

Science

Extended Curriculum Overview 2026-27

At Cleaswell Hill, chronological age determines the Science experiences pupils encounter. Individual starting points determine the level of cognitive demand, communication, abstraction, support, practical independence and assessment through which pupils access those experiences. Science is taught as a distinct core subject across biology, chemistry and physics, with purposeful practical work and working scientifically embedded within substantive content. This enables Extended Pathway pupils to encounter an ambitious, age-respectful curriculum while barriers are removed through carefully adapted teaching and specialist support.

Intent

Our Science curriculum is ambitious, coherent, practical and age-respectful. Pupils build connected substantive knowledge about the natural and material world alongside disciplinary knowledge of how scientific knowledge is established through enquiry, evidence, measurement, modelling and explanation. The curriculum develops curiosity, precise scientific language, critical thinking, safe practical competence and the confidence to use science to understand everyday life and the wider world.

All pupils encounter a broad range of biology, chemistry and physics. Adaptation removes barriers without reducing ambition or subject identity. Pupils are supported to move from direct experience and concrete phenomena towards increasingly abstract models, explanations and applications from their individual starting points.

Implementation

The 2026-27 age-related sequence sets out the scientific experiences taught from Key Stage 1 through Key Stage 3, followed by appropriate Entry Level or GCSE routes. Teachers identify prerequisite knowledge, revisit the most important ideas through planned retrieval and explicitly teach scientific vocabulary. Concrete and practical experiences, visual and pictorial representations and increasingly abstract scientific models are used to secure understanding.

Working scientifically is taught explicitly within the most appropriate biology, chemistry and physics contexts rather than as a disconnected set of generic skills. Practical work is frequent, varied and purposeful: pupils know what they are learning from an activity, use suitable apparatus safely and are taught how to observe, measure, record, analyse, interpret and evaluate. Communication approaches, visual supports and specialist adaptations enable pupils to participate with increasing independence while maintaining a balanced and proportionate approach to risk.

Impact

Pupils know more, remember more and can explain more from their individual starting points. They use increasingly precise scientific vocabulary, connect new learning to prior knowledge, handle equipment more safely and independently, ask better questions, select appropriate approaches to enquiry, measure and record with greater accuracy, interpret evidence and justify conclusions. Progress is evidenced through curriculum and working scientifically statements, practical and recorded work, discussion, observation and, where appropriate, Entry Level and GCSE outcomes. Pupils increasingly apply science to health, the environment, technology, careers and Preparation for Adulthood.

What pupils learn

The curriculum deliberately connects substantive knowledge - what pupils know about the products of science - with disciplinary knowledge - what pupils know about how science establishes and tests knowledge. This keeps practical work and working scientifically focused on clear scientific learning rather than activity completion.

Substantive knowledge - what pupils know	Disciplinary knowledge - how pupils work scientifically
Biology: living things, plants, humans, health, habitats and ecosystems, cells, reproduction, genetics, inheritance and evolution.	Questions and methods: asking scientific questions; observing over time; pattern seeking; identifying and classifying; comparative and fair testing; research and modelling.
Chemistry: everyday materials and their properties, states of matter and particles, rocks and Earth materials, atoms, elements and compounds, reactions, the Periodic Table, resources and climate.	Apparatus and measurement: selecting and using equipment and techniques safely; making observations and measurements with increasing accuracy, precision and independence.
Physics: forces and motion, light, sound and waves, electricity and magnetism, energy, matter, Earth and space.	Data analysis: gathering, recording, classifying and presenting data; using tables, diagrams and graphs; identifying patterns; applying mathematics and calculating results.
Science in society: health, sustainability, biodiversity, technology, scientific developments, careers and the contribution of science to everyday life and global challenges.	Evidence and explanation: predicting, drawing conclusions, using evidence to support or refute ideas, evaluating reliability and error, improving methods and understanding that scientific models and explanations develop with new evidence.

