

National Curriculum Requirements of Science at Key Stage 1

The principal focus of science teaching in key stage 1 is to enable pupils to experience and observe phenomena, looking more closely at the natural and humanly constructed world around them. They should be encouraged to be curious and ask questions about what they notice. They should be helped to develop their understanding of scientific ideas by using different types of scientific enquiry to answer their own questions, including observing changes over a period of time, noticing patterns, grouping and classifying things, carrying out simple comparative tests, and finding things out using secondary sources of information. They should begin to use simple scientific language to talk about what they have found out and communicate their ideas to a range of audiences in a variety of ways. Most of the learning about science should be done through the use of first-hand practical experiences, but there should also be some use of appropriate secondary sources, such as books, photographs and videos.

Working scientifically

During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- asking simple questions and recognising that they can be answered in different ways
- observing closely, using simple equipment
- performing simple tests
- identifying and classifying
- using their observations and ideas to suggest answers to questions
- gathering and recording data to help in answering questions

Plants

Year One

Pupils should use the local environment throughout the year to explore and answer questions about plants growing in their habitat. Where possible, they should observe the growth of flowers and vegetables that they have planted.

What grows in and around our school?
How does it grow?
Are all plants the same?
What are the parts of a plant?
How do plants change during the year?

Year Two

Pupils should use the local environment throughout the year to observe how plants grow. Pupils should be introduced to the requirements of plants for germination, growth and survival, as well as the processes of reproduction and growth in plants.

Plants - how seeds and bulbs grow into mature plants; how plants need water, light and heat to grow.

Animals, including humans	
Year One	Year Two
<p>Pupils should use the local environment throughout the year to explore and answer questions about animals in their habitat. They should understand how to take care of animals taken from their local environment and the need to return them safely after study. Pupils should become familiar with the common names of some fish, amphibians, reptiles, birds and mammals, including those that are kept as pets. What are animals and where do they live?</p> <p>Pupils should have plenty of opportunities to learn the names of the main body parts (including head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth, teeth) through games, actions, songs and rhymes.</p> <p>What do they eat?</p> <p>Can I group animals by their similarities?</p> <p>What are the different parts of the body?</p> <p>What facial features do we all have?</p> <p>Do taller people have bigger feet?</p> <p>How do I use my senses?</p>	<p>Pupils should be introduced to the basic needs of animals for survival, as well as the importance of exercise and nutrition for humans. They should also be introduced to the processes of reproduction and growth in animals. The focus at this stage should be on questions that help pupils to recognise growth; they should not be expected to understand how reproduction occurs.</p> <p>Living things and their habitats - explore differences between things that are living, dead and never alive; most living things live in habitats to which they are suited</p> <p>Animals, including humans, have offspring; basic needs of animals; importance for humans to exercise, diet and hygiene.</p>
Everyday Materials	
Year One	Year Two
<p>Pupils should explore, name, discuss and raise and answer questions about everyday materials so that they become familiar with the names of materials and properties such as: hard/soft; stretchy/stiff; shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; opaque/transparent. Pupils should explore and experiment with a wide variety of materials, not only those listed in the programme of study, but including for example: brick, paper, fabrics, elastic, foil.</p> <p>What is a material?</p> <p>What materials can we find in our classroom?</p> <p>Can I sort materials by their properties?</p> <p>Can I choose a suitable material for its job?</p>	<p>Pupils should identify and discuss the uses of different everyday materials so that they become familiar with how some materials are used for more than one thing or different materials are used for the same thing. They should think about the properties of materials that make them suitable or unsuitable for particular purposes and they should be encouraged to think about unusual and creative uses for everyday materials.</p> <p>Uses of everyday materials - suitability of materials; how the shapes of solid objects can be changed.</p>

Materials investigations.	
Seasonal Changes	
Year One	Year Two
Pupils should observe and talk about changes in the weather and the seasons including: observe changes across the 4 seasons observe and describe weather associated with the seasons and how day length varies.	
Living things and their habitats	
Year One	Year Two
	<p>Pupils should be introduced to the idea that all living things have certain characteristics that are essential for keeping them alive and healthy. They should raise and answer questions about the local environment that help them to identify and study a variety of plants and animals within their habitat and observe how living things depend on each other, for example, plants serving as a source of food and shelter for animals.</p> <p>How animals obtain their food from plants and other animals, including simple food chains.</p>