



Churchside Federation Science Curriculum Intent, Implementation and Impact.



Intent: Science teaching at Churchside Federation aims to give all children a keen interest in the world around them by encouraging enquiry and questions about how and why things work. We aim to foster a love of science by encouraging children to explore big questions and challenging the answers they find.

At Churchside Federation scientific enquiry skills are embedded in each topic the children study. We have split these skills into 3 Golden Threads that weave through our curriculum. These threads are; investigation, observation and application and are revisited and developed throughout each year group as the children go through school. During the year we teach the children in whole Federation cross curricular themes, allowing children to apply these skills in many different ways.

Implementation: The children are given a rich diet of subject knowledge that builds each year in content, vocabulary and skill. As well as focusing on the national curriculum objectives for each year group we also intertwine 6 golden threads to ensure children are given opportunities to apply and extend their knowledge and skills. This model allows children to build upon their prior knowledge and increases their enthusiasm for the topics whilst embedding this procedural knowledge into the long-term memory. Through this approach children are being encouraged to question the world around them and become independent learners in exploring possible answers for their scientific based questions. Specialist vocabulary for topics is taught and built up, and effective questioning to communicate ideas is encouraged.

To ensure our coverage and teaching is up to date, we maintain a high level of subject knowledge of science in our school by regular training and professional development. Teachers use assessment for learning to tailor lessons around our children and help us plan for next steps. In our school we strongly encourage all pupils to use specific topic related vocabulary through use of knowledge organisers. Through effective teaching of science, we develop children's knowledge and key skills during each topic. Regular monitoring shows that our children understand and apply key scientific principles within their work. Children are provided with regular opportunities to develop strategies to apply their learning in a philosophical/open manner. Trips and visits from experts are carefully planned for and enhance the learning experience.

Impact: Children enjoy and are enthusiastic about science in our school There is a clear progression of children's work and teacher expectations throughout the year groups. Children's work shows a range of topics and evidence of the curriculum coverage for all science topics. Children are becoming increasingly independent in science, selecting their own tools and materials, completing pupil lead investigations and choosing their own strategies for recording. Feedback from teachers has impact on our pupils, often with next step questions to push learning on. Standards in science at the end of the key stages are good and issues arising are addressed effectively in school. Teachers' judgements are moderated internally and externally at DNEAT science ambassador meetings. Our SLT and governors are kept up to date with developments in the way science is run in our school with subject reports, action plans and review meetings.