Age-related curriculum experiences: 2026-27 science sequence

The 2026-27 sequence sets the experiences pupils encounter by chronological stage. Within each theme, pupils work at the appropriate point on the cognitive progression below, so the scientific context remains age-respectful while knowledge, disciplinary thinking and practical independence are built from individual starting points.

Stage 1 - Themes and experiences aligned with Key Stage 1			
Term	First half	Second half	Working scientifically emphasis
Autumn	Animals including Humans	Everyday Materials	Observe closely; identify and classify; use simple equipment; perform simple tests and record observations.
Spring	Seasonal Changes	Living Things and their Habitats	Observe change over time; ask simple questions; compare, sort and classify; use observations to suggest answers.
Summer	Plants	Uses of Everyday Materials	Observe growth; compare properties and suitability; carry out simple tests; gather and record data.

Stage 2 - Themes and experiences aligned with Lower Key Stage 2			
Term	First half	Second half	Working scientifically emphasis
Autumn	Animals including Humans	Rocks / States of Matter	Ask relevant questions; make systematic observations; classify; measure using standard units; record findings.
Spring	Sound	Forces and Magnets	Set up simple enquiries and comparative/fair tests; identify patterns and relationships; use evidence to answer questions.
Summer	Light	Electricity	Gather and present data; report findings; draw simple conclusions; make predictions and suggest improvements.

Stage 3 - Themes and experiences aligned with Upper Key Stage 2

Term	First half	Second half	Working scientifically emphasis
Autumn	Animals including Humans / Evolution and Inheritance	Properties and Changes of Materials	Plan enquiries; recognise and control variables; measure with increasing accuracy and precision; use repeat readings when appropriate.
Spring	Earth and Space / Light	Living Things and their Habitats	Use classification keys, models and secondary sources; record increasingly complex data; identify evidence that supports or refutes ideas.
Summer	Forces	Electricity	Use test results to make predictions; explain causal relationships; present conclusions and comment on the degree of trust in results.

Stage 4 - Themes and experiences aligned with Key Stage 3

Term	Years 7/8	Years 8/9	Working scientifically emphasis
Autumn	Movement / Particle Model	Breathing / Periodic Table	Develop lines of enquiry; select appropriate investigations; use SI units and apparatus safely; make predictions from scientific knowledge.
Spring	Sound / Interdependence	Wave Effects / Respiration	Identify variables; make and record measurements; present data in tables and graphs; interpret patterns and draw conclusions.
Summer	Metals and Non-metals / Earth Structure	Chemical Energy / Climate	Apply calculations; evaluate methods and reliability; consider random and systematic error; explain evidence and identify further questions.

Stage 5 - Key Stage 4 qualification pathways

Term	ELC Science	GCSE Year 1	GCSE Year 2
Autumn	Component 1: The Human Body Component 3: Elements, Mixtures and Compounds	Cell Biology	Organisation
Spring	Component 5: Energy, Force and the Structure of Matter Component 2: Environment, Evolution and Inheritance	Infection and Response	Bioenergetics / Ecology
Summer	Component 4: Chemistry in our World Component 6: Electricity, Magnetism and Waves	Homeostasis	Inheritance, Variation and Evolution

Cognitive progression: building scientific knowledge and disciplinary thinking from individual starting points

Progression is not tied to chronological age or a fixed pathway. It shows how disciplinary knowledge builds from a pupil's individual starting point while remaining anchored in specific substantive science. Pupils may be at different points in different aspects of science, and teaching moves learning forward through more precise vocabulary, reduced prompting, greater accuracy, stronger reasoning and increased independence.

