



Science progression of knowledge, skills and vocabulary

Our Science curriculum fosters curiosity about the natural world and develops pupils' understanding of how living things, materials and environments work. Through carefully sequenced learning, children build secure knowledge about plants, animals, materials, habitats and seasonal change.

Learning progresses from exploration and observation in the Early Years to more structured scientific enquiry by the end of Key Stage 1. Pupils learn to notice patterns, ask questions, compare results and begin to explain what they observe using scientific vocabulary.

Working Scientifically is woven throughout the curriculum. Children develop the ability to observe closely, carry out simple tests, record their findings and use evidence to explain their ideas. These experiences help pupils begin to think and work like scientists.

By the end of Key Stage 1, pupils have developed the foundations of scientific thinking and enquiry that prepare them to deepen their understanding of scientific concepts and investigative approaches in Key Stage 2.

Bridge Statement – EYFS to Key Stage 1

In the Early Years Foundation Stage, children explore the natural world around them through observation, discussion and hands-on experiences. They notice patterns, describe changes in plants, animals and weather, and begin to sort and compare living and non-living things.

This provides a secure foundation for Key Stage 1, where pupils build a deeper scientific understanding of plants, animals, materials, habitats and seasonal change. Through practical investigation and structured enquiry, children learn to observe closely, ask questions, test ideas and record their findings.

These experiences help pupils develop the early habits of scientific thinking, preparing them to work increasingly independently and analytically as scientists in Key Stage 2.

Plants

Bridge Statement:

In EYFS, children explore the natural world around them and begin to understand growth, decay, and change. This prepares them to observe, identify, and compare plants scientifically in KS1.

| Aspect | EYFS | Year 1 | Year 2 |
|---------------------------------------|--|--|---|
| Substantive (Sticky) Knowledge | <ul style="list-style-type: none"> • I know that plants grow and change. • I know that plants are living things. | <ul style="list-style-type: none"> • I know that plants grow from seeds and bulbs. • I know that plants need water, light and warmth to grow. • I know the main parts of a plant: root, stem, leaf and flower. • I know that trees and plants are living things. | <ul style="list-style-type: none"> • I know that seeds and bulbs grow into mature plants. • I know that plants need water, light and the right temperature to grow well. • I know that plants produce seeds or fruit to make new plants. • I know that plants depend on their environment to survive. |
| Tier 2 Vocabulary | grow, change | change, healthy, needs | Growth, conditions |
| Tier 3 Vocabulary | plant, seed | plant, seed, root, stem, leaf, flower, tree, bulb | seed, bulb, germination, root, stem, leaf, flower |

Animals Including Humans

Bridge Statement:

In EYFS, children learn about the world around them, noticing similarities and differences between animals and humans. This prepares them to identify, classify, and understand the basic needs of living things in KS1

| Aspect | EYFS | Year 1 | Year 2 |
|---------------------------------------|---|--|---|
| Substantive (Sticky) Knowledge | <ul style="list-style-type: none"> • I know that animals and humans are living things. • I know that animals and humans grow and change. • I know that animals need food and care. | <ul style="list-style-type: none"> • I know that animals, including humans, need food, water and air to survive. • I know animals can be grouped as mammals, birds, fish, reptiles and amphibians. | <ul style="list-style-type: none"> • I know animals, including humans, have offspring that grow into adults. • I know humans need water, food and air to survive. |

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|--------------------------|---------------|--|---|
| | | <ul style="list-style-type: none"> I know humans have five senses. I know animals eat different foods: herbivores, carnivores and omnivores. | <ul style="list-style-type: none"> I know exercise, diet and hygiene help humans stay healthy. I know the basic stages of human growth. |
| Tier 2 Vocabulary | care, grow | healthy, survive, care | growth, healthy, survival |
| Tier 3 Vocabulary | animal, human | animal, human, mammal, bird, fish, reptile, amphibian, carnivore, herbivore, omnivore, sense | offspring, adult, hygiene, exercise, nutrition |

Everyday Materials

Bridge Statement:

