities and differences. Perform simple tests. Use tools to measure accurately. Gather and record data to help answer the question. Know that scientists use measurements to explore how living things change and grow.	Use observations of the school grounds/local area and record these	Perform a simple comparative test to identify which activity makes our bodies work harder. Draw comparisons and talk about findings
	Organisation & Communication	lifecycles stuck in books	Results table Conclusion sentence	table	recording table conclusion sentence
	Reading & Maths Opportunities	The Hungry Caterpillar by Eric Carle		Reading comprehension about different pets and their needs	Comparing time in seconds

Unit 3	Week 6	Week 7	Week 8	Week 9
Lesson Overview including Substantive knowledge	<p>Comparative / Fair testing</p> <p>Additional Lesson: Hygiene</p> <p>Explain the term hygiene to the children and ask them about the different things they do in the day to show good hygiene. Talk in detail about washing hands. Children to be put into groups, wearing different coloured glitter on their hands. Children to have 60 seconds to shake as many hands as possible. Children to then look at their hands and see how quickly the 'germs' spread.</p> <p>Then, children to be put into groups to wash their hands. Some will only use a paper towel, some only use water, and some use soap and water. Children to conclude what is the best and cleaning germs away.</p> <p>Afterwards, talk about illness, and signs of someone being ill. Talk about what people can do to feel better (following PSHE policy around medicine safety).</p>	<p>Identifying, classifying and grouping</p> <p>Why Do We Eat Different Types Of Food?</p> <ul style="list-style-type: none"> Know that humans need to eat the right amounts of different types of food <p>Retrieval: exercise</p> <p>Show pictures of foods and see if children know what they are.</p> <p>Explain that water is important because it replaces water we lose and carries away bad things inside us. Fruits and vegetables keep our heart, lungs and stomachs healthy. Cereals, wheat, sugar and fat give us energy but we should only have a small amount of sugar and fat. Meat, fish, eggs and milk help us to grow. Play games to help children classify foods into these groups.</p> <p>Children to be given images of different meals and asked if they are balanced or unhealthy. They should sort them into these groups. They should order them from most to least healthy.</p>	<p><u>BIG QUESTION ANSWER</u></p> <p>Children to make a poster to answer the big question. They will be presented with key words or picture prompts around the page to ensure that their sentences contain all information needed.</p>	<p><u>REVIEWING</u></p> <p>Teachers to plan one additional week to address missing knowledge or remaining misconceptions. This lesson content and outcomes will vary between classes.</p>
Working Scientifically	<p>Perform a simple comparative test to identify which activity makes our bodies work harder.</p> <p>Draw comparisons and talk about findings</p>	<p>Ask questions about healthy and unhealthy foods</p> <p>Sort foods into healthy and unhealthy groups</p> <p>Know that scientists investigate food so that they can educate people about healthy choices</p>		
Organisation & Communication	<p>Recording grid</p> <p>Photographs</p>	<p>sentences to describe meals chosen for dinner</p>	<p>Poster</p>	
Reading & Maths Opportunities				