Scientific enquiry and methods - Progression moves from supported exploration towards selecting and planning increasingly appropriate enquiries.						
Skill thread	Explore & notice	Choose & describe	Investigate & record	Plan, explain & evaluate	Justify, apply & generalise	Assessment Framework anchor(s)
Asking questions	Attend and respond to changes, objects or events; show curiosity through gaze, gesture, symbol or action.	Ask or respond to simple what/where questions about familiar phenomena.	Ask relevant questions linked to prior knowledge and choose a way to find out with support.	Form questions that can be investigated; select a suitable enquiry type and explain the purpose.	Develop a line of enquiry from observations and prior knowledge; refine questions in response to evidence.	Prerequisite: responds to suggestions about how to find things out. KS1: WS1. LKS2: WS1. UKS2: WS1.
Choosing enquiry types	Repeat an action to notice what happens.	Take part in a simple test, sorting activity or observation over time.	Choose between simple tests, observation, classification, pattern seeking or research with support.	Select and plan the most appropriate enquiry, including comparative and fair tests where needed.	Justify the method selected; combine fieldwork, laboratory work, sampling, research or modelling appropriately.	Prerequisite: repeats actions to test a result. KS1: WS3-WS4. LKS2: WS1-WS2. UKS2: WS1. KS3: selects, plans and carries out appropriate enquiries.
Predict & hypothesise	Anticipate a familiar effect or outcome.	Make a simple prediction using an experience or observable clue.	Make a prediction linked to prior scientific knowledge.	Use scientific knowledge to make a testable prediction and explain the reasoning.	Develop and refine hypotheses; use models and theory to predict outcomes in less familiar contexts.	Prerequisite: makes a prediction in a new experiment. KS1: WS5. LKS2: WS7. UKS2: WS4. KS3: makes predictions using scientific knowledge and understanding.
Variables & fair tests	Notice that changing an action can change an outcome.	Choose one thing to change or compare in a familiar test.	Recognise when a simple comparative or fair test is needed and identify what should change or stay the same.	Identify independent, dependent and control variables and explain why controls are needed.	Control relevant variables systematically; recognise limitations and when strict control is not possible or appropriate.	Prerequisite: identifies variables that could be changed. LKS2: WS2. UKS2: WS1. KS3: identifies independent, dependent and control variables where appropriate.

Apparatus, observation and measurement - Progression moves from sensory exploration towards accurate, safe and increasingly independent practical technique.

Skill thread	Explore & notice	Choose & describe	Investigate & record	Plan, explain & evaluate	Justify, apply & generalise	Assessment Framework anchor(s)
Observing & identifying	Explore objects, materials and living things through the senses and supported attention.	Name or match simple properties and notice obvious similarities, differences or changes.	Make systematic observations and identify/classify using taught scientific criteria.	Select what to observe, how often and for how long; distinguish relevant from irrelevant observations.	Use increasingly precise observations to identify subtle patterns and connect observations to models or explanations.	Prerequisite: names single properties; explores plants/animals/materials. KS1: WS2, WS4. LKS2: WS3, WS8. KS3: makes and records observations using a range of methods.
Using apparatus & techniques	Experience simple equipment through supported safe use.	Choose and use familiar equipment such as a magnifier, magnet, circuit component or timer.	Use a growing range of equipment and taught procedures with support as needed.	Select suitable apparatus and techniques and use them with increasing independence, control and accuracy.	Select and use laboratory or field techniques purposefully; adapt technique when the method or context changes.	Prerequisite: uses magnifying glass, magnets, electricity and stopwatch. KS1: WS2-WS3. LKS2: WS3. UKS2: WS2. KS3: uses appropriate techniques, apparatus and materials.
Measurement & units	Experience comparison such as more/less, heavier/lighter, faster/slower.	Use simple measuring equipment and compare results.	Take measurements in standard units using suitable equipment.	Measure with increasing accuracy and precision and take repeat readings when appropriate.	Use SI units confidently, derive/use simple equations and select precision appropriate to the measurement.	Prerequisite: collects data using measuring equipment. KS1: simple measurement. LKS2: WS3. UKS2: WS2. KS3: SI units, equations and appropriate calculations.
Recording observations	Show or communicate the result of an action.	Record a simple result using objects, symbols, pictures, marks or a tally.	Record findings using scientific language, drawings, labelled diagrams, tables or simple charts.	Record increasingly complex observations and measurements using appropriate scientific conventions.	Produce precise records that enable comparison, analysis and replication; use digital tools where appropriate.	Prerequisite: records data in tally charts/tables. KS1: WS6. LKS2: WS4-WS5. UKS2: WS3. KS3: presents observations and data using appropriate methods.

