

Cavendish CE Primary School

Science Long-Term Plan, National Curriculum Coverage and Progression Map

White Rose Science | Mixed-Age Programme | 2026-2028

We Learn. We Love. We Belong.

Curriculum intent

Science at Cavendish develops curious, knowledgeable and responsible young scientists. Through the adapted White Rose Science sequence, pupils build secure substantive knowledge in biology, chemistry and physics while learning how scientific knowledge is established through observation, pattern seeking, comparative and fair testing, identification and classification, research and the careful use of evidence. The curriculum is organised for our mixed-age classes and secures the complete statutory programme of study across each phase cycle.

Mixed-age organisation

- Robins: Reception, Year 1 and Year 2. Reception pupils access the shared scientific context through Understanding the World and continuous provision; Year 1 and Year 2 pupils work towards their distinct statutory content and working scientifically expectations.
- Wrens: Year 3 and Year 4. Cycle A is based on White Rose Year 3 content and Cycle B on White Rose Year 4 content. Both year groups share the context, with age-appropriate vocabulary, recording, reasoning and independence.
- Owls: Year 5 and Year 6. Cycle A is based on White Rose Year 6 content and Cycle B on White Rose Year 5 content. Teachers deliberately revisit prerequisite knowledge so pupils can enter either point of the rolling programme securely.
- Coverage is judged across the full two-year cycle. Pupils experience both cycles while in each KS2 mixed-age phase. Robins' statutory KS1 entitlement is secured through the Year 1 and Year 2 sequences, with Reception provision alongside.
- The current academic year, 2026/27, follows Cycle B. Cycle A is taught in 2027/28. The original overview names Cycle A as 2025/26; this document rolls that content forward unchanged for 2027/28.

Curriculum delivery and assessment

- Use the complete White Rose Science unit sequence and resources, retaining the intended scientific knowledge and enquiry opportunities while adapting access for mixed ages.
- Apply the Cavendish 5: retrieval; I Do, We Do, You Do; purposeful practice; high-quality questioning; and feedback.
- Teach the relevant working scientifically statements through the substantive unit rather than as a disconnected topic. Every unit should include purposeful practical or evidence-based enquiry.
- Teach scientific vocabulary explicitly and insist on increasingly precise oral and written explanations. Pupils should distinguish observation from inference and evidence from opinion.
- Assessment draws on retrieval, pupil talk, practical work, diagrams, tables and graphs, written conclusions, White Rose checks and end-of-unit outcomes. Assessment should identify whether pupils know the science and can use appropriate enquiry processes.

EYFS foundations in Robins

Reception children are not assessed against the National Curriculum for Science. Their provision develops the foundations needed for Key Stage 1 through Understanding the World, Communication and Language, Physical Development and carefully planned investigation.

- Explore the natural world, making observations and drawing pictures of animals and plants.
- Know similarities and differences between the natural world around them and contrasting environments.
- Understand important processes and changes, including seasons and changing states of matter.
- Use senses and simple equipment safely; notice, describe, compare, sort, ask questions and talk about what happened.
- Develop care for living things and the environment through the school grounds, woodland, planting, growing and stewardship.

Whole-school long-term overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Human body; seasonal changes	Materials; seasonal changes; Planting A	Animals	Animals; caring for planet; seasonal changes; Planting B	Plants; Planting C	Growing and changes
	Animals' needs; humans	Materials; plastic	Plants: light/dark; living things and habitats	Living things and habitats; plants light/dark	Bulbs/seeds; growing up	Bulbs/seeds
	Nutrition and diet; food waste	Plants A	Soils; Plants B; biodiversity	Forces and magnets	Rocks; fossils	Skeletons and
	Grouping/classifying; Data A	States of matter	Sound; Data B	Electricity; energy	Data C; habitats; deforestation	Digestive system
	Living things and habitats	Electricity; renewable energy	Light; light pollution	Circulatory system; diet, drugs and lifestyle	Variation; adaptations	Fossils; then
	Forces; space	Space; global warming	Properties of materials; animals including humans	Animals including humans; life cycles	Reproduction A	Reversible/ plastic pollution

