



Carlisle Infant School



Science: EYFS Development Matters and KS1 National Curriculum Progression Grid

	Autumn Term	Spring Term	Summer Term
Reception	Progression – Objectives/Skills: <ul style="list-style-type: none"> Look closely at similarities differences pattern and change Observe change as a result of temperature Ask questions demonstrate curiosity about the world around them Record data Talk to an adult about what has been found out 	Progression – Objectives/Skills: <ul style="list-style-type: none"> Look closely at similarities differences pattern and change Respond to prompts to say what happened to object Take measurements Use senses and simple equipment to explore the world around them, e.g. binoculars and magnifying glasses Answer questions using data With support, explain why some things occur. 	Progression – Objectives/Skills: <ul style="list-style-type: none"> Look closely at similarities differences pattern and change Use of magnifying glasses Measure growth eg weigh the chicks measure the caterpillars in length and time it takes to change Respond to prompts to say what happened to a living thing Make predictions with support or prompting, talk about what they think might happen based on their own experiences. Draw conclusions with support, talk about what they have found out or what they think might happen next/ change based on their own experiences.
	Suggested Activities Cooking in harvest Observe change, can we change it back? bread/pumpkin soup/potatoes/porridge/apples Seasonal change Autumn art/wind Explore day and night with dark dens and torches Observe changes in the weather and temperature Plant tulip bulbs	Suggested Activities Seasonal change Ice exploration Look for signs of spring in the garden Prepare and plant vegetable patches/potatoes Sow wild flower seed Explore rolling wheeled vehicles How far will they travel? How can we change how far they travel?	Suggested Activities Seasonal change summer shadows Animal life cycles frogs/butterflies/chicks/ladybirds Where different animals live in the world and why? Observe change in chicks as they grow Observe changes in caterpillars as they grow Talk about care for animals and what they need to grow Plant sunflower seeds
	Vital Vocabulary: Vegetable carrot potato pumpkin cauliflower beetroot Fruit apple pear banana nocturnal	Vital Vocabulary: Recycling material wood metal plastic hard soft bendy Natural compost	Vital Vocabulary: Life cycle roots, shoots, grow, stem, bulb, flower, seed Wild life, predator, prey,
	EYFS Enrichment Opportunities: Cooking	EYFS Enrichment Opportunities:	EYFS Enrichment Opportunities: Eggs Hatching Insect Lore Caterpillars

Year 1 Skills	Science Skill <ul style="list-style-type: none"> • Identify and Classify • Perform Simple Tests • Use their observations and ideas to help in answering questions • Perform Simple Tests • Ask Simple questions and recognise that they can be answered in different ways 	Science Skill <ul style="list-style-type: none"> • Identify and Classify • Perform Simple Tests • Ask simple questions and recognise that they can be answered in different ways • Use observations and ideas to answer simple questions • Observe closely using simple equipment 	Science Skill <ul style="list-style-type: none"> • Observe closely using simple equipment • Use their observations and ideas to suggest answers to questions • Gather and record data to help in answering questions
Year 1 Progression	Autumn Term	Spring Term	Summer Term
	Animals Including Humans <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 Seasonal Change <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 	Materials And Their Properties <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 materials • Compare and group together a variety of everyday materials on the basis of their simple physical properties Seasonal Change <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 	Plants <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, including trees Seasonal Change <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
	Suggested Investigations	Suggested Investigations	Suggested Investigations

