



Science Intent

Our aim at Burlington Junior School is to provide an ethos and atmosphere where children enjoy and develop a good understanding of different areas of Science (biology, physics, chemistry) according to outcomes stated in the National Curriculum. We also aim to provide children with an understanding of Environmental Science as well as knowledge about past and present scientists.

We strive to ensure that all our boys and girls know that they can access Science as equals and can attain careers in Science related jobs in the future. We improve scientific understanding by enhancing: observational skills, curiosity, deeper thinking, independence, the ability to take time to consider, working collaboratively and becoming more resilient. Children are able to refine key scientific skills whilst using equipment including microscopes, data loggers and various measuring equipment. They learn how to use these accurately, take repeat measurements, record and analyse. Pupils plan and complete investigations, form conclusions and think about ways to proceed forward from investigations. We are working hard to develop STEM skills, in boys and girls, to ensure that all our children understand and have a feeling of belonging regarding Science as a subject. Opportunities are provided to enhance knowledge and understanding in making and creating, which develops engineering knowledge and other valuable cross-curricular skills.

To ensure that pupils can develop secure knowledge our science curriculum is organised into a progression model that outlines the skills, knowledge and vocabulary to be taught in a sequential, coherent way. Working Scientifically skills and subject areas-Plants, Animals including Humans, Rocks, Light, Forces and Magnets, Living things and their Habitats, States of Matter, Sound, Electricity, Properties and changes of Materials, Earth and Space, Forces, Evolution and Inheritance- are all mapped out to ensure that pupils build on secure prior knowledge.

When teaching each of these strands, content will be carefully organised by each year group within their long term plan. Knowledge, vocabulary and skills will then be planned for in detail in the medium term plan. Science is delivered either through subject specific teaching organised into blocks under a theme or individual weekly lessons. Meaningful links with other subjects are made to strengthen understanding and support pupils to make meaningful connections.

How will our intent be implemented in the classroom?

All learning will start by revisiting prior knowledge and making meaningful connections. Staff will model specifically the subject specific vocabulary, knowledge and skills relevant to the learning to allow pupils to integrate new knowledge into larger concepts. Concrete resources such as fossils, electrical equipment and prisms are utilised - as well as specific equipment for measuring such as data-loggers, force meters and thermometers- and these will support learning and enable children to work scientifically.

Consistent learning walls in every classroom provide constant scaffolding for children. Subject specific vocabulary is displayed on the learning walls along with key facts and questions and model exemplars of the work being taught.

Curriculum quizzes are used to review learning and check that children know more and remember more.



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Impact is measured using a range of formative and active assessment methods. Teachers assess individual pupil's scientific knowledge and working scientifically skills. National Curriculum objectives are used to inform teachers and leaders of the skills and knowledge the pupils have achieved or need to improve further.

Children are given many opportunities to learn and explore Science in a cross curricular way. A large range of visits, visitors, events and projects are experienced to engage, showcase and promote Science in school and beyond. The many Science successes are shared within the school, between Burlington, other schools and across the community.

What is the impact?

At Burlington, 'pupil voice' shows that children are confident, enthusiastic young scientists who take pride in their Science work and the Science reputation of the school. This is evident through observation of work around the school, via Twitter, the school website, through local media, our newsletter, our Enthuse Partnership blog and Science publications.

The Science Lead and school leaders closely monitor all pupil's books and progress. In addition, pupil voice is used to enable the Science lead to assess the impact of Science across the curriculum.

Work demonstrates that pupils are learning in a progressive way, building on prior learning and developing working scientifically skills and knowledge as they progress through the year groups. They are producing work of a standard outlined in the National Curriculum and show an understanding of Science concepts and associated vocabulary. Pupil voice shows that they enjoy Science and have a good understanding of the various elements of the subject. They know that all children are equal and that they can all access and enjoy Science as they progress on their learning journey.