

# WBIS Science Knowledge and Skills Progression

## Progression of Knowledge

	Reception	Year 1	Year 2
<b>Plants</b>	<p>Plants and seeds need water, sunlight, air and warmth to grow</p> <p>Plants and trees are living things. They can be identified according to their features such as leaves, seeds and flowers</p> <p>Some plants produce seeds so they can grow new plants</p> <p>Plants grow from seeds</p> <p>Seeds need water, air and warmth to begin to grow</p> <p>As a plant grows bigger it develops leaves and sometimes flowers</p>	<p>Plants are living things.</p> <p>Trees are either evergreen or deciduous.</p> <p>The leaves of deciduous trees are large and fat, and fall from trees in the autumn</p> <p>The leaves of most evergreen trees are thin and pointed</p> <p>The basic plant parts include root, stem, leaf, flower, petal and fruit</p> <p>Plants grow from seeds or bulbs</p> <p>Changes happen to plants as they grow and mature</p>	<p>Plants need water, light and a suitable temperature to grow and stay healthy</p> <p>Many plants grow from seeds or bulb</p> <p>Plants have roots stems, leaves, flowers, petals and fruit</p> <p>A bulb contains a tiny plant and the food they need to grow into mature plants</p> <p>Seeds need water, air and warmth to start growing (germinate)</p> <p>The flowers of plants produce seeds. Some flowers on plants develop into fruit that contain seeds</p>
<b>Animals, Including Humans</b>	<p>Understand basic body parts and to understand that different body parts are used for different things.</p> <p>Animals are living things</p> <p>There are many different species of animals</p> <p>Different animals have specific features e.g. birds have feathers and a beak, insects have 6 legs, fish have gills to breathe etc</p> <p>To look at and begin to understand the life cycle of a butterfly</p>	<p>Understand basic body parts and to understand that different body parts are used for different things.</p> <p>Humans need water, food, air and shelter to survive</p> <p>Humans are living things, they are called mammals.</p> <p>Fish, amphibians, reptiles, birds and mammals are groups of animals, including pets</p> <p>Different animal groups have some common body parts</p> <p>Carnivores eat other animals, herbivores eat plants and omnivores eat animals and plants</p>	<p>Humans grow from baby to toddler, to child, to teenager, to adult to elderly</p> <p>Humans need water, food, air and shelter to survive</p> <p>A healthy life style includes exercise, a balanced diet, sleep and personal hygiene</p> <p>Animals are born or hatch from eggs. The young grow and change</p> <p>Food chains show how living things depend on one another for food.</p> <p>Plants always start a food chain</p>

		Animals eat different kinds of food including other animals, plants or both animals and plants	Prey may have different ways to avoid capture by predators  Plants have adaptations that protect them from being eaten by animals
<b>Everyday Materials</b>	<p>Some objects float and others sink.</p> <p>An object that floats stays on the water's surface</p> <p>Materials have different textures</p> <p>Soft materials bend easily</p> <p>Hard materials are difficult to bend, break or cut</p> <p>Some materials are magnetic others are non-magnetic</p> <p>(accessed through continuous and enhanced provision opportunities)</p>	<p>Objects, materials and living things can be looked at and compared and grouped by character</p> <p>A material is what an object is made from</p> <p>Everyday materials include, wood, glass, metal, brick, paper, plastic and fabric</p> <p>Materials have different properties</p> <p>Objects can be made from one material, more than one material or different materials with similar properties</p>	<p>Objects, materials and living things can be looked at, compared and grouped according to their features</p> <p>A materials properties make it suitable for particular purposes</p> <p>Objects can be made from one material, more than one material or different materials with similar properties</p> <p>Everyday materials include, wood, glass, metal, brick, paper, plastic, rock, cardboard and fabric</p> <p>Solid shapes can be changed by squashing, bending, twisting and stretching</p>
<b>Seasonal Changes</b>	<p>The weather and environment changes with the seasons</p> <p>The days are longer in the Summer and shorter in the Winter</p>	<p>The four seasons are Spring, Summer, Autumn and Winter</p> <p>Events and weather patterns happen in different seasons</p> <p>Day length is longer in the summer months and shorter in the winter months</p> <p>The weather can change daily and some weather is more common in certain seasons- e.g. snow in winter</p> <p>Deciduous trees change across the four seasons</p> <p>Changes happen to animals and plants across the four seasons</p> <p>Changes happen to plants at they grow and mature</p>	<p>The UK's weather has typical weather for each season</p> <p>Many animals behave differently in different seasons- e.g hibernation, migration</p> <p>The world is spherical and is covered in land and sea. When it is daytime in location, it is night time on the other side of the world.</p>

<b>Living things and their Habitats</b>	<p>Animals live in different habitats</p> <p>Plants and trees are living things</p> <p>The ocean is the habitat for many animals</p> <p>A farm is an area of land and its buildings used for growing crops and keeping animals</p>	<p>Animals including fish, birds, frogs and some reptiles lay eggs</p> <p>Animals live in different habitats</p> <p>Living things need to be cared for to survive</p> <p>Living things need water, food, warmth and shelter</p>	<p>Animals live in different habitats to which they are suited</p> <p>A habitat is place where plants or animals live</p> <p>A microhabitat is a very small habitat</p> <p>A habitat must provide water, food, air and shelter</p> <p>Animals eat food that is found in their habitat</p>
---	--	---	---

## Progression of Skills

	Reception	Year 1	Year 2
Asking Questions	To be curious and investigate ideas	Ask simple questions recognising that they can be answered in different way	<p>Ask relevant questions and use different types of scientific enquiry to answer them</p> <p>Suggest improvements and raise further questions</p> <p>Use scientific evidence to answer questions, to support their findings</p>
Making Predictions	To make links and say what they think may happen	Identify and classify within an activity to predict before testing	Make a prediction based on a valid reason
Setting Up Tests	To participate and contribute to performing a test	Perform simple tests following a set of instructions	Set up own and directed practical enquiries, comparative and fair tests
Observing and Measuring	To notice and comment on observations	<p>Observe closely, using simple equipment</p> <p>Use observations and ideas to suggest answers to questions</p>	Make systematic and careful observations and where appropriate, take accurate measurements using standard units, using a range of equipment, including ....
Recording, interpreting and evaluating results	To use lived experiences and recording methods to find an answer	<p>Gather and record data to help in answering questions</p> <p>Represent findings through tables, drawing, pictograms</p>	<p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables</p> <p>Use results to draw simple conclusions, make predictions for new values</p> <p>Use relevant simple scientific language to discuss ideas and report on finding</p>