<p>Observe class tree look at leaves, branches and lichen. Revisit over the seasons, class photo & sketch. Investigate the senses through a sensory carousel. Which smells can you identify (smell pots) https://www.stem.org.uk/resources/elibrary/resource/443339/eargongs#&gid=undefined&pid=1</p> <p>Record weather for 1 week, introduce weather symbols to describe weather patterns. Looking at Humans, parts of the body, play Simon says, heads shoulders knees and toes. Identify and label parts of the body (with support). Is it true that the tallest person can jump the furthest?</p> <p>First-hand observations of animals: Zoolab animal visit, children have opportunity to touch animals. Learn about classifying animals by vertebrate/invertebrate. Classify using the 5 groups of vertebrates.</p> <p>How do animals survive the extreme cold? **Lard on hands investigation, how do mammals keep warm in cold places? Classifying animals into the 5 vertebrate animal groups. Discussing some of their characteristics. Grouping animals by what they eat.</p>	<p>Observe class tree look at leaves, branches and lichen. Compare to Autumn and Winter and discuss differences to humans and animals (hibernation, warm clothes, not as much daylight hours). Revisit over the seasons, class photo, could sketch if weather permits. **Observe the moon in the sky. Identifying objects around school. Identifying everyday materials in objects around school. Using simple equipment, test to see if materials are waterproof/not waterproof. Experiencing the properties of different materials using a feely bag. Describing them using adjectives such as squishy, smooth, bendy, stretchy, hard.</p> <p>How do scientists know so much about dinosaurs we have not seen any real living ones? https://pstt.org.uk/resources/curriculum-materials/big-jurassic-classroom</p> <p>Classifying animals by what they eat (knowing that dinosaurs were real animals, reptiles, that lived millions of years ago). Dinosaur Poo: herbivore carnivore or omnivore how do you know?</p>	<p>Observe class tree look at leaves, branches and lichen. Revisit over the seasons, class photo, could sketch if weather permits. Compare to Autumn, Winter and Spring, discuss differences. Select the clothing and items associated with each season (season charades). Record weather for 1 week Focus sun/shadows; https://www.twinkl.co.uk/search?term=shadow+investigation</p> <p>Observe common plants around local area and environment. Wild and not wild plants. Observe the parts of a flowering plant, draw still life and label to create a scientific diagram. Grow some cress and find out what conditions will affect the germination. Grow some seeds and find out what conditions will affect the growth of the plant (light, water). Keep a plant diary. https://www.bbc.co.uk/bitesize/topics/zpxnyrd</p> <p>Observe the trees in our environment and the differences; classify as deciduous or evergreen.</p>
<p>Vital Vocabulary:</p>	<p>Vital Vocabulary:</p>	<p>Vital Vocabulary:</p>
<p>Animals including humans Fish, Reptiles, Mammals, Birds, Amphibians (+ examples of each) Herbivore, Omnivore, Carnivore, Leg, Arm, Elbow, Head, Ear, Nose, Back, Wings, Beak</p> <p>Seasonal Changes Summer, Spring, Autumn, Winter, Sun, Day, Moon, Night, Light, Dark</p>	<p>Everyday Materials Wood, Plastic, Glass, Paper, Water, Metal, Rock, Hard, Soft, Bendy, Rough, Smooth, waterproof, not waterproof.</p> <p>Seasonal Changes Summer, Spring, Autumn, Winter, Sun, Day, Moon, Night, Light, Dark</p>	<p>Plants Deciduous, Evergreen trees, Leaves, Flowers (blossom), Petals, Fruit, Roots, Bulb, Seed, Trunk, Branches, Stem</p> <p>Seasonal Changes Summer, Spring, Autumn, Winter, Sun, Day, Moon, Night, Light, Dark</p>
<p>Year 1 Enrichment Opportunities:</p>	<p>Year 1 Enrichment Opportunities:</p>	<p>Year 1 Enrichment Opportunities:</p>
<p>Zoolab animal visit.</p>	<p>Astronaut training camp (Space day).</p>	<p>Outdoor learning focus or trip to the Stockyard/ Discovery centre/Kew Gardens/ Bushy Park.</p>