In EYFS, children explore materials in their environment through touch, sight, and simple play. This prepares them to identify, compare, and describe materials scientifically in KS1.

| Aspect | EYFS | Year 1 | Year 2 |
|---------------------------------------|--|---|---|
| Substantive (Sticky) Knowledge | <ul style="list-style-type: none"> I know that objects are made from different materials. I know materials can feel different (hard, soft, rough, smooth). I know materials can change. | <ul style="list-style-type: none"> I know objects are made from different materials. I know materials have different properties such as hard, soft, rough or smooth. I know materials are chosen for different purposes. | <ul style="list-style-type: none"> I know materials can change shape by bending, twisting, stretching or squashing. I know some materials are more suitable for certain uses than others. I know the same object can be made from different materials. |
| Tier 2 Vocabulary | explore, change | property, suitable | suitable, change |
| Tier 3 Vocabulary | material | material, wood, plastic, metal, glass, fabric, waterproof, absorbent | material, property, solid, bend, twist, stretch, squash |

Seasonal Changes

Bridge Statement:

In EYFS, children observe weather and changes in the environment across the year. This prepares them to describe and record seasonal patterns scientifically in KS1.

| Aspect | EYFS | Year 1 | Year 2 |
|---------------------------------------|--|--|--|
| Substantive (Sticky) Knowledge | <ul style="list-style-type: none"> • I know that weather changes from day to day. • I know that the environment changes through the year. • | <ul style="list-style-type: none"> • I know there are four seasons: spring, summer, autumn and winter. • I know the weather changes across the seasons. • I know the length of the day changes across the seasons. • I know plants and animals change throughout the year. | <ul style="list-style-type: none"> • I know that seasonal patterns affect plants, animals and people. |
| Tier 2 Vocabulary | notice, change | season, weather | |
| Tier 3 Vocabulary | weather | season, spring, summer, autumn, winter, weather, temperature | |

Living Things and Their Habitats

Bridge Statement:

In EYFS, children learn about living things and the places they live. This prepares them to identify, describe, and compare habitats scientifically in KS1.

| Aspect | EYFS | Year 1 | Year 2 |
|---------------------------------------|--|---|---|
| Substantive (Sticky) Knowledge | <ul style="list-style-type: none"> • I know that living things exist in the environment. • I know that animals and plants live in different places. • I know that living things need food, water and shelter. | <ul style="list-style-type: none"> • I know that plants and animals are living things. | <ul style="list-style-type: none"> • I know that living things live in habitats suited to their needs. • I know habitats provide food, water, air and shelter. • I know things can be living, dead or never alive. • I know animals get their food from plants or other animals. • |
| Tier 2 Vocabulary | care, environment | | Care, environment |
| Tier 3 Vocabulary | living | | living, dead, habitat, microhabitat, food chain, predator, prey |

Working as Scientists – Disciplinary Knowledge

Scientific enquiry develops across all areas of the science curriculum. Pupils learn to think and work like scientists by observing closely, asking questions, carrying out simple tests, recording their findings and identifying patterns in what they see.

These disciplinary skills develop progressively from EYFS through Key Stage 1 and are applied across all science units so that pupils learn how scientific knowledge is developed through observation, investigation and evidence.

| Working as a Scientist | | | |
|-------------------------------|---|--|---|
| | EYFS | Year 1 | Year 2 |
| Disciplinary knowledge | <ul style="list-style-type: none">• I can observe the natural world and talk about what I notice.• I can sort and group objects based on what I see.• I can ask simple questions about the world around me. | <ul style="list-style-type: none">• I can observe closely using simple equipment.• I can ask simple scientific questions.• I can identify and group things based on what I notice.• I can record what I find using drawings, charts or tables.• I can describe patterns and relationships. | <ul style="list-style-type: none">• I can ask questions and recognise how they can be answered.• I can carry out simple tests and investigations.• I can gather and record data to help answer questions.• I can identify patterns in what I observe.• I can explain what I have found out using scientific vocabulary. |