National Curriculum code key: Working Scientifically

Statutory requirement
Ask simple questions and recognise that they can be answered in different ways.
Observe closely, using simple equipment.
Perform simple tests.
Identify and classify.
Use observations and ideas to suggest answers to questions.
Gather and record data to help answer questions.
Ask relevant questions and use different types of scientific enquiry to answer them.
Set up simple practical enquiries, comparative tests and fair tests.
Make systematic and careful observations and, where appropriate, take accurate measurements using standard units and a range of equipment.
Gather, record, classify and present data in a variety of ways to help answer questions.
Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.
Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.
Use results to draw simple conclusions, make predictions, suggest improvements and raise further questions.
Identify differences, similarities or changes related to simple scientific ideas and processes.
Use straightforward scientific evidence to answer questions or support findings.
Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.
Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.
Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.
Use test results to make predictions to set up further comparative and fair tests.
Report and present findings, including conclusions, causal relationships and explanations of reliability, in oral and written forms such as displays and presentations.
Identify scientific evidence that has been used to support or refute ideas or arguments.

National Curriculum code key: substantive knowledge

Statutory requirement
Identify and name common wild and garden plants, including deciduous and evergreen trees.
Identify and describe the basic structure of common flowering plants, including trees.
Identify and name common animals including fish, amphibians, reptiles, birds and mammals.
Identify and name common carnivores, herbivores and omnivores.
Describe and compare the structure of common animals.
Identify, name, draw and label basic parts of the human body and say which body part is associated with each sense.
Distinguish between an object and the material from which it is made.
Identify and name everyday materials.
Describe simple physical properties of everyday materials.
Compare and group everyday materials on the basis of their simple physical properties.
Observe changes across the four seasons.
Observe and describe weather associated with the seasons and how day length varies.
Explore and compare differences between things that are living, dead and never alive.
Identify that most living things live in suitable habitats and describe how habitats meet basic needs.
Identify and name plants and animals in habitats, including microhabitats.
Describe how animals obtain food from plants and other animals using simple food chains.
Observe and describe how seeds and bulbs grow into mature plants.
Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.
Notice that animals, including humans, have offspring which grow into adults.
Find out about and describe basic needs of animals, including humans, for survival.
Describe the importance for humans of exercise, eating the right amounts of different foods and hygiene.
Identify and compare suitability of everyday materials for particular uses.
Find out how shapes of solid objects made from some materials can be changed.
Identify and describe functions of different parts of flowering plants.

	Statutory requirement
	Explore requirements of plants for life and growth and how these vary.
	Investigate how water is transported within plants.
	Explore the part flowers play in the life cycle of flowering plants.
	Identify that animals need the right types and amount of nutrition and cannot make their own food.
	Identify that humans and some animals have skeletons and muscles for support, protection and movement.
	Compare and group rocks by appearance and simple physical properties.
	Describe in simple terms how fossils are formed.
	Recognise that soils are made from rocks and organic matter.
	Compare how things move on different surfaces.
	Notice that some forces need contact but magnetic forces act at a distance.
	Observe how magnets attract or repel and attract some materials.
	Compare and group materials according to whether they are attracted to a magnet; identify magnetic materials.
	Describe magnets as having two poles.
	Predict whether two magnets will attract or repel.
	Recognise that light is needed to see and darkness is absence of light.
	Notice that light is reflected from surfaces.
	Recognise that light from the sun can be dangerous and eyes need protection.
	Recognise that shadows form when an opaque object blocks light.
	Find patterns in the way shadow size changes.
	Recognise that living things can be grouped in a variety of ways.
	Explore and use classification keys.
	Recognise that environments can change and pose dangers to living things.
	Describe simple functions of the basic parts of the digestive system.
	Identify different types of teeth and their simple functions.
	Construct and interpret food chains, identifying producers, predators and prey.
	Compare and group materials as solids, liquids or gases.
	Observe that some materials change state when heated or cooled and measure/research temperatures.
	Identify the part played by evaporation and condensation in the water cycle and associate evaporation rate with temperature.
	Identify how sounds are made, associating some with vibration.
	Recognise vibrations travel through a medium to the ear.
	Find patterns between pitch and features of the object producing sound.
	Find patterns between volume and strength of vibrations.
	Recognise sounds get fainter as distance increases.
	Identify common appliances that run on electricity.
	Construct a simple series circuit and identify components.
	Identify whether a lamp will light in a simple series circuit.
	Recognise a switch opens and closes a circuit.
	Recognise common conductors and insulators and associate metals with conductivity.
	Describe differences in life cycles of a mammal, amphibian, insect and bird.
	Describe the life process of reproduction in some plants and animals.
	Describe changes as humans develop to old age.
	Compare and group everyday materials by properties.
	Know some materials dissolve to form a solution and describe recovery from solution.
	Use knowledge of solids, liquids and gases to decide how mixtures might be separated.
	Give reasons for uses of everyday materials based on evidence from comparative and fair tests.
	Demonstrate dissolving, mixing and changes of state are reversible changes.
	Explain that some changes result in new materials and are not usually reversible.
	Explain unsupported objects fall towards Earth because of gravity.
	Identify effects of air resistance, water resistance and friction.
	Recognise mechanisms allow a smaller force to have a greater effect.
	Describe movement of Earth and other planets relative to the sun.
	Describe movement of the moon relative to Earth.

