

Nursery	Reception	Year 1	Year 2
Show curiosity and ask questions		Asking questions and recognising that they can be answered in different ways	
<p>Understand 'why' questions (Communication and language)</p> <ul style="list-style-type: none"> • While playing and exploring, the children demonstrate their curiosity. • While playing and exploring, the children begin to ask 'I wonder ...' questions. • With support, the children think of ideas for answering their questions. 	<p>Ask questions to find out more and to check they understand what has been said to them. (Communication and language)</p> <ul style="list-style-type: none"> • While playing and exploring, the children ask 'I wonder...' questions. • With support, the children develop their ideas for answering their questions. 	<p>Asking simple questions and recognising that they can be answered in different ways</p> <ul style="list-style-type: none"> • While exploring the world, the children develop their ability to ask questions and where appropriate, they answer these questions. • The children answer questions developed with the teacher often through a scenario. 	<p>Asking simple questions and recognising that they can be answered in different ways</p> <ul style="list-style-type: none"> • The children are involved in planning how to use resources provided to answer the questions using different types of scientific enquiry, helping them to recognise that there are different ways in which questions can be answered.
<p>Ask questions about fruit and vegetables</p> <p>Ask questions about different animals</p>	<p>Ask questions to find out what animals and humans need to survive</p>	<p>Extend thinking from waterproof materials to soundproofing, wind proofing, heat proofing</p> <p>Deciding which material is best for the job</p> <p>Watch a clip of the festival of light in St Lucia - Would you rather it be light all the time or dark all the time?</p>	<p>Answering what is alive, dead or never alive by observing, investigating and researching</p> <p>Explain the differences and similarities between plants and animals</p> <p>Explain what a food chain is</p> <p>Giving reasons as to what a predator and prey is</p> <p>Explaining that to be healthy, humans need to exercise, eat the right amounts of different types of food and keep clean</p>

Nursery	Reception	Year 1	Year 2
Make observations using their senses and simple equipment Make direct comparisons Identify, sort and group		Making observations and taking measurements Engaging in practical enquiry to answer questions	
<p>Use all their senses in hands-on exploration of natural materials. (Understanding the world)</p> <p>Explore how things work. (Understanding the world)</p> <p>Use one-handed tools and equipment. (Physical development)</p> <p>Choose the right resources to carry out their own plan (Physical development)</p> <p>Make comparisons between objects relating to size, length, weight and capacity. (Mathematics)</p> <p>Compare quantities using language: 'more than', 'fewer than'. (Mathematics)</p>	<p>Explore the natural world around them. (Understanding the world)</p> <p>Describe what they see, hear and feel whilst outside. (Understanding the world)</p> <p>Develop their small motor skills so that they can use a range of tools competently, safely and confidently. (Physical development)</p> <p>Count objects, actions and sounds. (Mathematics)</p> <p>Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen.</p>	<p>Observing closely, using simple equipment</p> <ul style="list-style-type: none"> • Children explore the world around them. They make careful observations to support identification, comparison and noticing change. <p>They use appropriate senses, aided by equipment such as magnifying glasses or digital microscopes, to make their observations.</p> <ul style="list-style-type: none"> • They begin to take measurements, initially by comparisons, then using non-standard units. <p>Performing simple tests</p> <ul style="list-style-type: none"> • The children use practical resources provided to gather evidence to answer questions generated by themselves or the teacher. They carry out: tests to classify; 	<p>Observing closely, using simple</p> <ul style="list-style-type: none"> • Children explore the world around them. They make careful observations to support identification, comparison and noticing change. <p>They use appropriate senses, aided by equipment such as magnifying glasses or digital microscopes, to make their observations.</p> <ul style="list-style-type: none"> • They begin to take measurements using non-standard and standard units of measurement <p>Performing simple tests</p> <ul style="list-style-type: none"> • The children use practical resources provided to gather evidence to answer questions generated by themselves or the teacher. They carry out: tests to classify;

