



EUXTON PRIMROSE HILL

Primary School

"Together we will make a difference."

Subject Leader Report – Science

Science Leader: Kathleen McKinley

Subject Overview:

The aim of Science teaching at Euxton Primrose Hill Primary School is to stimulate and excite children's curiosity about phenomena and events in the world around them and give them the knowledge that enables them to understand what is happening. We believe that scientific method is about developing and evaluating explanations through experimental evidence and modelling and that this encourages critical and creative thought. Through Science, pupils understand how major scientific ideas contribute to technological change - impacting on industry, business and medicine and improving the quality of life. We believe that through science, children learn to question and discuss occurrences and issues that may affect their own lives, the direction of society and the future of the world. They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes. Our science principles (developed by the pupil Science Leaders and staff) have been developed into a vision of science:

At Euxton Primrose Hill Primary School our vision is to give children a Science curriculum which enables them to explore the world around them, using the outdoors as an extension of the classroom, so they have a deeper understanding of how the world works. To achieve this, opportunities are given to work collaboratively with practical, hands-on activities encouraging children to investigate their own questions and use their curiosity as a springboard to learning. Our aim is to involve the children in explaining and teaching others to help secure and extend their scientific knowledge and vocabulary, creating lifelong learners and scientists.

At Primrose Hill, we understand our responsibility in preparing children for their next stage of education and for the opportunities, responsibilities and experiences of later life, laying the foundations so that they can take their place successfully in modern British society. We promote a **respect** for and understanding of different faiths, cultures and lifestyles through learning about scientists from around the world and the ways in which religion and science coexist. The need for **laws** to help society use scientific discoveries for the greater good is explored as the children's understanding of consequences increases. Children understand that not all scientists will agree with each other and that debate is a sign of a healthy **democracy** and that **courage** (to challenge established ideas), **ambition** and **excellence** are key to success in science. This ensures the application of Fundamental British Values and the school's core values of Courage, Ambition, Respect and Excellence.

Curriculum Mapping Rationale

Science is taught through a topic approach based on the National Curriculum 2014 with working scientifically skills following a progression approach using the Lancashire skills grid. Our curriculum is carefully planned to engage and excite all of our learners; phase maps ensure that a range of topics are taught across the phases, with some topics adjusted across year groups in order to closely fit with other subjects and allow for a cross-curricular approach when possible. For the majority of topics, science is taught weekly with a more fluent and yearly approach in EYFS and year 1. The Association for Science Education (ASE) resources, including PLAN, are used to assist with both planning and assessment. Progression in vocabulary is clearly mapped out on the progression of knowledge documents.

Assessment:

Ongoing assessment and review is fundamental to Science teaching at Primrose Hill; teachers are constantly making judgements with regards to attainment and understanding in lessons and altering provision accordingly. Through professional dialogue, we seek to close gaps in understanding and ensure value added attainment – intervention for support and challenge is planned accordingly. Children are assessed formatively (this can be via a quiz, written test

or task) at the end of each topic and this data is used to identify children who might need further support (within the class) and by the subject leader to identify any trends across particular areas of science which may require further CPD or particular groups of pupils that are struggling/excelling. End of year grade sheets are used to monitor the progress of all cohorts as well as groups of pupils including pupil premium and SEN. Current guidance does not recommend assessing children in science for AGD although some children may stand out in this regard and be suitably challenged in class. Assessment questions form a key part of the new knowledge organisers, allowing children to fully demonstrate their understanding of a topic. Parents are informed of their child's attainment and effort on a termly basis through parent consultation evenings and report cards. Additionally, children are assessed at the end of each Key Stage against DfE descriptors and results reported to the DfE.

Whilst data gives a snapshot of attainment and progress, standards in Science at Primrose Hill are continuously monitored using a plethora of approaches and methods including: planning reviews, book looks, teacher discussions, pupil interviews and Science Leader discussions and evidence collecting. Governors are well informed of standards through the annual impact report. The school has been awarded the Primary Science Quality Mark (PSQM) twice and has just been awarded the **PSQM Gilt Award**; this is a process which recognises schools that emphasise the importance of science and identify ways in which to improve teaching, learning, subject leadership and wider opportunities – the gilt award makes clear the *science curriculum engages, inspires and challenges all children, and staff and subject leader's actions support and impact on children's learning*.

