

Science Subject Development Plan 2025 - 2026

School SDP Priorities:

Priority 1: To improve standards in Reading, Writing and Maths throughout the school and improve the rates of progress and to have high expectations for all pupils.

Priority 2: To improve the learning culture within the school, including raising the quality of teaching so that it is consistently Good. (Thereby improving the outcomes for pupils.)

To continue to achieve high levels of attainment for all learners in science through high quality teaching of an enriched and exciting curriculum. For all pupils to develop a love of science.

RATIONALE:

- a) To be equipped with the knowledge, skills and vocabulary to be expert learners in science.
- b) To enable all (especially EAL, SEN, PP) learners to succeed.
- c) To have high expectations for all learners and for most to achieve ARE by the end of the year.

It is essential to focus on delivering high-quality teaching, developing an effective curriculum, utilising clear assessment and tracking systems, ensuring strong leadership, and fostering an inclusive environment. Additionally, prioritising student engagement, well-being, and involvement with the wider community is crucial for creating a supportive and effective learning environment. With these key actions in place, the school can maintain continuous improvement and ensure all students have the best possible opportunities for success within History and the wider curriculum.

Success criteria:

In EYFS, our intent is to nurture children's **curiosity, confidence** and **early scientific thinking** through hands-on exploration of the world around them. We aim to develop strong foundations in **observation, questioning, exploration**, and **simple problem-solving**, preparing children for the more formal scientific learning in KS1.

Aim

Our aim is for children to:

- Develop a sense of **awe and wonder** about the natural world.
- Build early skills in **noticing, observing, predicting, comparing and talking about what they see**.
- Explore materials, living things, forces, and changes through **play-based, practical experiences**.
- Use simple scientific language to describe their ideas.
- Become confident, independent explorers who are eager to investigate and ask questions.

Skills developed by the end of KS1:

- **Ask simple questions** about what they notice.
- **Observe closely** using simple equipment.
- **Carry out simple tests** with support.
- **Sort and classify** objects, materials and living things.
- **Record simple data** (drawings, tallies, simple tables).
- **Use observations to answer questions** and make simple suggestions.

Skills developed by the end of KS2:

- **Plan scientific enquiries** and identify variables.
- **Take accurate measurements** using a range of equipment.
- **Record data** in tables, bar charts and line graphs.
- **Identify patterns and draw conclusions** using evidence.

- **Evaluate results** and suggest improvements.
- **Explain findings clearly** using scientific vocabulary.

Assessment and Progression:

KS1:

Knowledge Progression

Pupils show that they can:

- Know basic features of plants, animals, humans, materials and seasonal changes.
- Use simple scientific vocabulary correctly (e.g., roots, habitat, solid, light).
- Describe simple changes, patterns or features they observe.

Working Scientifically Progression

Pupils can:

- Ask and answer simple questions.
- Make simple observations and measurements.
- Perform simple tests with support.
- Sort and classify based on obvious features.
- Record data in simple forms (drawings, tallies, simple tables).
- Use observations to explain what happened.

Assessment Indicators (KS1)

A child working at expected level will:

- Participate in practical activities confidently.
- Notice and describe changes or patterns.
- Provide simple explanations using everyday scientific language.
- Complete simple data recording accurately.
- Use their findings to answer straightforward questions.

KS2:

Pupils show that they can:

- Apply secure understanding of science topics (forces, states of matter, evolution, circuits, etc.).
- Use scientific vocabulary confidently and accurately (e.g., evaporation, classification, variable).
- Connect ideas across topics (e.g., how light and shadow relate, how forces interact).

Working Scientifically Progression

Pupils can:

- Plan scientific enquiries and identify variables.
- Take accurate, repeatable measurements with correct equipment.
- Record data in tables, bar charts, and line graphs.
- Identify patterns, relationships and trends in results.

- Draw conclusions supported by scientific evidence.
- Evaluate the reliability of methods and suggest improvements.
- Present findings clearly in written and oral forms.

Assessment Indicators (KS2)

A child working at expected level will:

- Independently plan aspects of an enquiry.
- Select and use appropriate equipment accurately.
- Explain results using scientific concepts and evidence.
- Make justified conclusions and evaluate limitations.
- Communicate findings clearly using correct terminology.

Priority	Actions	Who	When	Evidence / Impact
1. Curriculum Progression	Review and map topics to ensure coverage of NC PoS; produce progression map for knowledge & skills; ensure smooth transition between KS1 & KS2	Science Lead	Autumn	Clear progression documents; teachers confident in what to teach
2. Working Scientifically	Introduce whole-school enquiry model (e.g., question → predict → test → record → conclude); include WS objectives on all planning sheets	Science Lead / Teachers	All year	Regular practical enquiry; pupils articulate methods confidently
3. Vocabulary Development	Develop science word banks per year group; display vocabulary in classrooms; embed in retrieval practice	Teachers	All year	Improved vocabulary use in books and discussions
4. Assessment & Monitoring	Introduce formative assessment grids per unit; termly book looks; moderate end-of-unit outcomes; pupil voice	Science Lead/ teachers	Termly	Teachers accurately assess; progression visible
5. Practical & Outdoor Learning	Increase hands-on experiments; develop links with local nature reserves, STEM ambassadors; schedule termly outdoor sessions	Teachers	All year	Pupils more engaged; practical photos/evidence

6. CPD & Resources	Provide CPD on enquiry types, fair testing, differentiation; audit resources and restock equipment	Science Lead	Spring/Summer	Improved quality of lessons; adequate equipment
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