<p>Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen, or one which is suggested to them. (Personal, social and emotional development)</p> <ul style="list-style-type: none"> • With support, explore the natural and made world using their senses. • With support, the children use magnifying glasses or tablets with magnifiers to make observations. • The children explore using beakers/scoops etc. • Make comparisons between objects (“This leaf is bigger than that one.”) and quantities • While playing and exploring, the children select and use resources for a particular task. • With support, the children sort and group objects. 	<p>(Communication and language)</p> <p>Show resilience and perseverance in the face of challenge. (Personal, social and emotional development)</p> <ul style="list-style-type: none"> • Explore the natural and made world using their senses. • The children use magnifying glasses or tablets with magnifiers to make observations. • The children use smaller pieces of equipment such as syringes and pipettes. • With support, make comparisons, using hands and feet and other non-standard measures e.g. building blocks and beakers. • While playing and exploring, the children, try out using resources to answer a question. •The children test things out to make comparisons • They identify and name objects by matching them with pictures. • The children sort and group objects, sometimes using their own criteria. 	<p>comparative tests; pattern seeking enquiries; and make observations over time.</p> <p>Identifying and classifying</p> <ul style="list-style-type: none"> • Children use their observations and testing to compare objects, materials and living things. <p>They sort and group these things, identifying their own criteria for sorting.</p> <ul style="list-style-type: none"> • They use simple secondary sources (such as identification sheets) to name living things. <p>They describe the characteristics they used to identify a living thing.</p>	<p>comparative tests; pattern seeking enquiries; and make observations over time.</p> <p>Identifying and classifying</p> <ul style="list-style-type: none"> • Children use their observations and testing to compare objects, materials and living things. They sort and group these things, identifying their own criteria for sorting. • They use simple secondary sources (such as identification sheets) to name living things. They describe the characteristics they used to identify a living thing.
<p>Observe closely, using simple equipment Make observations and talk about what they see, using a wide vocabulary.</p> <p>Show care and concern for living things and the environment, e.g. keep plants alive by watering them.</p> <p>Performing simple tests Develop an understanding of growth, decay and changes over time, e.g. observing an apple / banana rotting / school compost heap, wet pile of leaves</p>	<p>Observe closely, using simple equipment Observe what things we can see outside during each season</p> <p>Observe and explain the changes during different seasons</p> <p>Observe that animals need different things to survive</p> <p>Observe different ways oceans become polluted and how to stop it</p> <p>Observe similarities and differences in each other. Measure each other using non standard measures</p> <p>Performing simple tests Create a bug hotel for minibeasts using different materials</p>	<p>Observing closely, using simple equipment identifying the basic structure of plants and trees, Use a magnifying glass to examine parts closely</p> <p>Using a, magnifying glass and iPad and observe bark, branches, insects. Take photos pf the smoothest and roughest bark</p> <p>Look closely at the human body and identify main body parts</p> <p>Look carefully and use senses to discover the properties of materials</p> <p>Observe the sycamore tree in the school grounds - Note the season</p> <p>Use a magnifying glass to observe a frog and toad noticing similarities and differences</p> <p>Use a torch and globe to demonstrate how day and night occurs</p> <p>Performing simple tests Plant a seed and bulb, observe and monitor growth over time</p>	<p>Observing closely, using simple equipment Look for signs of animals in the school environment</p> <p>Observe a bulb growing, what do you notice? – using a magnifying glass and a ruler to measure growth</p> <p>Under headings children find things in the school environment that are alive, dead, or never alive</p> <p>Using images of common invertebrates that could be found in the school grounds – look closely and predict which microhabitat it might be found.</p> <p>Observe using a magnifying glass a common plant, record features.</p> <p>Explore how the shape of everyday materials can be changed, for example by squashing, bending, twisting and stretching</p> <p>Performing simple tests</p>

<p>Identifying and classifying Describe similarities and differences in everyday situations</p> <p>Begin to group and sort using things they find in everyday situations</p> <p>Use all their senses in hands-on exploration of natural materials.</p> <p>Explore collections of materials with similar and / or different properties</p> <p>Identify weather types</p>	<p>Perform a simple experiment to find out what floats and sinks</p> <p>Observe how materials change e.g during cooking</p> <p>Identifying and classifying Identify and classify foods that are healthy and foods that are not healthy</p> <p>Identify different fruits and vegetables</p> <p>Identify different parts of a flower</p> <p>Identify what plants need to grow</p> <p>Identify and classify simple habitats</p> <p>Identify parts of a rainforest</p> <p>Identify different animals that live under the sea</p> <p>Identify similarities and differences in materials</p> <p>Sort materials using own criteria</p>	<p>Using different types of bird food, children to predict which food common garden birds would prefer. Set up a bird feeder to investigate – collect and record data over several days</p> <p>Use the five senses and explain how they help when comparing texture sound and smells</p> <p>Examine food items and predict the type of taste. Use a recording sheet to note where the taste is on their tongue</p> <p>Predict which material there is most of in the classroom</p> <p>Perform a test to find out which materials are waterproof</p> <p>Identifying and classifying identifying the common names of wild and garden plants.</p> <p>Sort leaves by their own criterion e.g. shape, size, colour. Regroup them based on different criterion.</p> <p>Sort the months of the year into a table by season</p> <p>Sort animals into groups by how they move – walking /running, flying or other way</p> <p>Make up a question for a partner by filling in the gap with a chosen feature from their knowledge note – e.g. I am thinking of an animal it has got _____ - what could it be?</p> <p>Organise amphibians, reptiles and fish into 2 groups based on some of the features, represent on table or other method of choosing by children.</p> <p>Sort animals based on what they eat, carnivores, herbivores and omnivores</p>	<p>Knowing and explaining what conditions are needed for seeds to germinate and mature into plants, what hinders the process?</p> <p>Find out what properties everyday materials have</p> <p>Identifying and classifying Sort and group pictures into living or non living</p> <p>Identifying different habitats</p> <p>Identifying local plant</p> <p>Sort pictures to create a food chain</p> <p>Identify predators and not predators</p> <p>Identify invertebrates and vertebrates</p> <p>When building – identifying what is suitable or unsuitable</p>
--	--	--	--