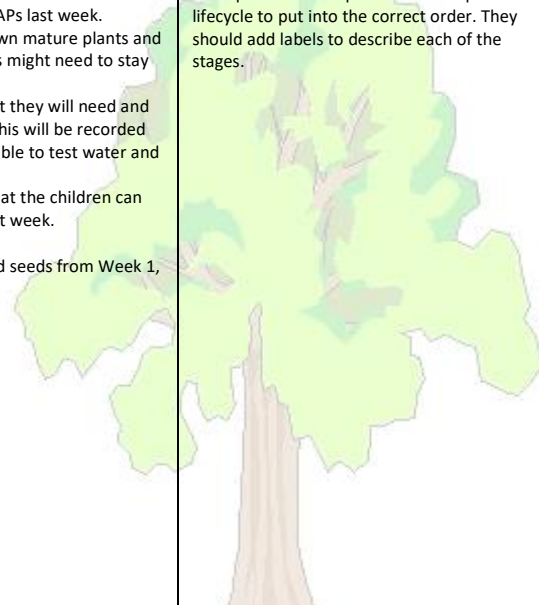
Year 2 Medium Term Plan

Unit 4 Science – How do bulbs and seeds grow into healthy plants?		
National Curriculum Links	Disciplinary Knowledge (Working Scientifically)	Key Vocabulary
<p>Plants</p> <ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • use observations to answer questions • record weekly observations • use observations to make a prediction about future changes 	<p>Tier 2: seed, bulb, plant, protect, mature, roots, shoot, food supply, temperature</p> <p>Tier 3: seed coat, food store, seed leaves, germination, nutrients, absorb, energy, lifecycle, reproduce</p>
Pupil Offer		Famous People
Growing plants Herb exploration		Jane Colden David Hickmott



Primary School

Unit 4	Week 1	Week 2	Week 3	Week 4	
Lesson Overview including Substantive knowledge	<p>Observation over time What Do Plants Grow From?</p> <ul style="list-style-type: none"> Know that plants grow from seeds and bulbs <p>Retrieval: year 1 - plants Match tree leaves, names and produce, e.g. conkers and acorns. Children to have time to look at a variety of tree seeds. They should notice that they are different shapes and sizes. Explain that seeds usually have a coating to protect them and they need to be stored over the winter and planted in the spring. Ask children what they think is inside a seed. Provide them with a soaked seed to compare to a dry seed. Children can peel the soaked seed to check their thoughts. They will draw before and after pictures and label the different parts. Show children a variety of bulbs. Children to compare to seeds and learn that bulbs are mature plants that have already grown up before. Let children know that we are going to compare growth of a seed and bulb growing, and will check on them weekly.</p>	<p>Research</p> <p>Additional Lesson: Herbs and edible plants</p> <p>Talk about plants that can be eaten. Look at the different ways that fruits and vegetables grow, especially focusing on ones they know such as strawberries and potatoes. Explain the difference between fruits and vegetables (seeds and no seeds). Watch time lapses of fruit trees so children can link learning to blossom from Year 1. Look at pictures of herbs. Compare these to plants that grow fruits and vegetables. Children to be provided with a few real herbs to feel and smell. Children to play matching games. Ensure children understand safety points around eating plants in the wild.</p>	<p>Observation over time How Do Bulbs and Seeds Grow?</p> <ul style="list-style-type: none"> Know that germination is the process where seeds and bulbs grow into plants. Know there are three main phases of germination <p>Retrieval: bulb or seed Show children video of germination and ask children to describe the changes they see happening in the video. Children to make a quick sketch of the three main phases of growth. Children to plant seeds in a transparent container so they can find out how long germination takes. Children to keep track of changes daily in a provided grid. Set this up in the lesson, and start filling out tomorrow. Also, check on bulbs and seeds from Week 1, and record changes.</p>	<p>Comparative / Fair Testing Observation over time What Does a Seed Need to Grow?</p> <ul style="list-style-type: none"> Know that most seeds and bulbs need water to grow Know that seeds and bulbs have a store of food inside them <p>Retrieval: germination Give children two seeds and tell them that seeds do not need food or light to germinate. They will find out if they need water to germinate. Pupils to set up a grid to compare changes seen in two pots: one watered and one not. They will observe changes after 1 week and 2 weeks.</p> <p>Also, check on bulbs and seeds from Week 1, and record changes.</p>	
	<p>Use observations and ideas (about seeds and bulbs) to suggest answers to questions. Begin to make predictions. Take weekly photos to monitor change over time. Begin to develop the idea that we should keep some things the same when planning an experiment</p>	<p>Use their observations and experimentation to suggest answers to questions – can solid objects change shape? Record data from observations in a table to help answer questions. In pairs draw a conclusion about whether a solid can change shape.</p>	<p>Observe seed germination closely; set up a simple test/ investigation following a model. See teachers modelling using observations to ask questions about what we see. Keep a seed diary to track changes.</p>	<p>Perform a simple comparative test to see whether seeds need water to grow Suggest answers to questions (What does a seed need to grow?) Observe closely, using simple equipment</p>	
	<p>Organisation & Communication</p>	<p>Labelled before and after pictures</p>		<p>Grid showing labelled pictures of changes</p>	<p>Grid showing labelled pictures of changes</p>
	<p>Reading & Maths Opportunities</p>			<p>Reading comprehension (separate lesson)</p>	