	Statutory requirement
	Describe sun, Earth and moon as approximately spherical.
	Use Earth's rotation to explain day/night and apparent movement of the sun.
	Describe how living things are classified into broad groups according to observable characteristics, including microorganisms, plants and animals.
	Give reasons for classifying plants and animals based on specific characteristics.
	Identify and name main parts of the human circulatory system and describe functions of heart, blood vessels and blood.
	Recognise impact of diet, exercise, drugs and lifestyle on how bodies function.
	Describe ways nutrients and water are transported within animals, including humans.
	Recognise living things have changed over time and fossils provide information about past life.
	Recognise offspring vary and are not identical to parents.
	Identify how animals and plants are adapted to suit environments and adaptation may lead to evolution.
	Recognise light appears to travel in straight lines.
	Use straight-line travel of light to explain seeing objects.
	Explain why shadows have the same shape as objects casting them.
	Associate brightness/volume of components with number and voltage of cells.
	Compare and give reasons for variations in how components function.
	Use recognised symbols when representing a simple circuit in a diagram.

Detailed mixed-age curriculum map

Term	White Rose unit(s)	NC links	Core knowledge	Mixed-age progression	Assessment
Autumn 1	Human body (5 weeks); Seasonal changes (1 week)	Y1-B6; Y1-P1-2; KS1-WS1-2,5-6	Body parts, senses, observation and seasonal evidence.	R: name visible body parts and use senses. Y1: label body/senses accurately. Y2: retrieve health and survival links.	Labeled body diagrams; seasonal record.
Autumn 2	Materials (5); Seasonal changes (1); Planting A (1)	Y1-C1-4; Y1-P1-2; Y1-B1-2; KS1-WS1-6	Objects/materials, properties, sorting and first planting observations.	R: explore and describe. Y1: name, compare and classify. Y2: justify suitability using prior knowledge.	Material sort/tables; data.
Spring 1	Animals (5)	Y1-B3-5; KS1-WS1-6	Animal groups, diets and structures.	R: name familiar animals. Y1: classify and compare. Y2: connect animals to habitat and food needs.	Classification charts; description.
Spring 2	Animals (1); Caring for planet (2); Seasonal changes (1); Planting B (1)	Y1-B3-5; Y1-P1-2; Y2-B2-3; KS1-WS	Consolidation, environmental care, habitats and plant change.	R: care for living things. Y1: notice seasonal/environmental change. Y2: explain habitat needs.	Stewardship action plan; record.
Summer 1	Plants (5); Planting C (1)	Y1-B1-2; KS1-WS1-6	Common plants/trees and basic structures.	R: observe and draw. Y1: identify/name and label structures. Y2: explain growth needs from prior learning.	Plant hunt; labeled evidence.
Summer 2	Growing and cooking (3); Seasonal changes (1)	Y1-B1-2; Y1-P1-2; Y2-B5-6,9; KS1-WS	Plant-to-food links, healthy choices and annual seasonal review.	R: describe change. Y1: sequence growth. Y2: link conditions to growth and healthy eating.	Growth sequences; seasonal comparison.
Autumn 1	Animals' needs for survival (4); Humans (2)	Y2-B7-9; KS1-WS1-6	Survival needs, offspring/growth, exercise, food and hygiene.	R: talk about needs and growth. Y1: retrieve body/animal knowledge. Y2: explain statutory concepts.	Needs investigation; explanation.