Nursery	Reception	Year 1	Year 2
<p>Record their observations by drawing, taking photographs, using sorting rings or boxes and, in Reception, on simple tick sheets</p>		<p>Recording and presenting evidence</p>	
<p>Talk about what they see, using a wide vocabulary. (Understanding the world)</p> <p>Create closed shapes with continuous lines, and begin to use these shapes to represent objects. (Understanding the world)</p> <p>Draw with increasing complexity and detail, such as representing a face with a circle and including details. (Understanding the world)</p> <ul style="list-style-type: none"> • With support, the children talk about what they have observed. • They sometimes draw and make marks to record their observations. • With support, they use sorting rings and boxes 	<p>Connect one idea or action to another using a range of connectives. (Communication and language)</p> <p>Describe events in some detail. (Communication and language)</p> <ul style="list-style-type: none"> • The children, sometimes, draw and write simple labels to record their observations. • With support, they record their observations and comparisons e.g. using simple prepared tables, taking photographs, using sorting rings and boxes. 	<p>Gathering and recording data to help in answering questions</p> <ul style="list-style-type: none"> • The children record their observations e.g. using photographs, videos, drawings, labelled diagrams or in writing. • They record their measurements e.g. using prepared tables, pictograms, tally charts and block graphs. • They classify using simple prepared tables and sorting rings 	<p>Gathering and recording data to help in answering questions</p> <ul style="list-style-type: none"> • The children record their observations e.g. using photographs, videos, drawings, labelled diagrams or in writing. • They record their measurements e.g. using prepared tables, pictograms, tally charts and block graphs. • They classify using simple prepared tables and sorting rings
	<p>Comment on plant growth over time</p>	<p>identifying explaining different trees in the locality</p> <p>Use a pictogram to answer which season has the most daylight and which has the least</p> <p>Record on a table information about wild plants, do they have flowers, wild plants are grown by humans, wild plants are weeds</p> <p>Conduct a survey of wild plants around the school grounds, record on a table and take photographs</p> <p>Using a venn diagram or table use their knowledge to compare deciduous and evergreen trees</p> <p>Draw an unusual (made up) bird and label it with features to prove that it is a bird – using lables and icons provided such as feathers,beak, lays eggs with hard shell</p> <p>Use a venn diagram to say what is similar and what is different for mammals and birds</p> <p>Record on an ipad orally the difference between a red-eyed tree frog and a common toad</p> <p>Gather materials from the classroom to see which there is most of create a whole class pictogram to support findings</p> <p>Record on a table the materials that are waterproof or not waterproof</p>	<p>Interpreting data from a table about animal numbers and behaviours</p> <p>Using a table with headings record which invertebrates were found in the school grounds</p> <p>Gather information on common plants in the local area. Sketch it, where it was found use a plant app to identify from photographs aswell. Which was common / least common? Flowering / non flowering?, Any animals near by? Record on a table</p> <p>Place living things in order to make a food chain, draw arrows showing the direction of energy and use a ruler. Add labels</p> <p>Complete a table of statements about food chains using always true, sometimes, never true</p> <p>Children to try and prove their decisions by completing a table or verbally when answering statements about food chains – plants are part of a food chain, The biggest animals will always be at the top of the food chain, an animal can be a producer – answer true sometimes true, never true, give proof verbally, pictorially or writing</p> <p>Pattern seeking – Using given information about the number of fish in a pond each year. Children to identify the pattern in the numbers. Give reasons for the change in numbers.13</p>