Apparatus, observation and measurement - Progression moves from sensory exploration towards accurate, safe and increasingly independent practical technique.

Skill thread	Explore & notice	Choose & describe	Investigate & record	Plan, explain & evaluate	Justify, apply & generalise	Assessment Framework anchor(s)
Safe working & risk	Follow a familiar safety cue or supported routine.	Use familiar equipment within clear safety boundaries and ask for help when needed.	Follow taught safety procedures and recognise simple hazards.	Identify hazards, evaluate basic risks and apply suitable controls with increasing independence.	Evaluate risk proportionately; select controls that enable, rather than unnecessarily restrict, purposeful practical science.	Prerequisite: supported safe use of equipment. KS1/KS2: safe practical procedures embedded in units. KS3: can evaluate risks; uses apparatus paying attention to health and safety.

Data analysis - Progression moves from noticing differences towards representing, analysing and interpreting increasingly complex data.

Skill thread	Explore & notice	Choose & describe	Investigate & record	Plan, explain & evaluate	Justify, apply & generalise	Assessment Framework anchor(s)
Classify & present data	Match, sort or group objects and results using a familiar feature.	Sort by a simple scientific criterion and record using objects, symbols, pictures or tallies.	Gather, classify and present data in tables, keys, diagrams and simple charts.	Choose an appropriate representation, including classification keys, bar charts, line graphs or scatter graphs.	Select and justify representations that make relationships clear; use appropriate digital or statistical tools.	Prerequisite: sorts by size/type/habitat; tally chart/table. KS1: WS4, WS6. LKS2: WS4-WS5. UKS2: WS3. KS3: presents data using tables and graphs.
Patterns & links	Notice that two outcomes are the same or different.	Compare results using language such as more/less, faster/slower or wet/dry.	Identify simple patterns, changes, similarities and differences in observations or data.	Identify relationships and causal patterns, using repeated observations or results to support thinking.	Interpret patterns critically; distinguish correlation from a supported causal explanation where appropriate.	Prerequisite: compares/contrasts results. KS1: WS5. LKS2: WS8. UKS2: WS5. KS3: interprets observations and data, identifying patterns.
Graphs & calculations	Experience counting, ordering and simple comparison within practical contexts.	Use simple numbers and measures to describe a result.	Use standard units, simple tables and graphs to compare results.	Use increasingly complex graphs, calculate results and apply relevant mathematical concepts.	Select equations, units and statistical techniques appropriate to the question and interpret the numerical result scientifically.	LKS2: WS3-WS5. UKS2: WS2-WS3. KS3: applies mathematical concepts; derives simple equations; undertakes basic data analysis.

Data analysis - Progression moves from noticing differences towards representing, analysing and interpreting increasingly complex data.

Skill thread	Explore & notice	Choose & describe	Investigate & record	Plan, explain & evaluate	Justify, apply & generalise	Assessment Framework anchor(s)
Conclusions & questions	Communicate what happened after an action.	Use an observation to answer a simple question.	Draw a simple conclusion from results and raise a further question with support.	Use evidence to explain conclusions, make predictions for new values and identify when further tests are needed.	Draw reasoned conclusions with appropriate caution; identify limitations, alternative explanations and productive next questions.	KS1: WS5. LKS2: WS6-WS7, WS9. UKS2: WS4-WS6. KS3: draws conclusions and identifies further questions.

Evidence, explanation and scientific thinking - Progression moves from describing what happened towards reasoned explanation, evaluation and understanding how scientific knowledge develops.