Autumn 2	Materials (5); Plastic (1)	Y2-C1-2; KS1-WS1-6	Suitability, properties, changing shapes and responsible material use.	R: sensory exploration. Y1: name/properties. Y2: test suitability and reversible shape change.	Comparative material evaluation.
Spring 1	Plants: light and dark (3); Living things and habitats (3)	Y2-B1-3,5-6; KS1-WS	Plant growth conditions; living/dead/never alive; habitat suitability.	R: observe. Y1: identify plants/animals. Y2: plan comparison and explain needs/habitats.	Light/dark investigation; map/classification.
Spring 2	Living things and habitats (4); Plants light/dark (1)	Y2-B1-4,6; KS1-WS	Microhabitats, food chains and conclusions from plant enquiry.	R: explore small-world habitats. Y1: name organisms. Y2: construct food chains and conclude from evidence.	Microhabitat survey; conclusion.
Summer 1	Bulbs and seeds (2); Growing up (4)	Y2-B5,7; KS1-WS	Plant life cycles and animal/human growth.	R: sequence familiar change. Y1: identify plant structures. Y2: compare life stages and explain maturation.	Growth diary; life cycle.
Summer 2	Bulbs/seeds (1); Growing up (1); Wildlife (2)	Y2-B2-5,7; KS1-WS	Consolidation through local wildlife and school-ground study.	R: observe/care. Y1: identify. Y2: explain habitat, food and life-cycle links.	Wildlife survey; habitat.
Autumn 1	Nutrition and diet; sustainability/food waste	Y3-B5; LKS2-WS	Nutrients, balanced diets and evidence-informed food choices. Sustainability is applied context.	Y3: identify nutritional needs. Y4: apply digestion/food-chain knowledge where appropriate.	Food-group analysis; reasoned action.
Autumn 2	Plants A (6)	Y3-B1-4; LKS2-WS	Plant structures, growth requirements, transport and reproduction.	Y3: secure statutory knowledge. Y4: increase precision, variables and explanation.	Plant investigation; explanation.
Spring 1	Soils (3); Plants B (2); biodiversity	Y3-C3; Y3-B1-4; Y4-B1-3; LKS2-WS	Soil composition, plant consolidation and biodiversity application.	Y3: describe soils/plants. Y4: classify and evaluate environmental change.	Soil comparison; biodiversity.
Spring 2	Forces (2); Magnets (2)	Y3-P1-6; LKS2-WS	Contact/non-contact forces, friction, magnetic materials and poles.	Y3: observe, compare and predict. Y4: design fairer tests and present patterns.	Surface/friction experiments; predictions.
Summer 1	Rocks (3); Fossils (2)	Y3-C1-2; LKS2-WS	Rock properties and fossil formation.	Y3: compare/classify and explain formation. Y4: use keys, evidence and more precise justification.	Rock key; permission; explanation.
Summer 2	Skeletons and movement (4); Light (5)	Y3-B6; Y3-P7-11; LKS2-WS	Skeletons/muscles, seeing, reflection, sun safety and shadows.	Y3: secure concepts. Y4: control variables and graph shadow patterns.	Skeleton model; explanation.
Autumn 1	Group and classify living things (3); Data collection A (1)	Y4-B1-2; LKS2-WS4-9	Grouping, classification keys and systematic data collection.	Y3: use observable features. Y4: create/use branching keys and justify groupings.	Classification key; data.
Autumn 2	States of matter (2+5)	Y4-C1-3; LKS2-WS	Solids, liquids, gases, state change and water cycle.	Y3: describe observations. Y4: use particle ideas, temperatures and causal explanation.	State-change experiments; explanation/data.