Year 2 Skills	<ul style="list-style-type: none"> • Suggest investigations from their own ideas and make predictions about outcomes • Recognise that questions can be asked in different ways • Make simple predictions • Make several related observations • Use simple equipment provided • Use standard/nonstandard units of measure • Record in simple tables • With help/independently use graphs and charts • Try different approaches to finding things out for themselves • Notice if they are working safely • Gather and record data to help in answering questions • Use their observations and ideas to help in answering questions • Identify and Classify • Perform Simple Tests • Ask simple questions and recognise that they can be answered in different ways 	<ul style="list-style-type: none"> • Suggest investigations from their own ideas and make predictions about outcomes • Recognise that questions can be asked in different ways • Make simple predictions • Try different approaches to finding things out for themselves • Observe and describe how bulbs grown into mature plants. • Decide how to sort and group objects and materials • Begin to link their explanations to what they have discovered • Ask simple questions and recognise that they can be answered in different ways • Perform simple tests 	<ul style="list-style-type: none"> • Suggest investigations from their own ideas and make predictions about outcomes • Recognise that questions can be asked in different ways • Make simple predictions • Try different approaches to finding things out for themselves • Notice if they are working safely • Observe closely using simple equipment • Perform simple tests
	Year 2 Progression	<p style="text-align: center;">Autumn Term</p> <p>Living Things and Their Habitats</p> <ul style="list-style-type: none"> • Explore and compare the differences between things that are alive, once alive and never alive. • Identify and name a variety of plants and animals in their microhabitat. • Describe how living things are suited to their habitat. • Describe how animals obtain their food, using simple food chains. <p>Plants- bulbs</p> <ul style="list-style-type: none"> • Observe and describe how bulbs grown into mature plants. <p>(Plant Hyacinth bulbs ready for spring observation)</p>	<p style="text-align: center;">Spring Term</p> <p>Use of Everyday Materials</p> <ul style="list-style-type: none"> • Identify and compare the suitability of a variety of everyday materials, including wood, plastic, metal, 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. <p>Animals including humans</p> <ul style="list-style-type: none"> • Find out about and describe the basic needs of animals for survival (water, food, air) • Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene. <p>Plants- bulbs</p> <ul style="list-style-type: none"> • Observe and describe how bulbs have grown into mature plants.

Suggested Investigations	Suggested Investigations	Suggested Investigations
<p>Microhabitats Shake the tree which creatures fall out? Is that what you expected? Why are they there? Where do woodlice live? Investigate a preferred habitat for woodlice Use of I can resource Look at Habitats card and activities. What will happen if questions.</p> <p>Plant Hyacinth bulbs</p>	<p>Building bridges Use different materials to build bridges and test their strengths Card/paper/Lego/blocks Save the Egg Find a dragon's egg. If it was dropped from the castle wall it would break. How can we drop/lower it safely?</p>	<p>Exercise challenge Measure over time Can the children improve their performance running the track outside over time and with regular practise? Try standing jump challenges and measure results Link to sports day preparation Growing Seeds Plant seeds and observe growth. Note the impact of temperature on germination and speed of growth</p>
<p>Vital Vocabulary:</p>	<p>Vital Vocabulary:</p>	<p>Vital Vocabulary:</p>
<p>Living things and their habitats Living, Dead, Habitat, Energy, Food chain, Predator, Prey, Woodland, Pond, Desert</p> <p>Plants Seeds, Bulbs, Water, Light, Temperature, Growth</p>	<p>Everyday materials and their uses Hard, Soft, Stretchy, Stiff, Shiny, Dull, Rough, Smooth, Bendy, Waterproof, Absorbent, Opaque, Transparent Brick, Paper, Fabrics, Squashing, Bending, Twisting, Stretching Elastic, Foil</p> <p>Animals including humans Survival, Water, Air, Food, Adult, Baby, Offspring, Kitten, Calf, Puppy, Exercise, Hygiene</p> <p>Plants Seeds, Bulbs, Water, Light, Temperature, Growth</p>	<p>Animals including humans Survival, Water, Air, Food, Adult, Baby, Offspring, Kitten, Calf, Puppy, Exercise, Hygiene</p> <p>Plants Seeds, Bulbs, Water, Light, Temperature, Growth</p>
<p>Year 2 Enrichment Opportunities:</p>	<p>Year 2 Enrichment Opportunities:</p>	<p>Year 2 Enrichment Opportunities:</p>
<p>Planting of Hyacinth Bulbs part of Richmond Bulbs Growing competition awards in the Spring Term</p>	<p>Titanic Day Floating and Sinking investigation</p>	<p>Flight Day</p>