Enrichment opportunities:

| Year group | Enrichment opportunity |
|---------------------|--|
| Whole school (Y1-6) | Adrian Bowden's Travelling Science Show - A visiting scientist comes into school during the year to carry out workshops for KS1 (one session) and KS2 (two sessions) covering a number of different science areas – this is part of a yearly programme that introduces and increases children's understanding of basic physical processes. Curriculum/science capital |
| Year 1 | Bring Your Wellies – educational outdoor experience to build on work with nature, habitats and plants. Science capital |
| Year 3 | Link with geography – coastal erosion. Trip to Formby beach. curriculum |
| Year 4 | Link with geography - Cuerden river trip linked to water cycle curriculum |
| Year 6 | Career day – parents spoke about their careers in STEM science capital/careers |

Review of Previous Subject Development Plan 2024-25:

| <u>Target</u> | <u>Steps to achieve target</u> | <u>Impact</u> |
|---|--|--|
| Further enhance the profile and teaching of science in school via the PSQM process – aim to achieve Gilt Award. | <ul style="list-style-type: none"> ➤ attend PSQM sessions throughout the year ➤ complete the tasks and activities assigned ➤ produce final submission | <ul style="list-style-type: none"> ➤ submission sent June 2025 – awaiting outcome |
| Continue to highlight current issues and science in the news to stimulate science enrichment. | <ul style="list-style-type: none"> ➤ Science leaders in year 5 and 6 to signpost other teachers weekly to these chosen news articles that they can share with their class. www.sciencejournalforkids.org | <ul style="list-style-type: none"> ➤ Not focused on due to unexpected need for other priorities for PSQM – carry over to 2025-6 |

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|--|--|--|
| | provides articles for older pupils in KS2 – could be used in KS1 ➤ Participate in Great Science Share (GSS) and National Science Week. | ➤ Increased engagement with science during National Science Week |
| Make links with high schools to ensure doing all we can to aid with transition and curriculum prepares children for high school science. | ➤ Liaise with science leaders in two feeder high schools (school currently has over 10 high schools we feed into). ➤ Arrange for visit (either to them or for a teacher from there to visit Primrose Hill). | ➤ Continued difficulty making contact with high schools |

Staff training 2024/25:

| <u>Staff CPD</u> | <u>Intended impact</u> |
|------------------------------------|--|
| Staff meeting – all teaching staff | Sharing of information from PSQM sessions and sessions on specific objectives. |
| Individual – Y2 | Supported teacher new to Y2 with planning and activities. |

Current Targets for Subject Development Plan 2025-26:

| <u>Target</u> | <u>Steps to achieve target</u> |
|---|---|
| Use data from science leader assessments for development priorities in teaching and learning. | <ul style="list-style-type: none"> • set up, in collaboration with teachers, Showbie assessments for each science topic across the year groups • use quizzes with science leaders to assess 'sticky learning' from previous topics they have studied • share data with teachers to help inform teaching and learning |
| Develop systematic process of teaching children how to ask questions | <ul style="list-style-type: none"> • Focus on one aspect of the PSTT questioning resources per term in KS2 • Monitor impact on children's ability to ask questions and understand how to answer them |
| Investigate further opportunities to make cross curricular links | <ul style="list-style-type: none"> • Use AI to establish where there are further opportunities for cross curricular links • Work with teachers to embed certain key scientific skills in other areas and establish which skills from other areas can be embedded in science |
| Continue to highlight current issues and science in the news to stimulate science enrichment. | <ul style="list-style-type: none"> • Science leaders in year 5 and 6 to signpost other teachers weekly to these chosen news articles that they can share with their class. www.sciencejournalforkids.org provides articles for older pupils in KS2 – could be used in KS1 • First News to be continued with pupils in year 5 and 6 – focus on science news each week |

Planned Staff training and intended impact:

| <u>Staff CPD</u> | <u>Intended impact</u> |
|--------------------------------|---|
| Sessions with individual staff | <ul style="list-style-type: none">● Sharing of key information for particular year groups/topics.● Establish best phrasing of questions to assess knowledge in Showbie assessments |
| Staff meetings | <ul style="list-style-type: none">● share objectives and resources for the questioning focus for the term for KS2● share best practise and any new resources |