Spring 1	Sound (5); Data collection B (1)	Y4-P1-5; LKS2-WS	Vibration, medium, pitch, volume and distance.	Y3: notice and describe patterns. Y4: explain patterns scientifically and collect reliable data.	Instrument enquiry; conclusion.
Spring 2	Electricity (4); Energy (1)	Y4-P6-10; LKS2-WS	Series circuits, switches, conductors and insulators; energy context.	Y3: build safely and describe. Y4: predict/explain circuit outcomes and represent clearly.	Working circuit diagram.
Summer 1	Data C (2); Habitats (2); Deforestation (1)	Y4-B1-3; LKS2-WS	Fieldwork data, habitats, classification and environmental change.	Y3: gather/record. Y4: analyse, classify and explain threats using evidence.	Habitat survey; response.
Summer 2	Digestive system (1+4); Food chains (2)	Y4-B4-6; LKS2-WS	Digestive organs, teeth and producer-predator-prey relationships.	Y3: identify main ideas. Y4: explain functions and construct/interpret food chains.	Digestive model; analysis.
Autumn 1	Living things and their habitats (6)	Y6-B1-2; UKS2-WS	Classification including microorganisms and reasoned use of characteristics.	Y5: apply prior life-cycle/grouping knowledge. Y6: justify classification with precise criteria.	Complex key; map; justification.
Autumn 2	Electricity (5); renewable energy (1)	Y6-P4-6; UKS2-WS	Voltage/component effects, circuit symbols and systematic investigation. Renewable energy is applied context.	Y5: secure series-circuit foundations. Y6: vary components/cells and explain results.	Circuit investigation; diagram; energy.
Spring 1	Light (5); light pollution (1)	Y6-P1-3; UKS2-WS	Straight-line model of light, seeing, shadows and environmental application.	Y5: retrieve reflection/shadow knowledge. Y6: use ray models and causal explanations.	Ray diagrams; shadow; evidence response.
Spring 2	Circulatory system (3); diet, drugs and lifestyle (3)	Y6-B3-5; UKS2-WS	Heart, blood vessels, blood, transport and lifestyle effects.	Y5: connect to development/health. Y6: explain interacting systems using evidence.	Circulatory model; based health explanation.
Summer 1	Variation (2); adaptations (4)	Y6-B7-8; UKS2-WS	Inheritance, variation, adaptation and evolution over time.	Y5: compare life cycles/reproduction. Y6: explain variation and adaptation with evidence.	Variation data; adaptation.
Summer 2	Fossils (2); themed projects (4)	Y6-B6-8; UKS2-WS1-6	Fossil evidence for change over time; independent application of enquiry.	Y5: retrieve properties/changes/life cycles. Y6: synthesise evidence and plan independently.	Fossil evidence; project.
Autumn 1	Forces (5); Space (1)	Y5-P1-3; Y5-P4-7 intro; UKS2-WS	Gravity, resistance, friction and mechanisms; introduction to space.	Y5: secure statutory concepts. Y6: control variables, repeat readings and evaluate reliability.	Force investigation; initial space model.
Autumn 2	Space (4); global warming (1)	Y5-P4-7; UKS2-WS	Solar system, moon, spherical bodies and Earth rotation; climate application.	Y5: explain with models. Y6: critique models and use evidence precisely.	Scaled/modelled; explanation; evidence.
Spring 1	Properties of materials (4); animals including humans (2)	Y5-C1-4; Y5-B3; UKS2-WS	Material properties, dissolving/separation and introduction to human development.	Y5: test, group and justify. Y6: improve method, precision and reliability.	Material investigation; development timeline.

