



Science Skills Progression from Nursery to Year 2

Purpose: Children explore, observe and ask questions about the world around them. This school-designed progression builds from the EYFS Natural World learning in Nursery and Reception to the Year 1 and Year 2 national curriculum for science. Planned teaching develops scientific knowledge and ways of finding out; continuous provision and first-hand experiences give children repeated opportunities to use both.

Our science curriculum in practice

Knowledge with enquiry. Children learn accurate ideas about plants, animals including humans, materials, seasons and habitats. They ask questions and use observation, comparison, simple tests and sources to seek answers. Working scientifically is taught through these topics, rather than as a separate list of activities.

Continuous provision. Nursery and Reception offer rich indoor and outdoor exploration every day: water, materials, planting, natural collections, senses and seasonal change. Year 1 provision is enhanced with current topic vocabulary and practical questions; Year 2 provides focused chances to apply and revisit learning.

The outdoors. Our grounds, garden and woods offer familiar places to return to across the year. Children observe weather, identify plants and animals, study microhabitats and care for living things. Whole-school outdoor learning in spring and summer offers further curriculum-linked investigation alongside everyday outdoor provision.

Careful observation. Adults model precise words, invite children to say what they actually noticed and help them distinguish an observation from a guess. Simple books, photographs and videos extend knowledge where first-hand observation is not possible.

The progression at a glance

Skill	Nursery	Reception	Year 1	Year 2
Living things	Explore plants and small creatures with care; name familiar examples.	Describe visible features of plants and animals and notice growth.	Name and compare common plants and animals; identify plant and human body parts.	Explain basic needs, growth, habitats and simple feeding relationships.
Materials	Handle, sort and describe everyday objects and substances.	Compare materials by visible or felt properties; notice changes.	Name materials, distinguish object from material and group by properties.	Choose materials for uses and investigate how some solid objects change shape.
Weather and seasons	Notice daily weather and changes outdoors.	Observe and talk about seasons and change in the natural world.	Track four seasons, related weather and changes in day length.	Use earlier seasonal observations when considering growth and habitats.
Enquiry	Ask “what” and “why”; explore with senses and adult support.	Observe, compare and say what happened during a simple activity.	Ask questions, observe closely, sort and carry out guided simple tests.	Select simple ways to find out, record results and use evidence to answer.

How to read the tables. The Year 1 and Year 2 statements identify the intended year-group content. Earlier knowledge continues to be revisited, especially outdoors. Enquiry skills develop across both KS1 years and are assessed within the science topics taught.

Scientific knowledge from Nursery to Year 2

Skill	Nursery	Reception	Year 1	Year 2
Plants and trees	Explore leaves, flowers, seeds and growing things; care for a plant with help.	Name visible parts of a plant; observe growth and changes in trees.	Identify common wild and garden plants, deciduous and evergreen trees, and basic parts of flowering plants and trees.	Describe how seeds and bulbs grow into mature plants; investigate water, light and suitable temperature for healthy growth.
Animals and classification	Notice and name familiar animals; describe what they look like and how they move.	Compare animals by visible features and where they are found.	Name fish, amphibians, reptiles, birds and mammals; compare body structures and identify carnivores, herbivores and omnivores.	Compare living, dead and never-alive things; name plants and animals in habitats, including microhabitats.
Habitats and food	Look for minibeasts and their hiding places without harming them.	Notice that different living things are found in different places.	Observe animals in the local environment and describe what they seem to need.	Describe how habitats meet needs, how living things depend on each other and a simple food chain.
Humans and health	Name body parts and explore seeing, hearing, touching, tasting and smelling safely.	Describe body parts, senses and everyday choices that help us care for ourselves.	Name and label basic body parts and say which part is linked to each sense.	Recognise that animals have offspring that grow; explain needs for water, food and air and the value of exercise, varied food and hygiene.
Materials and properties	Explore wood, fabric, metal, water and other safe materials through play.	Use words such as hard, soft, smooth and rough to compare materials.	Distinguish an object from its material; name wood, plastic, glass, metal, water and rock; compare simple properties.	Compare suitability of wood, metal, plastic, glass, brick, rock, paper and cardboard; test squashing, bending, twisting and stretching.
Seasonal change	Notice weather, clothing, leaves and other daily changes.	Describe familiar seasonal signs and changes in the natural world.	Observe four seasons, associated weather and how day length changes.	Revisit seasonal observations when comparing plants, animals and habitats over time.

Local contexts for repeated observation

- Woods and grounds.** Return to the same tree, planting area or microhabitat to notice change over time. Use a hand lens, photograph or annotated drawing to compare observations.
- Garden and growing.** Grow seeds or bulbs, tend plants and compare what happens under different conditions. In Year 2, distinguish what a seed needs to germinate from what the growing plant needs to stay healthy.
- Responsible fieldwork.** Look closely without damaging plants or disturbing animals; return living things carefully. Adults manage hygiene and outdoor risks, and teach children never to look directly at the sun.