		<p>Answer the question starting 'In this season....(its is hot / grows..)</p> <p>Sequence pictures that represent different times of the day</p>	<p>Use information from significant scientists to see how they have made useful things from knowing about the properties of materials, such as Charles Macintosh</p>
--	--	--	--

Nursery	Reception	Year 1	Year 2
Use their observations to help them to answer their questions		Answering questions and concluding	
<p>Make comparisons between objects relating to size, length, weight and capacity. (Mathematics)</p> <p>Compare quantities using language: 'more than', 'fewer than'. (Mathematics)</p> <ul style="list-style-type: none"> • With support, the children demonstrate and talk about what they have done and noticed. • With support, the children notice how they made a difference to an outcome and answer the question, where appropriate. • With support, the children make comparisons between objects 	<p>Listen to and talk about selected non-fiction to develop a deep familiarity with new knowledge and vocabulary. (Communication and language)</p> <p>Connect one idea or action to another using a range of connectives. (Communication and language)</p> <p>Describe events in some detail. (Communication and language)</p> <p>Compare length, weight and capacity. (Mathematics)</p> <ul style="list-style-type: none"> • The children talk about what they have observed. • The children demonstrate and talk about what they have found out. • They, sometimes, talk about what they have found out from secondary sources, including non-fiction texts. • The children notice and talk about how they made a difference to an outcome • The children make direct comparisons or use their recorded observations to communicate what they have found out and answer the questions 	<p>Using their observations and ideas to suggest answers to questions</p> <ul style="list-style-type: none"> • Children use their experiences of the world around them to suggest appropriate answers to questions. <p>They are supported to relate these to their evidence e.g. observations they have made, measurements they have taken or information they have gained from secondary sources.</p> <ul style="list-style-type: none"> • The children recognise 'biggest and smallest', 'best and worst' etc. from their data. 	<p>Using their observations and ideas to suggest answers to questions</p> <ul style="list-style-type: none"> • Children use their experiences of the world around them to suggest appropriate answers to questions. <p>They are supported to relate these to their evidence e.g. observations they have made, measurements they have taken or information they have gained from secondary sources.</p> <ul style="list-style-type: none"> • The children recognise 'biggest and smallest', 'best and worst' etc. from their data.
<p>Talk about the differences between materials and changes they notice.</p> <p>Discuss that we wear different clothes or different weather</p> <p>Name obvious body parts on humans and animals</p> <p>Describe the key features of the life cycle of an animal.</p> <p>Identify some differences between animals, e.g. fur / colour / markings</p>	<p>Understand the difference between hot and cold</p> <p>Understand how humans react differently to hot and cold</p> <p>Match animals with their babies</p> <p>Sequence the life cycle of an animal</p> <p>Sequence the lifecycle of a human</p> <p>To understand what global warming is and suggest things to stop climate change</p> <p>Name body parts including heart and brain</p>	<p>explaining the difference between evergreen and deciduous trees, including the influence of season</p> <p>observe fruit and seed cases and compare, answer why are some spiky? Or prickly?, why does a seed nut have a hard shell?, why are the fruits that contain nuts heavy?</p> <p>Discuss a possible answer to each question – Why do mammals have skin, fur or hair?, Why do birds eggs have a hard shell?, Why are birds and mammals warm blooded?</p> <p>explain and group animals by the types of food they eat</p>	<p>Give reasons as to why something is living and non-living</p> <p>Explaining what living things need</p> <p>Answer what a food chain is by looking at a diagram</p> <p>Be able to explain the conditions that plants need to thrive, grow, mature, and reproduce</p> <p>Be able to answer what an animal is</p> <p>Be able to explain that animals, including humans, have offspring which grow into adults</p>

		<p>explain the places (habitats) that fish, amphibians, reptiles, birds and mammals live, justify why</p> <p>Will seeing or feeling be the most important? Use senses to decide the properties of materials</p> <p>Decide on the most important property for an object e.g. towel, cutlery and identify the best material</p> <p>Draw an autumn tree and represent other trees within each season</p> <p>Discuss what do you wear in different seasons?</p> <p>Explain why you have matched a weather symbol to the weather picture</p> <p>Create a picture to celebrate what activities you can do in the daylight</p>	<p>knowing, comparing and explaining the properties and suitability of everyday materials for particular uses, such as glass in windows or bricks for houses</p>
--	--	---	--