

## Intent:



**Happy Hearts-**  
To develop a deep love and passion for science in all children that will last a lifetime.



**Enquiring minds-**  
To ignite the enquiring minds and natural curiosity of all children and to encourage them to explore their curiosities further.



**Promising futures-**  
To inspire and fully equip all children with the skills and knowledge necessary to pursue science in their further education or as a career should they wish.



Throughout lessons, children will develop their characters such as their curiosity, independence, communication and collaborator skills.

### Our science aims are:

- To develop pupils' interest and enjoyment of science. By building on children's curiosity, the science curriculum will help to instil a positive attitude towards science in pupils.
- To deliver all the requirements of the national curriculum in relation to science and covering major scientific concepts.
- To ensure all science lessons are purposeful, accurate and imaginative.
- To ensure pupils have sufficient scientific knowledge to understand both the uses and implications of science, today and in the future. This will also give pupils an appreciation of the changing nature of scientific knowledge.
- To develop pupils' ability to pose questions, investigate these using correct techniques, accurately record their findings using appropriate scientific language and analyse their results.
- To help pupils develop the skills of prediction, hypothesising, experimentation, investigation, observation, measurement, interpretation and communication.
- To make pupils aware of and alert to links between science and other school subjects, as well as their lives more generally.

## Implement:

### How is science delivered?

- Children are taught science by a Primary Science specialist for 1 hour a week during PPA for two whole terms.
- In addition to this, class teachers deliver a STEM topic and incorporate science discretely throughout the year during weekly curriculum lessons.

### Additional science opportunities include:

- Extra-curricular science clubs offered in the spring and summer term and to cover KS1 and KS2.
- Calendar of science activities throughout the year. E.g. British Science Week, Whole school science day and inter-school science opportunities for G&T.
- Links established with Tudor Grange to provide year 6s with additional learning opportunities to stretch and challenge them. E.g. Heart dissections and fossil making.
- Investment in science play at lunchtimes – 'Playground Science' created by the PSTT. Lunchtime supervisors and playground leaders to be trained in this.

### How is science curriculum designed and planned?

- The science curriculum is based upon the 2014 Primary National Curriculum in England, which provides a broad framework and outlines the knowledge and skills taught in each Key Stage. The progression of knowledge and skills document, which incorporates Working Scientifically is used to support planning.
- Pupils are taught to understand and use correct scientific vocabulary based on the objectives and skills being taught.
- Developing skills such as questioning, observing, gathering and recording data, and drawing conclusions are key to excellent science teaching and learning at our school.
- Practical 'hands on' learning is at the core of our science teaching and learning. Our lessons will allow for a wide range of scientific enquiry, including the following:
  - Pattern seeking
  - Observation over time
  - Classifying and grouping
  - Undertaking comparative and fair testing
  - Researching using secondary sources
- High quality and tailored science videos subscribed to by Tig-Tag are used to support lessons, engage children and illustrate tricky concepts.

### Assessment:

- Formative and ongoing assessment within lessons.
- Unit tests at the end of each unit of work
- Termly curricular assessment against age related expectations. Recorded on Insight.
- Groups identified as in need of additional support identified and targeted.

## Impact:

The impact of our Science curriculum is measured through the monitoring cycle in school. This includes:

- Lesson observations
- Book monitoring
- Learning walks
- Discussions with pupils
- Data analysis

### Data (2019-2020):

Overall percentage of pupils working at the expected standard or greater depth in science was 74%

- 86% of pupils by end of Year 6
- 76% of pupils by end of Year 5
- 73% of pupils by end of Year 4.
- 73% of pupils by end of Year 3
- 76% of pupils by end of Year 2
- 60% of pupils by end of Year 1

### Whole school science

- STEM lunchtime club which was very successful and had a high take up.
- Science Ambassadors promoting science throughout the school.
- Successful whole school science day where children participated in a rotation of activities within the year group.
- Feedback from children showed a high level of enjoyment in science across all year groups.

### Community/families:

- Competition to celebrate British Science Week: 'Catch me being a scientist'. Successful outcomes with a high response rate and enjoyment expressed by many children and parents.
- Links with Tudor Grange High school gave children access to high quality science learning experiences. E.g. Heart dissections and excavating fossils in year 6.
- During lockdown, parents became highly engaged with weekly online science lessons.