



Science Intent, Implementation and Impact

Intent

To ignite curiosity, be relevant and appropriately challenging. We want to inspire children to explore, have an inquiring mind and ask and answer scientific questions.

At The Reddings Primary School, our science curriculum is intended to ignite curiosity, be relevant and challenging for all.

We aim to inspire children to want to explore scientific concepts and the world around them. We want children to be prepared for living and working in an increasingly scientific and technological world and enable them to develop the skills of scientific investigation and inquiry.

Through high quality and hands on science teaching and learning, we want to equip children with the scientific knowledge and skills they need, develop children's use and understanding of scientific vocabulary and help them to make links between science and other subjects through their learning and how it is sequenced.

Implementation

At The Reddings Primary School, we implement the science curriculum in a way that is progressive throughout the school. Children build upon prior knowledge and skills, developing their scientific understanding year on year.

For example, in Year 1 one aspect of science they learn about is plants, focusing on the plants around them. They learn to name plants and their parts found in the school grounds and some that are commonly found in local gardens and parks. The children identify what they need in order to grow and stay healthy. Our children work scientifically, making observations as they grow their own plants from seeds, ensuring they have the light, water and nutrients they need to thrive. As the children move into Year 2 they focus further on how plants grow and investigate what happens when plants do not have all the necessities they need to grow as they should. They develop the skill of making a hypothesis and reaching conclusions, based on scientific evidence and findings. Moving into Key stage 2 and Year 3 the children now investigate plants further and focus on an important aspect of how they grow and survive by transporting water through the stem and into the leaves where plants make their own food through the process of photosynthesis.

The 'Curriculum Overview' includes what is to be taught in science for each year group and when. It highlights the progressive nature of the sequencing of the subject and also illustrates how learning links are made across subjects within the term or year. 'Subject Skills and Knowledge Organisers' have been written by the subject leader for each unit and are compliant with the National Curriculum Programme of Study as well as, Herts for Learning Science Topic Maps and progression of skills. These are used to guide planning for each year group.

Subject skills and knowledge organisers detail what must be taught in each unit, list the essential skills and knowledge the children are expected to learn and include the expectations of how the children will work scientifically. They also identify and explain key vocabulary and suggest key questions that should be used as part of ongoing AfL in lessons, so that teachers can ensure children are working at age and curriculum related expectations.



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Science is taught as a block of lessons each half term. The children told us that they prefer learning in this way. Teaching science in blocks allows children to be fully immersed in the knowledge and skills they are developing in each unit, provides opportunities for practical and hands on learning and meaningful cross curricular links.

At the beginning of each unit, teachers ensure that children start by recapping or sharing their prior knowledge and thinking about what new learning they would like to undertake. Throughout each unit, the pupils are encouraged to work scientifically using a range of practical resources to investigate, observe and explore as they learn. We believe this makes learning more memorable and fun and promotes all children being active learners

We use assessment for learning to ensure all lessons are relevant and will help to plan for next steps. Foundation subjects are assessed at the end of each block and analysis of this assessment is then used to make sure all children are continuing to make progress throughout our curriculum.

Subject leads are given regular time to ensure resources are kept up to date, to monitor subject across the school, create action plans and to provide subject feedback to SLT as appropriate.

Impact

Children will be working at age and curriculum related expectations in science across the school and where children are not yet working at the expected standard, teaching is adapted and scaffolded to support all learners to access the subject.

Through pupil voice and book studies children will be able to articulate the skills and knowledge they have acquired. Children will be engaged in explorative and exciting science lessons and want to find out more.

Children will know why their science learning is important to them and will demonstrate in their learning that they are developing an inquiring scientific mind and a wider understanding scientific vocabulary.

Assessments and monitoring will show standards in science will be high and will match standards in other subject areas.