Skill thread	Explore & notice	Choose & describe	Investigate & record	Plan, explain & evaluate	Justify, apply & generalise	Assessment Framework anchor(s)
Evidence & explanations	Respond to a cause-and-effect experience.	Describe what happened using familiar words, symbols or pictures.	Use observations and straightforward evidence to support an answer.	Explain results using relevant scientific knowledge and distinguish observation from explanation.	Build reasoned explanations that integrate data, models and prior scientific knowledge; recognise when evidence does not support a claim.	Prerequisite: comments on results/cause and effect. KS1: WS5. LKS2: WS9. UKS2: WS6. KS3: presents reasoned explanations in relation to predictions/hypotheses.
Reliability & improve	Repeat a familiar action to see whether the same thing happens.	Notice when results differ and try again with support.	Suggest a simple improvement or repeat an observation/measurement.	Comment on the degree of trust in results; identify sources of variation and improve the method.	Evaluate reliability, accuracy, precision, repeatability and reproducibility; recognise random and systematic error.	Prerequisite: repeats an action to test result. LKS2: WS7. UKS2: WS5. KS3: evaluates reliability and sources of random/systematic error.
Models & representations	Use real objects and direct experiences to build meaning.	Use pictures, simple diagrams or models to represent something that cannot be directly seen.	Use and discuss taught models to explain familiar phenomena.	Choose and use models, diagrams and representations to support explanation while recognising that models have limits.	Compare models, justify which is useful for a purpose and recognise how models change when new evidence requires refinement.	Science curriculum: models and diagrams embedded across biology, chemistry and physics; KS3 scientific attitudes link theories to new evidence.
Vocabulary & communication	Use or respond to familiar sensory and action words.	Use key scientific words to name, compare and describe.	Use relevant scientific vocabulary in oral, symbolic, pictorial and written explanations.	Communicate findings and reasoning for different audiences using increasingly precise terminology and conventions.	Use subject-specific terminology fluently, including SI/IUPAC conventions where appropriate, and justify ideas clearly.	Prerequisite vocabulary progresses from hear/see/push/pull to variables/chart/graph/table. KS1-3: scientific language and communication embedded in working scientifically.
Science develops over time	Recognise that people find things out about the world.	Recognise a scientist or familiar scientific job and something they investigate.	Learn how named scientists and evidence have contributed to explanations and discoveries.	Explain that scientific ideas can change when new evidence becomes available and compare historical and current explanations.	Understand the importance of publishing results, peer review, objectivity and the revision of theories in response to evidence.	KS2 units reference scientists such as Mary Anning, Darwin, Wallace, Galileo and Newton. KS3: theories develop with new evidence; publishing and peer review.

Evidence, explanation and scientific thinking - Progression moves from describing what happened towards reasoned explanation, evaluation and understanding how scientific knowledge develops.

Skill thread	Explore & notice	Choose & describe	Investigate & record	Plan, explain & evaluate	Justify, apply & generalise	Assessment Framework anchor(s)
Apply & generalise	Use a familiar scientific action or idea in a repeated context.	Recognise the same scientific idea in another familiar situation.	Apply taught knowledge to answer questions or solve simple problems in a new example.	Connect ideas across topics and use science to make informed choices about health, materials, energy or the environment.	Transfer connected knowledge to unfamiliar problems, evaluate claims and use evidence to make reasoned decisions about scientific and societal issues.	Assessment across online assessment science statements and qualification content evidences transfer, application and increasing independence.

SMSC and Fundamental British Values through Science

SMSC and Fundamental British Values are developed naturally through curiosity about the world, evidence-based reasoning, purposeful practical work, safe collaboration, ethical reflection and consideration of the impact of science on people and the environment. These opportunities remain rooted in clear scientific learning.

