



# Pear Tree Primary School

## Science Curriculum Planning KS2 Years One & Two Being Our Best Selves End points

Year One Topic	End Points	Key Vocabulary
Plants	<p>I can explain that growing locally, there will be a vast array of plants which all have specific names. These can be identified by looking at the key characteristics of the plant. Plants have common parts, but they vary between the different types of plants. Some trees keep their leaves all year while other trees drop their leaves during autumn and grow them again during spring.</p>	<p>Leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud Names of trees in the local area Names of garden and wild flowering plants in the local area</p>
Animals, including humans	<p>I can explain animals vary in many ways having different structures e.g. wings, tails, ears etc. They also have different skin coverings e.g. scales, feathers, hair. These key features can be used to identify them.</p> <p>I can explain animals eat certain things - some eat other animals, some eat plants, some eat both plants and animals.</p> <p>I can explain humans have key parts in common, but these vary from person to person.</p> <p>I can explain humans (and other animals) find out about the world using their senses. Humans have five senses – sight, touch, taste, hearing and smelling. These senses are linked to particular parts of the body.</p>	<p>Head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves Names of animals experienced first-hand from each vertebrate group Parts of the body Senses – touch, see, smell, taste, hear, fingers (skin), eyes, nose, ear and tongue</p>
Everyday materials	<p>I can explain all objects are made of one or more materials. Some objects can be made from different materials e.g. plastic, metal or wooden spoons.</p>	<p>Object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric,</p>

	I can explain materials can be described by their properties e.g. shiny, stretchy, rough etc. Some materials e.g. plastic can be in different forms with very different properties.	elastic, foil, card/cardboard, rubber, wool, clay, hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/tears, rough, smooth, shiny, dull, see-through, not see-through
Seasonal changes	<p>I can explain in the UK, the day length is longest at mid-summer (about 16 hours) and gets shorter each day until mid-winter (about 8 hours) before getting longer again.</p> <p>I can explain the weather also changes with the seasons. In the UK, it is usually colder and rainier in winter, and hotter and dryer in the summer. The change in weather causes many other changes. Some examples are: numbers of minibeasts found outside; seed and plant growth; leaves on trees; and type of clothes worn by people.</p>	<p>Weather (sunny, rainy, windy, snowy etc.)</p> <p>Seasons (winter, summer, spring, autumn)</p> <p>Sun, sunrise, sunset, day length</p>
<b>Year Two Topic</b>	<b>End Point</b>	<b>Key Vocabulary</b>
Living things and their habitat	<p>I can explain all objects are either living, dead or have never been alive. Living things are plants (including seeds) and animals. Dead things include dead animals and plants and parts of plants and animals that are no longer attached e.g. leaves and twigs, shells, fur, hair and feathers (This is a simplification, but appropriate for Year 2 children.)</p> <p>I can explain an object made of wood is classed as dead. Objects made of rock, metal and plastic have never been alive (again ignoring that plastics are made of fossil fuels).</p> <p>I can explain animals and plants live in a habitat to which they are suited, which means that animals have suitable features that help them move and find food and plants have suitable features that help them to grow well. The habitat provides the basic needs of the animals and plants – shelter, food and water.</p> <p>I can explain within a habitat there are different micro-habitats e.g. in a woodland – in the leaf litter, on the bark of trees, on the leaves. These micro-habitats have different conditions e.g. light or dark, damp or dry. These conditions affect which plants and animals live there. The plants and animals in a habitat depend on each</p>	<ul style="list-style-type: none"> <li>• Living, dead, never been alive, suited, suitable, basic needs, food, food chain, shelter, move, feed</li> <li>• Names of local habitats e.g. pond, woodland etc.</li> <li>• Names of micro-habitats e.g. under logs, in bushes etc.</li> </ul>

