

Curriculum Intent

We aim to...

- Deliver an engaging and exciting curriculum that helps develop a love of science and inspires children to question.
- Encourage children, regardless of their needs, to develop a passion for science. Children harness their natural curiosity and want to pursue scientific enquiries.
- Provide children with essential skills in hypothesising, predicting, fair testing, gathering data, analysing data and writing a detailed conclusion.
- Support children to acquire and develop key knowledge that has been identified within each unit and across each year group.
- Develop children into scientists with an understanding of how to work scientifically.
- To build on and use key scientific vocabulary.
- To develop children's perseverance skills in order to take risks and develop their resilience.
- Create a culture where children love to set up scientific investigations and they take pride in their work.

Curriculum Implementation

How do we achieve our aims?

- Follow a clearly sequenced and progressive program of study based on the National Curriculum objectives.
- High-quality teaching that is appropriately pitched to individual children.
- Seek answers to questions through collecting, analysing and presenting data.
- Apply mathematical knowledge to their understanding of science, including collecting, presenting and analysing data.
- Enrichment opportunities such as visitors to school who demonstrate scientific concepts through motivating activities.
- Building cultural capital of all individuals through visits to places of scientific interest and discovery.
- Work scientifically by observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing (controlled investigations); and researching using secondary sources.
- Science and scientific discovery are valued, and links are made with children's personal experiences.

Curriculum Impact

How will we know we achieved our aims?

- Children are engaged in their learning and share a passion for science.
- To be confident in the use of key vocabulary in a range of contexts and are ambitious in achieving age-related expectations.
- Children know more and remember more, demonstrating good progress from their starting points.
- Children can explain their own scientific thinking and understand that science is constantly developing and improving thus impacting our daily lives.
- All children to feel they are scientists and capable of achieving high aspirations in the field of science. They understand that science has changed our lives and is vital to the world's prosperity.
- Children can recognise and appreciate the diversity of Scientists in Britain and around the world.

School Improvement Priorities

Progress: To use ongoing assessment effectively to close the academic gaps between key groups to ensure that all children make at least expected progress from their own starting point in reading, writing and maths.

Curriculum: To monitor the impact of curriculum provision and enrichment opportunities to ensure all children have access to a broad and balanced curriculum that meets their needs.

English - To develop staff's pedagogical knowledge in relation to writing so that we create confident and proficient writers, building on our embedded approaches to communication, language, phonics and reading.

Culture - To create a positive culture throughout the school, rooted in our school values and positive behaviour to in turn increase NOR and attendance to be above the primary national average - 94.6% with a school target of 97%.

What are your key priorities?

To use assessment and retrieval to identify and address gaps in scientific knowledge and vocabulary. To monitor progress in scientific knowledge and working scientifically to ensure all children achieve from their starting points.

To evaluate and refine progression in scientific knowledge and working scientifically across the school. To develop meaningful practical, outdoor and enrichment opportunities, including links to the Ocean Curriculum.

To develop children's confidence in using and applying scientific vocabulary accurately. To develop children's ability to communicate scientific ideas through speaking, reading and writing.

To develop a strong whole-school culture where children are curious, confident and enthusiastic about Science. To raise the profile of Science through Science Ambassadors, enrichment opportunities and celebration of scientific achievement.

CPD

- Share relevant CPD knowledge, research and resources with staff through INSET and staff meetings to develop confidence and consistency in the teaching of science.
- Keep up to date with national and local science developments and initiatives, using these to inform school practice.
- Meet with Science Leaders across Connect Academy Trust to share good practice, resources and ideas.
- Maintain ASE membership and access relevant professional resources and guidance.
- Use CPD and monitoring findings to identify staff development needs and provide targeted support.
- Review and audit science resources to ensure staff have appropriate equipment and resources to teach science safely and effectively.
- Use PSQM reflection and evidence to evaluate the impact of CPD and identify next steps for further development.

Voice behind the subject

- Pupil voice/quotes
- Parent comments
- Teacher voice
- Book looks/monitoring
- Learning walks
- Learning walls/display

Adaptive Teaching

- Rephrasing questions or content.
- Adapting language to ensure all learners understand the content.
- Providing exemplars or WAGOLLS - 'what a good one looks like.'
- Highlighting and emboldening key learning points.
- Prompting learners with key words, visuals, sound bites or other sensory stimuli.
- Setting up temporary groups as an additional layer of scaffolding.
- Gauging group responses to support individual answers.
- Give enough time for children to complete tasks.
- Use various strategies to build background knowledge and make connections.
- Giving step-by-step instructions for tasks.

Provision for all

- Quality first teaching.
- Promoting science throughout the school.
- Children have access to and use high-quality resources.
- A range of enquires and investigative work to apply their knowledge.
- Children being actively involved in the lesson.
- For EYFS, children to have lots of explorative activities to make them curious and ask questions.
- Targeted questioning in lessons.
- Assessment for Learning techniques.
- Targeted planning to consolidate knowledge.
- Mixed ability and targeted grouping.
- Use of word maps and knowledge organisers.
- Vocabulary pre-teach
- Giving choice and ownership of recording.
- Adaptive teaching.

Enrichment Opportunities

- Science Week
- Ocean Curriculum
- Healthy Living - importance of healthy, balanced diets and healthy lifecycles is explicitly taught and unpicked. The negative effects of drugs and alcohol on the body, life and relationships is unpicked and covered both within Science and P.S.H.E
- Forest School - Various year groups.
- Healthy teeth visit - KSI.
- Kents Cavern - Year 3
- Eden Project Trip - Year 5