SMSC / FBV area	What Science develops	Expected Science activities and applications
Spiritual	Curiosity, fascination and wonder about living things, the Earth, space and the material world; reflection on experiences and explanations.	Observe natural phenomena; explore space, life and materials; ask questions; reflect on unexpected results; consider the scale and complexity of the natural world.
Moral	Evidence-informed decision-making; understanding consequences; ethical and environmental responsibility; respect for living things.	Discuss health, sustainability, biodiversity, climate, use of resources and age-appropriate scientific ethics; handle living things and materials responsibly; distinguish evidence from unsupported claims.
Social	Communication, teamwork, cooperation, shared responsibility and safe practical working.	Plan and carry out collaborative investigations; share apparatus; agree roles; listen to explanations; present findings; solve practical problems and follow safety routines.
Cultural	Understanding the contribution of scientists from different times, places and backgrounds and the global relevance of science.	Study scientists and discoveries from diverse contexts; explore global environments and scientific challenges; connect science to local communities, culture, technology and everyday life.
Democracy	Pupil voice, discussion, collective decision-making and respectful consideration of evidence and alternative explanations.	Choose questions to investigate; agree methods and roles; compare interpretations of data; contribute to group decisions and evaluate different evidence-based viewpoints.
Rule of Law	Understanding that agreed rules, procedures and responsibilities protect people, animals and the environment.	Follow laboratory and classroom safety expectations; identify hazards and controls; understand why procedures, product standards and environmental protections matter.
Individual Liberty	Independent enquiry, informed choice, curiosity and responsibility for personal decisions.	Choose appropriate resources or approaches; make increasingly independent predictions and decisions; use scientific knowledge to inform choices about health, lifestyle, energy and the environment.
Mutual Respect & Tolerance	Respect for different experiences, questions, ideas and viewpoints while using evidence and scientific reasoning to evaluate claims.	Work collaboratively; listen to others; discuss sensitive scientific issues respectfully; recognise that disagreement can be productive when ideas are tested against evidence.

Preparation for Adulthood through Science

Science supports Preparation for Adulthood because pupils learn to understand their bodies and health, interpret information, manage risk, solve problems, use equipment safely, make evidence-informed choices and understand the scientific and technological world around them. These links are strongest when the science learning remains explicit and is applied to authentic adult-life, community or vocational contexts.

PfA outcome	What Science develops	Expected Science activities and applications
Employment	Scientific and STEM thinking; practical technique; following procedures; accuracy; data handling; problem-solving; teamwork; communication; safe working and evaluation. Careers links include laboratory, quality control, pharmacy, medical laboratory, animal care, food science and lab-computing roles.	Carry out purposeful practical tasks; prepare and use equipment; measure and record accurately; follow protocols; check results; solve problems and communicate findings. Use employer encounters, STEM links and careers activities to connect science learning to workplaces, supported internships and future education or training.
Independent living	Using evidence and measurement in everyday decisions; understanding materials, energy, weather and the environment; organising equipment and following safe procedures independently.	Read labels and simple scientific information; compare products and materials; measure quantities and temperatures; understand energy use and electrical safety; interpret weather/environmental information; organise and clear a practical workspace and ask for support appropriately.
Health	Knowledge of the human body, nutrition, exercise, reproduction, disease, medicines, substances, mental and physical wellbeing, risk and reliable health information.	Apply learning about balanced diet, exercise, body systems, infection and response, reproduction and health; interpret evidence; distinguish reliable information from unsupported claims; understand when scientific and healthcare professionals can provide support.
Community inclusion	Understanding local environments, biodiversity, sustainability, climate, public health and how science supports communities and informed citizenship.	Study local habitats and environmental change; take part in fieldwork, conservation or community-linked science; visit science, healthcare or environmental settings; discuss how scientific evidence informs community decisions and responsible action.

Progression, accreditation and pathways: Key Stage 4 to Key Stage 5

From Key Stage 4 onwards, pupils continue to develop scientific knowledge, practical competence, scientific reasoning and independence at a level matched to their individual starting point, interests and intended destination. Progress is recognised through the school curriculum and linked assessment, including evidence from practical work, scientific enquiry, discussion, recorded outcomes and online assessment statements.