	other for food and shelter etc. The way that animals obtain their food from plants and other animals can be shown in a food chain.	
Plants	<p>I can explain plants may grow from either seeds or bulbs. These then germinate and grow into seedlings which then continue to grow into mature plants. These mature plants may have flowers which then develop into seeds, berries, fruits etc.</p> <p>I can explain seeds and bulbs need to be planted outside at particular times of year and they will germinate and grow at different rates. Some plants are better suited to growing in full sun and some grow better in partial or full shade. Plants also need different amounts of water and space to grow well and stay healthy.</p>	As for Year 1 plus light, shade, sun, warm, cool, water, grow, healthy
Animals, including humans	<p>I can explain animals, including humans, have offspring which grow into adults. In humans and some animals, these offspring will be young, such as babies or kittens, that grow into adults. In other animals, such as chickens or insects, there may be eggs laid that hatch to young or other stages which then grow to adults. The young of some animals do not look like their parents e.g. tadpoles.</p> <p>I can explain all animals, including humans, have the basic needs of feeding, drinking and breathing that must be satisfied in order to survive. To grow into healthy adults, they also need the right amounts and types of food and exercise.</p> <p>I can explain good hygiene is also important in preventing infections and illnesses.</p>	Offspring, reproduction, growth, child, young/old stages (examples - chick/hen, baby/child/adult, caterpillar/butterfly), exercise, heartbeat, breathing, hygiene, germs, disease, food types (examples – meat, fish, vegetables, bread, rice, pasta)
Uses of everyday materials	<p>I can explain all objects are made of one or more materials that are chosen specifically because they have suitable properties for the task. For example, a water bottle is made of plastic because it is transparent allowing you to see the drink inside and waterproof so that it holds the water. When choosing what to make an object from, the properties needed are compared with the properties of the possible materials, identified through simple tests and classifying activities. A material can be suitable for different purposes and an object can be made of different materials.</p> <p>I can explain objects made of some materials can be changed in shape by bending, stretching, squashing and twisting. For example, clay can be shaped by squashing, stretching, rolling, pressing etc. This can be a property of the material or depend on how the material has been processed e.g. thickness.</p>	<p>Names of materials – wood, metal, plastic, glass, brick, rock, paper, cardboard</p> <p>Properties of materials – as for Year 1 plus opaque, transparent and translucent, reflective, nonreflective, flexible, rigid</p> <p>Shape, push/pushing, pull/pulling, twist/twisting, squash/squashing, bend/bending, stretch/stretching</p>

## Working scientifically skills

# Year 1 & 2

## End points

### Asking simple questions and recognising that they can be answered in different ways

- While exploring the world, I can develop my ability to ask questions (such as what something is, how things are similar and different, the ways things work, which alternative is better, how things change and how they happen). Where appropriate, I answer these questions.
- I can answer questions developed with the teacher often through a scenario.
- I can be involved in planning how to use resources provided to answer the questions using different types of enquiry, helping me to recognise that there are different ways in which questions can be answered.

### Observing closely, using simple equipment

- I can explore the world around me. I can make careful observations to support identification, comparison and noticing change. I can use appropriate senses, aided by equipment such as magnifying glasses or digital microscopes, to make observations.
- I can begin to take measurements, initially by comparisons, then using non-standard units.

### Performing simple tests

- I can use practical resources provided to gather evidence to answer questions generated by myself or the teacher. I can carry out: tests to classify; comparative tests; pattern seeking enquiries; and make observations over time.

### Identifying and classifying

- I can use my observations and testing to compare objects, materials and living things. I can sort and group these things, identifying my own criteria for sorting.
- I can use simple secondary sources (such as identification sheets) to name living things. I can describe the characteristics I used to identify a living thing.

### Gathering and recording data to help in answering questions

- I can record my observations e.g. using photographs, videos, drawings, labelled diagrams or in writing.
- I can record my measurements e.g. using prepared tables, pictograms, tally charts and bar charts.
- I can classify using simple prepared tables and sorting rings.

### Using their observations and ideas to suggest answers to questions

- I can use my experiences of the world around me to suggest appropriate answers to questions. I am supported to relate these to my evidence e.g. observations I have made, measurements I have taken or information I have gained from secondary sources.
- I can recognise 'biggest and smallest', 'best and worst' etc. from their data.