



Subject intent Our high-quality science curriculum ensures all children are taught essential aspects of the knowledge, methods, processes and uses of science across the three distinct disciplines of Physics, Chemistry and Biology. Pupils are encouraged to recognise the power of rational explanation, predict how things will behave, analyse causes, develop an excitement and curiosity about natural phenomena so that they are equipped with the scientific knowledge required to understand the uses and implications of science today and for the future.

If you were to walk into a Science lesson at Esher Church School you would see: explicit sharing of prior knowledge and children raising their own questions; learning new scientific vocabulary; exploration of the world around them; practical enquiry involving small groups of children; understanding of the scientific process, progressing to control of variables; encouragement of reflection including next steps and possible future investigations; enthusiasm and a love of the subject.

Successes in 2022-2023

- Learning Walks carried out to observe science in the school – this encouraged more practical science.
- Discussion with teachers – learnt that they feel confident teaching science in their year group.
- Identified that science resources require an in-depth audit so that more resources can be ordered to support the teaching of practical science across the school.
- Thorpe Park STEAM event for years 5 and 6, organised by ACS International Schools – this was a celebration of science that helped to excite and inspire the children.

Pupil Premium, British Values, challenge and SEND (implementation)

- British Values: democracy - encouraging children to take the views and opinions of others into account; understanding that scientists often disagree. Rule of law- understanding need for safety. 'Mutual Respect'- working scientifically as a team, discussing findings and offering support and advice to others.
- More focus on class discussion of ideas and investigation findings, plus raising questions – this helps support those who find reading and recording more difficult.
- Teaching science as part of the distinct disciplines of physics, chemistry and biology means the children clearly understand the units they are learning. They have a greater awareness of the significance of the unit of work and how it builds on previous learning.
- SEND: by outcome and supported with reteaching of vocabulary.
- Challenge: by outcome. Children are encouraged to make deeper connections between their learning across units and subjects.

Priorities for 2023-2024

- Carry out an audit of all science resources and order more where required.
- Assessment – how are teachers assessing science? Creation of science assessment grids that can be handed up to the next teacher?
- Curriculum: investigate the use of White Rose and Hamilton Brookes resources to support the planning of science.
- Investigation of new Cusp curriculum – particularly online science CPD – in preparation for implementation in September 2024.

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| <p>Parental engagement (implementation)</p> <ul style="list-style-type: none"> • British Science Week (March 2024) – parents were made aware and activities children were involved in were communicated to them. • ECS weekly newsletter – photos included regularly showing practical science activities carried out in classes across the school, along with details of the learning involved. | <p>Monitoring, observation and validation, including pupil voice considering progression (impact)</p> <ul style="list-style-type: none"> • Pupil voice shows that children are enthusiastic about science. • Book Look shows how more practical enquiries and ‘working scientifically’ is taking place across the school, aided by the provision of more resources. • Lesson observations show children’s high engagement with science activities and a thirst for new knowledge. | <p>Professional development opportunities</p> <ul style="list-style-type: none"> • Spark network meetings - 1st Feb 2024 (online) and an in-person meeting on 13th June 2024. • Use of ‘Explorify’ – link shared with teachers – encourage discussion and ‘thinking’ in science; support and enhance planning and teaching. |
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