



Year 2 Science

Working Scientifically

2.WS1 - Asking simple questions and recognising that they can be answered in different ways

Not Met	Shallow	Emerging	Developing	Deepening	Functional
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2.WS2 - Observing closely, using simple equipment

Not Met	Shallow	Emerging	Developing	Deepening	Functional
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2.WS3 - Performing simple tests

Not Met	Shallow	Emerging	Developing	Deepening	Functional
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2.WS4 - Identifying and classifying

Not Met	Shallow	Emerging	Developing	Deepening	Functional
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2.WS5 - Using their observations and ideas to suggest answers to questions

Not Met	Shallow	Emerging	Developing	Deepening	Functional
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2.WS6 - Gathering and recording data to help in answering questions

Not Met	Shallow	Emerging	Developing	Deepening	Functional
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Pupils in years 1 and 2 should explore the world around them and raise their own questions. They should experience different types of scientific enquiries, including practical activities, and begin to recognise ways in which they might answer scientific questions.

They should use simple features to compare objects, materials and living things and, with help, decide how to sort and group them, observe changes over time, and, with guidance, they should begin to notice patterns and relationships.

They should ask people questions and use simple secondary sources to find answers

They should use simple measurements and equipment (for example, hand lenses, egg timers) to gather data, carry out simple tests, record simple data, and talk about what they have found out and how they found it out. With help, they should record and communicate their findings in a range of ways and begin to use simple scientific language.

These opportunities for working scientifically should be provided across years 1 and 2 so that the expectations in the programme of study can be met by the end of year 2. Pupils are not expected to cover each aspect for every area of study.

Year 2 Science

Living Things

2.LT1 - Explore and compare the differences between things that are living, dead, and things that have never been alive

Not Met	Shallow	Emerging	Developing	Deepening	Functional
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2.LT2 - Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other					
Not Met	Shallow	Emerging	Developing	Deepening	Functional
2.LT3 - Identify and name a variety of plants and animals in their habitats, including microhabitats					
Not Met	Shallow	Emerging	Developing	Deepening	Functional
2.LT4 - Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food					
Not Met	Shallow	Emerging	Developing	Deepening	Functional
<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 that help them to become familiar with the life processes that are common to all living things. Pupils should be introduced to the terms 'habitat' (a natural environment or home of a variety of plants and animals) and 'microhabitat' (a very small habitat, for example for woodlice under stones, logs or leaf litter). 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. Pupils should compare animals in familiar habitats with animals found in less familiar habitats, for example, on the seashore, in woodland, in the ocean, in the rainforest.</p> <p>Pupils might work scientifically by: sorting and classifying things according to whether they are living, dead or were never alive, and recording their findings using charts. They should describe how they decided where to place things, exploring questions like: 'Is a flame alive? Is a deciduous tree dead in winter?' and talk about ways of answering their questions. They could construct a simple food chain that includes humans (eg, grass, cow, human). They could describe the conditions in different habitats and microhabitats (under log, on stony path, under bushes); and find out how the conditions affect the number and type(s) of plants and animals that live there.</p>					

Year 2 Science					
Plants					
2.P1 - Observe and describe how seeds and bulbs grow into mature plants					
Not Met	Shallow	Emerging	Developing	Deepening	Functional
2.P2 - Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy					
Not Met	Shallow	Emerging	Developing	Deepening	Functional
<p>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. Note: seeds and bulbs need water to grow but most do not need light; seeds and bulbs have a store of food inside them.</p> <p>Pupils might work scientifically by: observing and recording, with some accuracy, the growth of a variety of plants as they change over time from a seed or bulb, or observing similar plants at different stages of growth; setting up a comparative test to show that plants need light and water to stay healthy.</p>					



Animals, Including Humans

2.A1 - Notice that animals, including humans, have offspring which grow into adults

Not Met	Shallow	Emerging	Developing	Deepening	Functional
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2.A2 - Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)

Not Met	Shallow	Emerging	Developing	Deepening	Functional
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2.A3 - Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene

Not Met	Shallow	Emerging	Developing	Deepening	Functional
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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.

The following examples might be used: egg, chick, chicken; egg, caterpillar, pupa, butterfly; spawn, tadpole, frog; lamb, sheep. Growing into adults can include reference to baby, toddler, child, teenager, adult.

Pupils might work scientifically by: observing, through video or first-hand observation and measurement, how different animals, including humans, grow; asking questions about what things animals need for survival and what humans need to stay healthy; and suggesting ways to find answers to their questions.

Year 2 Science

Everyday Materials

2.EM1 - Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses

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2.EM2 - Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching

Not Met	Shallow	Emerging	Developing	Deepening	Functional
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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 (metal can be used for coins, cans, cars and table legs; wood can be used for matches, floors, and telegraph poles) or different materials are used for the same thing (spoons can be made from plastic, wood, metal, but not normally from glass). 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. Pupils might find out about people who have developed useful new materials, for example John Dunlop, Charles Macintosh or John McAdam.

Pupils might work scientifically by: comparing the uses of everyday materials in and around the school with materials found in other places (at home, the journey to school, on visits, and in stories, rhymes and songs); observing closely, identifying and classifying the uses of different materials, and recording their observations.