

## Science

### Intent

At Stanton St Quintin Primary School we use the National Curriculum to ensure that learners develop their scientific knowledge and understanding of the world. We aim to inspire and excite learners' curiosity and passion to develop the scientific skills and knowledge which will enable them to question, investigate and explain the world and phenomena around them. We aim to teach the children to develop their scientific skills to observe, communicate and explain what is occurring, predict how things will behave and analyse causes.

### Implementation

At Stanton St Quintin, we believe Science is the foundation for understanding the world around children as they grow and develop as learners.

Science is taught once a week, or equivalent (for example in a block of lessons over a day or two), where children 'work scientifically' in every lesson. Through this process learners will acquire scientific knowledge and language that is vital to understanding of scientific concepts. As they 'work scientifically' learners will develop skills such as: observing, pattern seeking, identifying, classifying and grouping, predicting, comparative and fair testing, and researching. Their scientific knowledge and understanding will be demonstrated in written and verbal explanations, solving challenging problems and reporting scientific findings.

Our Science curriculum provides high quality teaching and learning in Science through a progressive system of knowledge and skills based on the National Curriculum. Learning will build upon previously secured knowledge to allow genuine progression.

In EYFS, Science learning is facilitated mainly through the Early Learning Goal of "Understanding the World". There are opportunities for children to explore the world around them, to investigate and follow through with their thoughts and ideas. This includes activities which are planned for as part of the early learning goals as well as in response to in-the-moment situations. Children are provided with concrete materials and encouraged to take risks with their learning. Children's critical thinking is supported with key questioning. This gives learners a secure base for their subsequent Science learning.

Where possible, learning is linked to the class topics to provide further cross-curricular links with other subjects. This will reinforce the scientific knowledge being taught and offer further opportunities to practise skills.

Learners' knowledge of subjects is assessed at the beginning of a topic. These activities begin with the learners' own knowledge (What I know) and develop their own curiosities through generating questions (What I want to know) at the start of the topic. These questions drive the planning of the learning journey. A learner's knowledge is then assessed at the end of the topic (What I have learnt) through a variety of activities.

Learners are taught age appropriate scientific language and are encouraged to develop and use this language through discussion when rationally explaining the world around them. Learning environments will display current learning, implementing scientific vocabulary to support and scaffold learners.

Where appropriate, Science learning may be supported by school trips or visitors to school. These visits are based on key areas in the curriculum to help pupils develop and apply their scientific skills and knowledge. Learners will acquire an increasing ability to form ideas and rationally explain a viewpoint through questioning and gathering of evidence to support or refute an argument in Science. These skills will be explicitly taught and developed through wider application in other subjects.

Where possible, children are given the opportunity to develop their use of computing and ICT skills when investigating and recording.

For two terms each academic year, each class also benefits from one afternoon a week of "enrichment" science learning. This is a largely practical session, not necessarily linked to other areas of the curriculum, where children build their practical skills and enthusiasm for using science to ask and answer questions about themselves and the world around them, both local and farther afield.

In Year 5 & 6 children may have the opportunity to do some enrichment and/or AGAT science learning with a local secondary school.

### Impact

At Stanton St Quintin, our aim is that our Science provision will impact children in the following ways:

- Learners will aim high and take responsibility for their learning so that they develop their scientific knowledge and conceptual understanding.
- Learners will be equipped with the knowledge to understand the uses and implications of Science in the past, today and for the future.

- Learners will be courageous and ask questions about the world around them.
  - Learners share their own ideas as they 'work scientifically' and are willing to listen to the views of others to help shape and develop their own understanding.
  - Learners will select and use their range of scientific skills effectively across different areas of the curriculum.
- Achievement in Science is reported nationally at the end of each key stage (Year 2 and Year 6) in accordance with national guidelines by teacher assessment. We monitor the impact of our Science provision through termly teacher assessments, lesson observations, pupil voice discussions and Science evidence in children's topic books.