Where external accreditation is appropriate, the qualification is selected because it reflects the pupil's attainment and supports their next stage rather than determining the curriculum. The school's current Science scheme identifies Entry Level Science and GCSE Science routes, with learning progressing across biology, chemistry and physics. Careers learning also introduces pupils to further study, vocational and technical routes, apprenticeships, supported internships and employment linked to science and STEM.

The qualification levels below therefore show how scientific learning can progress from prerequisite knowledge through Entry Level and GCSE study, while recognising that pupils may enter, remain within or move between these points according to their individual profile.

Progression point	Expected Science learning	Recognition / possible next step
Pre-Entry Foundation	Explores the natural and physical world through purposeful observation and practical experience; notices cause and effect; compares and sorts objects, materials and living things; uses emerging scientific vocabulary; uses simple equipment; begins to predict, test and communicate what has happened.	Progress recognised through prerequisite Science statements, practical observations, photographs/video, pupil responses and curriculum assessment evidence. Foundation or personalised accreditation could be considered where appropriate.
Entry Level 1	Participates in highly structured scientific activities; identifies familiar scientific features and changes; follows simple practical procedures; uses familiar equipment safely with support; records or communicates simple observations and outcomes.	Curriculum linked evidence. Entry Level Science provides an appropriate accredited route where this reflects the pupil's attainment and next steps.
Entry Level 2	Applies familiar scientific knowledge to practical contexts; asks and answers simple scientific questions; makes comparisons and predictions; follows investigations; takes simple measurements and begins to record and interpret results with increasing independence.	Practical and curriculum evidence supports progression within the school's Entry Level Science route. Learning may also contribute to wider vocational, Preparation for Adulthood and STEM-related experiences.
Entry Level 3	Uses increasingly connected knowledge across biology, chemistry and physics; selects and uses equipment with growing independence; carries out structured enquiries; records data; identifies patterns; draws simple conclusions and uses scientific evidence to explain findings.	Entry Level Science accreditation where appropriate, supporting progression towards GCSE study, further education, vocational learning or science-related work experience.

Progression point	Expected Science learning	Recognition / possible next step
Level 1	Develops more secure and connected scientific understanding; applies knowledge to unfamiliar questions and practical situations; plans and carries out investigations with increasing independence; uses measurements and data appropriately; identifies variables, patterns and relationships and evaluates evidence.	GCSE Science where appropriate. GCSE grades 1–3 are Level 1 qualifications. Progression may also include further study, vocational or technical learning and STEM-related work experience.
Level 2	Applies increasingly sophisticated biology, chemistry and physics knowledge; connects scientific concepts across topics; uses practical and mathematical skills with greater accuracy; analyses and evaluates data and methods; explains relationships using evidence and communicates scientific ideas with increasing precision.	GCSE Science where appropriate. GCSE grades 4–9 are Level 2 qualifications and can support progression towards further education, technical study, apprenticeships and more specialist science or STEM pathways.
Post-16 destination pathway	Builds on individual scientific strengths, interests and qualifications through further study, vocational learning, practical application and Preparation for Adulthood. Pupils increasingly apply scientific understanding to health, environment, technology, employment and everyday decision-making.	Personalised next-step planning through Preparation for Adulthood and careers guidance. Possible future routes include further science study, vocational/technical qualifications, apprenticeships, supported internships and employment in science, healthcare, laboratory, environmental, animal-care and other STEM-related sectors.

Personalised progression: pupils do not need to move through these levels at the same rate or in a fixed sequence. Science learning is matched to each pupil's attainment, communication, practical independence, interests, next steps and intended destination. Pupils who are not working towards an external qualification continue to make and evidence meaningful progress through increasingly secure substantive knowledge, disciplinary knowledge, scientific vocabulary, practical competence, reasoning and independent application.