Unit 4	Week 5	Week 6	Week 7	Week 8	Week 9	
Lesson Overview including Substantive knowledge	<p>Comparative / Fair Testing Observation over time</p> <p>What Does a Seed Need to Grow?</p> <ul style="list-style-type: none"> Know that most seeds and bulbs need water to grow Know that seeds and bulbs have a store of food inside them <p><u>Working Scientifically TAPS</u></p> <p><i>Plant Growth</i></p> <p>Show children pre-grown plants, discuss what children think these plants need to keep healthy. Raise questions they would like to investigate, e.g. <i>How long can plants last without water / light? Does it matter if the plant is inside or outside? How will less light affect the plant?</i></p> <p>Use pre-grown plants to explore conditions for growth, e.g. Compare NORMAL CONDITIONS (on window sill + water + light + warm) with: No/less/more WATER or No/less/more LIGHT or No/less/more WARMTH.</p> <p>Discuss what they think will happen to plants without water/sun/warmth and how to record observations e.g. labelled drawings every few days to make plant diaries. Children need to observe and measure the plants over time using simple equipment e.g. cameras, rulers, measuring tape, magnifiers. Discuss what the class results show about what a plant needs to grow and to stay healthy.</p> <p>Also, check on bulbs and seeds from Week 1, and record changes.</p>	<p>Comparative / Fair Testing Observation over time</p> <p>What Does a Plant Need to Stay Healthy?</p> <p>Know that seeds and bulbs need water to germinate.</p> <ul style="list-style-type: none"> Know that seeds and bulbs have a store of food inside them. Know that plants need more things to grow and keep them healthy – water, light, suitable temperature. <p>Retrieval: TBC</p> <p>Update and conclude observations from week 3, and from the TAPS last week. Now children to be shown mature plants and asked what these plants might need to stay healthy.</p> <p>Pupils to decide on what they will need and what they will do, and this will be recorded as a class. They will be able to test water and light.</p> <p>Set up experiment so that the children can look at these plants next week.</p> <p>Also, check on bulbs and seeds from Week 1, and record changes.</p>	<p>Identifying, classifying and grouping</p> <p>What Is the Lifecycle of a Plant?</p> <ul style="list-style-type: none"> Know that the cycle from seed to plant to flower to seed is called a lifecycle <p>Retrieval: germination needs</p> <p>Pupils to update and finish all plant investigations, including that from last week. They can also make a prediction about what will happen to the plant if we continued to leave it.</p> <p>Watch lime lapse of plant growing. Children to be provided with pictures from a plant lifecycle to put into the correct order. They should add labels to describe each of the stages.</p> 	<p><u>BIG QUESTION ANSWER</u></p> <p>Children to start by using role play to act out being bulbs and seeds growing. There could also be some 'farmers' who water the crops or weather systems.</p> <p>Children to then create a story about growing plants. The story characters should be a seed and a bulb. The children can add in any other characters and events they like, but they must make sure they show what a plant needs and the different stages of the life cycle.</p>	<p><u>REVIEWING</u></p> <p>Teachers to plan one additional week to address missing knowledge or remaining misconceptions. This lesson content and outcomes will vary between classes.</p>	
	Working Scientifically	<p>Perform a simple comparative test to see whether seeds need water to grow</p> <p>Suggest answers to questions (What does a seed need to grow?)</p> <p>Observe closely, using simple equipment</p>	<p>Carry out a simple comparative test to show that plants need water and light to stay healthy.</p> <p>Use their observations and ideas to suggest answers to questions.</p> <p>Discuss the method together and have it scaffolded to enable them to plan.</p>	<p>Ask simple questions and know that information can be found from secondary sources such as books.</p> <p>Based on observations over time, predict what might happen to the plants in the future.</p> <p>Use books/laptops to find out about plant life.</p>	<p>Story book or comic strip</p>	
	Organisation & Communication	<p>Grid showing labelled pictures of changes</p>	<p>Class post it note planner</p>			
	Reading & Maths Opportunities	<p>measurements in cm</p>		<p>Reading comprehension (separate lesson)</p>		