

Science Progression Grid Class 1

Autumn 1 Animals Including Humans	Autumn 2 Seasons – Autumn and Winter	Spring 1 Materials	Spring 2 Plants	Summer 1 Seasons – Spring and Summer	Summer 2 Scientists and Inventors
Minimum vocabulary shown in bold			Minimum learning is highlighted in yellow		
What children will know and remember					
<p>To know how to identify and name a variety of common animals including:</p> <p>Fish-fish live and breathe under water, They have scaly skin, fins to help them swim and they breathe through gills. (goldfish, tuna, shark, eel). Amphibians-live in the water as babies and on land as they grow older. They have smooth, slimy skin. (Frog, toad, newt, salamander). Reptiles- all reptiles breathe air. They have scales on their skin. (Snake, tortoise, lizard, alligator). Birds-all have a beak, two legs, feathers and wings. (Penguin, chicken, flamingo, robin). Mammals- are animals that breathe air, grow hair or fur and feed on their mother’s milk as a baby. (Human, mouse, dog, cow).</p>	<p>To know what a season is and name all four.</p> <p>Season- different times during the year with different types of weather.</p> <p>Season names - Autumn, Winter, Spring and Summer.</p>	<p>To know what is a natural material or a manufactured material.</p> <p>Natural materials-rocks, soil, water and wood. These have not been changed in any way.</p> <p>Manufactured material-metals, plastic and glass. These have been changed in some way from raw materials.</p>	<p>To know the difference between wild plant and a garden plant and name some</p> <p>A wild plant is a plant that grows when a seed falls. It does not need to be planted or cared for as it grows. Common wild plants- (dandelion, daisy, buttercup, nettles, ivy)</p> <p>A garden plant is a plant that people choose to grow in their garden. Common garden plants (sunflower, rose, fuchsia, pansy, iris)</p>	<p>To know what a season is and name all four.</p> <p>Season- different times during the year with different types of weather.</p> <p>Season names - Autumn, Winter, Spring and Summer.</p>	<p>To know what Ole Kirk Christiansen invented.</p> <p>He invented Lego, he started making connecting bricks in 1949. He lives in Denmark. He named his toy company ‘Lego’ because it sounds like the Danish words ‘leg godt’ which means play well. Linked to materials</p>
<p>To know the names of common animals that are:</p> <p>Carnivores-animals that mostly eat other animals meat, (lion, cat, dog)</p> <p>Herbivores- animals that only eat plants (cow, rabbit, elephant)</p> <p>Omnivores- animals that eat both plants and other animals (pig, fox, rat)</p>	<p>To know what weather means and name different types of weather.</p> <p>Weather is the way the air and atmosphere feel.</p> <p>Weather- wind, rain, sun, snow, thunder and lightning.</p>	<p>To know the name of every day materials and that the same material can make different objects.- wood, plastic, glass, metal, water and rock</p>	<p>To know that a weed is a wild plant that grow in places people don’t want them.</p>	<p>To know that daylight is when it is light outside. The amount of daylight change with each season.</p>	<p>To know what George Mottershead invented and why.</p> <p>George was as shopkeeper who designed and planned his own zoo near Chester. This was the first modern zoo without cages In England. Linked to animals including humans.</p>