Term	White Rose unit(s)	NC links	Core knowledge	Mixed-age progression	Assessment
Spring 2	Animals including humans (3); life cycles (3)	Y5-B1,3; UKS2-WS	Human development and comparative animal life cycles.	Y5: describe and compare. Y6: research critically and communicate precise patterns.	Comparative life cycles.
Summer 1	Reproduction A (3)	Y5-B2; UKS2-WS	Sexual/asexual reproduction in plants and some animals.	Y5: describe processes. Y6: connect reproduction to variation and adaptation.	Plant reproduction and variation.
Summer 2	Reversible/irreversible changes (4); plastic pollution (1); Reproduction B (2)	Y5-C2-6; Y5-B2; UKS2-WS	Solutions, separation, reversible and irreversible change; reproduction consolidation and environmental application.	Y5: secure statutory changes. Y6: evaluate evidence, reliability and environmental implications.	Separation changes and plastic evidence assessment.

Exact statutory coverage audit

Study	Codes	Where secured	Judgement / action
	Y1-B1-2	Robins Cycle A: Planting A-C, Plants, Growing and cooking	Covered
including humans	Y1-B3-6	Robins Cycle A: Human body and Animals	Covered
materials	Y1-C1-4	Robins Cycle A: Materials	Covered
changes	Y1-P1-2	Robins Cycle A: recurring seasonal observations	Covered across year
gs and habitats	Y2-B1-4	Robins Cycle B: Living things/habitats and Wildlife	Covered
	Y2-B5-6	Robins Cycle B: light/dark, bulbs and seeds	Covered
cluding humans	Y2-B7-9	Robins Cycle B: survival, humans and growing up	Covered
ryday materials	Y2-C1-2	Robins Cycle B: Materials and Plastic	Covered
	Y3-B1-4	Wrens Cycle A: Plants A/B	Covered
cluding humans	Y3-B5-6	Wrens Cycle A: Nutrition; Skeletons/movement	Covered
	Y3-C1-3	Wrens Cycle A: Soils, Rocks, Fossils	Covered
magnets	Y3-P1-6	Wrens Cycle A: Forces and Magnets	Covered
	Y3-P7-11	Wrens Cycle A: Light	Covered
gs and habitats	Y4-B1-3	Wrens Cycle B: Group/classify; Habitats; Deforestation	Covered
cluding humans	Y4-B4-6	Wrens Cycle B: Digestive system; Food chains	Covered
matter	Y4-C1-3	Wrens Cycle B: States of matter	Covered
	Y4-P1-5	Wrens Cycle B: Sound	Covered
	Y4-P6-10	Wrens Cycle B: Electricity	Covered
gs and habitats	Y5-B1-2	Owls Cycle B: Life cycles and Reproduction A/B	Covered
cluding humans	Y5-B3	Owls Cycle B: Animals including humans	Covered
and changes of materials	Y5-C1-6	Owls Cycle B: Properties; reversible/irreversible changes	Covered
space	Y5-P4-7	Owls Cycle B: Space	Covered
	Y5-P1-3	Owls Cycle B: Forces	Covered
gs and habitats	Y6-B1-2	Owls Cycle A: Living things and habitats	Covered
cluding humans	Y6-B3-5	Owls Cycle A: Circulatory system; diet/drugs/lifestyle	Covered
and inheritance	Y6-B6-8	Owls Cycle A: Fossils, variation and adaptations	Covered
	Y6-P1-3	Owls Cycle A: Light	Covered
	Y6-P4-6	Owls Cycle A: Electricity	Covered
cally KS1	KS1-WS1-6	Embedded in every Robins unit and seasonal/plant/wildlife observations	Must be evidenced across un
cally LKS2	LKS2-WS1-9	Embedded in every Wrens unit; Data A-C provide deliberate reinforcement	Must be evidenced across un
cally UKS2	UKS2-WS1-6	Embedded in every Owls unit; themed project provides independent synthesis	Must be evidenced across un