Working scientifically across the curriculum

A shared progression across Years 1 and 2 These methods are taught through plants, animals, materials, seasons and habitats. A single topic need not use every method. Adults choose a question and a way of finding out that fit the knowledge being taught.

Skill	Nursery	Reception	Year 1	Year 2
Asking questions	Wonder aloud, ask what something is and notice a surprising change.	Ask a question about an object, living thing or change they can observe.	Ask a simple question and, with support, choose how to find out.	Ask a focused question and recognise that observation, a test or a source may answer different questions.
Observing over time	Notice a change during play or on a return visit.	Describe and draw a plant, weather pattern or material before and after a change.	Observe a familiar plant or season at intervals and compare what changed.	Make a sequence of observations, such as plant growth, and use it to describe a pattern.
Comparing and grouping	Sort by one visible or felt feature and explain a choice with support.	Compare two examples and sort into groups using a clear feature.	Identify and classify plants, animals or materials using observable features.	Choose useful grouping features; explain why an example belongs or does not belong.
Simple tests	Try something, watch the result and say what happened.	Predict informally, try a simple action and compare the outcome.	Carry out a guided test of a material or condition and describe results.	Plan a simple comparison with adult guidance, keep key conditions alike where practical and explain the result.
Equipment and measures	Explore safely with senses and simple tools such as scoops.	Use a hand lens or simple measure with support; handle tools carefully.	Observe closely with hand lenses or simple measuring tools; record a result.	Choose a suitable simple tool or measure, use it carefully and compare results.
Recording and explaining	Describe, draw or photograph what was found.	Make a labelled drawing, mark or oral explanation of what happened.	Use words, drawings, simple tables or tally marks to show observations and suggest an answer.	Record in an appropriate simple form, use evidence to answer and say what remains uncertain.

Examples of purposeful enquiry

- Year 1.** Compare tree leaves to identify examples; track one tree across the seasons; sort objects by their material; test which material keeps a small object dry.
- Year 2.** Observe seed or bulb growth; compare a plant with and without enough water; investigate what lives in two microhabitats; test how different solid objects can be reshaped.
- Talk and sources.** Ask children what they observed, what evidence supports an answer and what a book or photograph can add. Keep the scientific explanation age appropriate and correct.

Continuous provision and assessment

Skill	Nursery	Reception	Year 1	Year 2
Indoor provision	Sensory materials, water, natural objects, planting, mirrors and picture books.	Observation trays, hand lenses, seed growing, water play and sorting collections.	Enhancements linked to taught content: material samples, plant parts, weather records and animal images.	Investigations and comparison stations linked to habitats, growth, health and material uses.
Outdoor provision	Daily weather talk, muddy play, garden exploration and safe minibeast encounters.	Revisit trees and beds, collect fallen items, notice weather and draw living things.	Seasonal walks, local plant and animal identification, and first-hand material testing.	Woods and garden enquiries into microhabitats, plant needs and changes over time.
Adult interaction	Name what is seen and felt; pause for questions and model gentle care.	Ask “What do you notice?” and “What changed?”; introduce accurate words.	Teach content explicitly, model observation and prompt children to give a reason.	Help pupils select evidence, compare results and consider an alternative explanation.
Assessment evidence	Observation of curiosity, language, care and repeated exploration.	Talk, drawings and photographs showing natural-world understanding.	Identification, explanations, observations and simple practical records.	Explanations using taught knowledge, classification, test results and recorded evidence.

Our values in science

- Kindness.** Care for living things, share equipment and listen to another child’s observation.
- Resilience.** Return to a question, observe patiently and try again when a test does not work as expected.
- Creativity.** Ask original questions, suggest ways to investigate and communicate discoveries clearly.

Planning and inclusion checks

- Map each Year 1 and Year 2 science unit to the relevant national curriculum content; teach the necessary names and concepts explicitly, then revisit them through provision and outdoor experience.
- Plan working scientifically within substantive topics. Use questions, observations, grouping, simple tests and records that help children find out about the concept being taught.
- Offer accessible objects, magnifiers, images, tactile examples, oral rehearsal and varied recording methods. Assess scientific understanding without making writing ability the barrier.
- Manage safety and welfare for plants, animals, materials and visits. Observe rather than disturb wildlife; teach handwashing after outdoor enquiry and that looking directly at the sun is unsafe.

Source framework and school references

Department for Education, National curriculum in England: science programmes of study: gov.uk/government/publications/national-curriculum-in-england-science-programmes-of-study

Department for Education, EYFS statutory framework, effective September 2026: gov.uk/government/publications/early-years-foundation-stage-framework--2

Department for Education, Development Matters, Understanding the World: gov.uk/government/publications/development-matters--2

Cecil Gowing, Whole School Curriculum and Provision Map, Nursery to Year 2, and Outdoor Learning Skills Progression (school documents).