<p>To know the features of common animals (fins, scaly, gills, slimy, feet, skin, hard shell, rough, scaly, feathers, beak, wings, claws, legs, fur, hair).</p>	<p>To know that there are changes between the seasons Autumn and Winter- Autumn the leaves on some trees change colour and begin to fall to the ground. The days get shorter and the nights get longer.</p>	<p>To know the names of specific objects and which materials they are made from - teddy bear, rock, table, tin can, Lego bricks, mirror, chair, and door. Material- is what an object is made out. Object- is something you can touch/ can be used.</p>	<p>To know there are deciduous trees and evergreen trees. Deciduous trees lose their leaves each year. (oak, beech and maple) An evergreen tree keeps its green leaves all year round.(cedar, spruce and pine)</p>	<p>To know that there are changes between the seasons Spring and Summer- In Spring, the weather starts to get warmer. Leaves begin to grow and some trees may have blossom. Days start to have more daylight hours.</p>	<p>To know what a horticulturist is and why they invented sensory gardens. Horticulturist are plant scientists. Sensory gardens have plants which appeal to all our senses. Linked to plants</p>
<p>To know the names of the basic body parts (Ear, nose, neck, hand, eye, teeth, mouth, shoulder, arm, leg, foot, head, hair)</p>	<p>To know that there are changes between the seasons Autumn and Winter- Winter- Temperature drops so it becomes colder. Overnight temperature can fall low and we may notice frost and ice on a morning. Has the shortest days and the nights longer. Need to wear warmer clothes</p>		<p>To know the names of the parts of a common flowering plant including trees.(roots, stem, leaves, flowers, petals, fruit, seed, bulb, blossom, bark, branches and trunk.</p>	<p>To know that there are changes between the seasons Spring and Summer- In Summer, the weather gets hotter. Days in summer have the most daylight hours. Trees are full of leaves and there are lots of flowers, bees, butterflies and other insects</p>	<p>To know and name a meteorologist. Meteorologists are scientists who study the weather. Richard Towneley was the first meteorologist to record rainfall regularly. He used a rain gauge to measure the rain every day for 15 years running. George James Symons was a meteorologist to study rainfall/ He also invented a new type of rain gauge in his own garden, which is still used by British forecasters today. Linked to seasons</p>
<p>To know which body part is associated with each sense. Sight- humans use their eyes to see Hearing-humans use ears to hear, your ears collect all the sounds around you. Your brain sorts these sounds out. Smell- you use your nose to smell, you can smell thousands of different scents Touch- this sense comes from your skin. Taste- you use your tongue to taste, it has lots of taste buds to help you taste sweet, sour, salty and bitter foods.</p>	<p>To know how to measure and record weather across the season using a thermometer. A thermometer is an instrument used to measure temperature.</p>	<p>To know the physical properties of different materials. Hard- not easily broken or bent Soft-it is easy to cut, fold or change the shape of. Stretchy-can be pulled to make it longer or wider without breaking. Stiff- rigid or firm; difficult to bend. Shiny- reflects light easily. Dull-doesn't reflect light. Doesn't look bright or shiny. Rough-feels and looks uneven or bumpy Smooth-has no lumps or bumps Bendy/not bendy-things can be bent easily.</p>	<p>To know what each part of a plant/trees does. Roots- take in water and nutrients from the soil and keep the plant in the ground. Stem- the stem holds the plant up and carries the water and nutrients from the root to the leaves and flowers. Leaves- catch sunlight to help the plant make its own food. Flowers- attract insects and birds. Petals-are special leaves that can be white or coloured that form part of the flower. Fruit- contains the plant's seed.</p>		<p>To know who Linda Brown Buck is and what type of scientist she is. Linda Brown Buck is a biologist. A biologist is scientist that finds out about living things. Her most famous work was all about how we can smell things. She did lots of different experiments with different scents to see how people smelled them. Linked to animals including humans.</p>

		<p>Waterproof/not- keeps water out, keeps things dry.</p> <p>Absorbent/not- it soaks liquid up</p> <p>Opaque-objects can't be seen through</p> <p>Transparent-objects can be seen through</p>	<p>Seed- a part of a plant that can grow into a new plant</p> <p>Bulb- a part of a plant that can grow into a new plant</p> <p>Blossom- flowers on a tree</p> <p>Bark- is the outer layer of the tree trunk.</p> <p>Branches- part of the tree that grows off the main trunk; they grow leaves and sometimes blossom or fruit.</p> <p>Trunk- the stem of a tree.</p>		
--	--	--	--	--	--

Disciplinary skills and knowledge

<p>To use observational skills to compare and contrast animals at first hand or through videos and photographs, describing how they identify and group them; according to what they eat; and using their senses to compare different textures, sounds and smells.</p>	<p>To observe closely using simple equipment. Gather and record data to help in answering questions. Recognise changes over time.</p>	<p>To perform simple tests to explore questions for example 'What is the best material for an umbrella?'</p>	<p>To use observational skills and simple equipment to compare and contrast. Grouping different types of plants/trees. Record changes over time.</p>	<p>To observe closely using simple equipment. Gather and record data to help in answering questions. Recognise changes over time.</p>	<p>To use observations to suggest answers to questions by thinking about why.</p>
---	---	--	--	---	---