



Science Curriculum Offer

Intent

It is our intention that our Science curriculum ensures that the National Curriculum requirements are not only met but children receive a broad and rich learning experience. At Westdale Infants, we encourage children to take a careful look at the world, their world, and to think and act as young scientists; carrying out experiments, inferring conclusions and understanding their discoveries. It is our vision to equip our pupils with key skills, knowledge and vocabulary to do this within a broad and rich learning experience. Our curriculum drivers are Communication, Creativity, Celebrating Difference and Kindness to Others and Ourselves and these are at the heart of our Science Curriculum. As a core subject, we believe that science teaching and learning should form an important part of our weekly teaching and learning throughout our school. We want children to know how relevant and connected science is to their changing world.

Wherever possible, science is incorporated into a cross curricular themed learning experience in each year group. For example in Year 1 children test properties of materials; absorbency of clothes and waterproofness of shelters before the 'visit' from the 'Weather Witch'. In year 2 children test properties and suitability of materials for rain hats incorporated into the pirate theme of 'Sailing the Seven Seas'. In the Early Years we foster a hands on curiosity for exploration of the world which forms a sound foundation for the development of scientific skills and knowledge on their learning journey through our school and beyond.

Implement

At Westdale we believe that nothing is learnt until it is in your long term memory. Teacher's plan science based sessions that include opportunities to revisit previous learning. To enable this, key vocabulary, skills and knowledge are highlighted on a whole school progression map and on year group maps to ensure progression and coverage. Teachers in year groups incorporate science teaching and learning into their week and there is often a natural cross curricular link within the theme of learning. Where this is not possible, science is taught discretely but in the similar way to other learning



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sessions. For example when children learn about the seasons each term, children revisit skills and knowledge when exploring similarities and differences. In the Foundation stage all children have the opportunity to experience similar activities through the term, usually in groups, facilitated by the teacher and support staff. We also strongly believe in building on and enriching children's individual interests during self-led play, and this is especially relevant in the Early Years. Teachers' plans reflect children's interests too as well as incorporating new and relevant learning opportunities. Teachers are able to incorporate a variety of scientific resources into learning sessions as well as using the school and local environment to inspire and explore. The science lead is part of the whole school team who has an overview of coverage and progression but the class teachers who know their children well ensure that science learning is delivered in a fun, relevant and exciting way. All staff ensure our curriculum drivers are at the heart of all we do in science. Examples of this in action are building bird feeders for birds visiting our playground in winter (F2), comparing and exploring our school playground to our local park when creating an enchanted woodland (Y1), and designing and making healthy spaghetti for 'Mr Twit' (Y2).

Impact

The impact of our science offer is measured through our monitoring cycle. Teachers keep whole class learning journeys which contain evidence of coverage and engagement and include examples of children's learning at all levels. These may be pictorial with annotated teacher comments also anecdotal where the teacher records individual child quotes. This is especially relevant in the Early Years. Teachers and TA's work closely together and in doing so there is continuous dialogue which naturally informs assessment and planning. Book scrutiny in teams is also part of this process. Senior leaders and the Science lead will initiate opportunities for the whole school to share the impact of learning, monitor progress between year groups and discuss individual progress. The Science lead carries out an overall work scrutiny at the end of the year and in doing so formulates an action plan for improvement which is then shared with the whole school team.



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Action points from the last work scrutiny in July 19:

- *children to have an awareness that they are learning about science. This can easily be incorporated into simply labelled WALTs in key stage 1 and a consistency across year groups about how science is taught.
- * scientific vocabulary is progressive across the school and teachers have access to this on a whole school progression map. Teachers are to be signposted to planning matrices which clearly contain linked vocabulary for each PoS.
- * professional dialogue with staff about useful and consistent ways of assessing science across the school including the use of assessment grids

Each year group has a set of key questions to consider during each PoS. These are detailed on whole year progression maps. These may be considered at the start of the learning as an elicitation activity, part way through or towards the end of a theme to assess understanding.

Here is an outline of the impact we are hoping the teaching and learning of Science will have on our children at Westdale Infants.

- *Children are knowledgeable about science and are confident to use scientific vocabulary to express their understanding .
- *Children ask questions to further their understanding.
- *They have an enthusiasm for science and get excited and engaged when learning about science.
- *Children are confident to use a variety of scientific skills of observing, classifying, finding patterns, research and fair testing.
- *Children who can make links to other areas of learning.



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*Children who show kindness and an awareness of themselves and the world around them when learning about science.