Coverage judgement and essential safeguards

- The adapted sequence provides full statutory content coverage from Year 1 to Year 6 across the relevant cycle. No statutory content unit is missing.
- Enrichment units - sustainability, food waste, biodiversity, energy, renewable energy, global warming, light pollution, deforestation and plastic pollution - strengthen application but do not replace statutory science. Teachers must retain the linked statutory knowledge and enquiry shown in this map.
- Working scientifically coverage cannot be secured by unit titles alone. Medium-term plans and books/floor books must show questions, methods, observations or measurements, data, conclusions and age-appropriate evaluation.
- Year 4 teeth must be taught explicitly within the digestive system sequence. Year 5 mechanisms (levers, pulleys and gears) must be explicit within Forces. Year 5 separation methods must include filtering, sieving and evaporating. Year 6 circuit diagrams must use recognised symbols.
- Seasonal changes in Cycle A should be revisited across the year, not taught as four isolated lessons. Records should allow pupils to compare weather, daylight, plants and the local environment over time.
- In Robins, Reception experiences are planned from EYFS expectations; Reception children are not expected to complete Year 1/2 written outcomes. Shared contexts should lead to distinct assessment expectations for Reception, Year 1 and Year 2.

Progression through scientific enquiry

EYFS	KS1	Lower KS2	Upper KS2
Explore, notice and ask simple questions with adult support.	Ask simple questions and recognise different ways to answer them.	Ask relevant questions and select from fair/comparative tests, observation over time, pattern seeking, classification and research.	Plan enquiry types independently, consider reliability.
Use senses and simple tools safely; describe change.	Observe closely and use simple equipment; gather basic data.	Make systematic observations and increasingly accurate standard measurements.	Choose equipment; measure accurately; readings where appropriate.
Talk, draw, photograph, sort and sequence.	Use simple tables, charts, labelled drawings and tally records.	Use labelled diagrams, keys, tables, bar charts and clear scientific language.	Use complex tables, classifications and precise diagrams.
Say what happened and notice similarities/differences.	Use observations to suggest answers and simple patterns.	Draw simple conclusions, use evidence, predict, suggest improvements and raise questions.	Explain causal relationships, evaluate tests and distinguish evidence.
Use everyday and emerging scientific vocabulary in talk.	Explain observations in complete sentences using taught vocabulary.	Report findings orally and in writing with increasingly precise terminology.	Present reasoned arguments, question and communicate for different audiences.

Teacher planning prompt

Use the relevant White Rose Science unit and this Cavendish map to create a mixed-age sequence. Preserve the White Rose knowledge progression and practical enquiries. Identify the exact National Curriculum codes for the unit; the prerequisite knowledge to retrieve; the key scientific vocabulary; and the working scientifically focus. Plan explicit I Do, We Do, You Do modelling, purposeful practical work and a clear assessment outcome. For Robins, specify separate Reception, Year 1 and Year 2 expectations. For Wrens and Owls, state how the older year group will demonstrate greater precision, independence, control of variables, quality of recording, evidence use and evaluation. Do not allow an environmental enrichment theme to displace the statutory science it applies.

Subject leadership and monitoring

- Check that the taught cycle matches this overview and that pupils joining mid-cycle receive necessary prerequisite teaching.
- Sample planning and books/floor books for substantive knowledge and working scientifically evidence, including conclusions and age-appropriate evaluation.
- Use pupil voice to test whether pupils remember prior learning, use scientific vocabulary and understand how evidence supports conclusions.
- Monitor practical-resource access, safety and inclusion so SEND pupils participate meaningfully without reducing the intended scientific knowledge.
- Review coverage annually, particularly split units and enrichment weeks, and update this document if the White Rose sequence or class structure changes.

Sources and document control

- Department for Education: National curriculum in England - science programmes of study for Key Stages 1 and 2.
- Department for Education: Statutory framework for the Early Years Foundation Stage.
- White Rose Science unit sequence and resources, adapted by Cavendish CE Primary School for mixed-age teaching.
- Cavendish source document: Science long-term plan, Cycle A and Cycle B overview supplied July 2026.
- Review date: July 2027 | Subject lead: Science Lead | Current teaching cycle: Cycle B 2026/27.