



ST ANDREW'S C of E INFANT SCHOOL

WOODLEA ROAD
LEYLAND
PR25 1JL



Our Science Curriculum

“An understanding of the natural world is a source of not only great curiosity but great fulfilment” – Sir David Attenborough

Intent

At St Andrew's our aim is to plan for an enquiry-based Science curriculum that engages, excites, and empowers our children. We want our children to develop a love for science that allows them to explore and understand the world around them, instilling in them an awareness of how science is relevant in their day to day lives. Science in our school provides an opportunity for the children to develop a natural curiosity through practical investigations, time to explore our outdoor spaces experiencing aspects of nature including habitats, plants, and seasons and to ask questions to further their conceptual understanding and scientific knowledge. It will encourage respect for living organisms and for the physical environment. The content of the curriculum is adapted to meet the needs of all learners and is taught in a logical progression that takes into account prior knowledge and has vocabulary at the heart of excellent daily practice. Teachers have a shared vision for science learning and reinforce an expectation that all children are capable of achieving high standards in science through immersing the children in a broad and balanced curriculum.

Implementation

We teach the National Curriculum, supported by a clear skills and knowledge progression. This ensures that skills and knowledge are built on year by year and sequenced appropriately to maximise learning for all children. The Association for Science Education (ASE) resources (TAPS and PLAN) are used to support both planning and assessment. Age related expectations and exemplification to support planning and evidence in books has been shared to ensure continuity and a high standard across year groups. The draft ASE PLAN resources are used to enrich and facilitate delivery of EYFS Understanding the World and Working Scientifically.

Specific science units are taught in each year group, building on from previously taught units and skill coverage. Teachers use a thematic approach



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to deliver cross curricular links where appropriate. Science is routinely taught weekly.

Memorable knowledge and skills have been identified for each of the units to provide progressive acquisition of knowledge. This is supported by the use of specific vocabulary which are displayed on working walls that teachers regularly refer to so that it sticks and enables children to readily apply to their written and verbal communication.

Teachers plan a sequence of lessons for each topic which carefully plans for progression and depth. Teachers have introduced the use of 'Explorify' to challenge higher order thinking skills and discussion. The use of trips and visitors from experts will enhance the learning experience.

Impact

The successful approach to the teaching of science at St Andrew's will result in fun, engaging, high quality science education that provides children with the foundations for understanding the world that they can take with them once they complete their primary education.

Ongoing assessment and review allows teachers to make judgements with regards to attainment and understanding within lessons, to adapt future lessons to the needs of the children and allows for misconceptions to be addressed more immediately rather than building on insecure scientific foundations. Assessment also takes place formatively a short period after completing each unit and this is used to identify who needs further support or further challenge.

Children are also assessed at the end of each year against ARE's and at the end of KS1 against DfE descriptors. Attainment is recorded on Year Group specific grids that provide an overview for each child. Overall attainment is recorded half-termly to indicate those at, above or below ARE.

Standards are monitored in a variety of ways: book scrutiny, teacher discussions, pupil interviews and Science Leader discussions and evidence collecting. Moderation is completed at the end of each year to provide consistency in year group attainment. A report to Governors is completed annually.

Staff identify the impact of our curriculum through a variety of ways.



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These include:

- Observations
- Regular recall and retrieval activities
- Targeted questioning
- Marking and feedback
- Teacher assessment against key performance indicators
- Pupil interviews
- Analysis of data

We use these strategies to review our curriculum offer, inform our strategic action planning, and make adaptations where necessary.

We know our science curriculum is effective when we see:

- Curious and inquisitive children who demonstrate a love of science work.
- Children who work collaboratively and to investigate and experiment.
- Children who can explain the process they have taken and reason scientifically using rich language linked to science.
- Children who are confident to question ideas and reflect on knowledge.
- Children who can recall knowledge that is pertinent to science with a real-life context.
- Children who are making good progress and achieve age related expectations in Science by the end of their cohort year.