Science

Statement of intent:

A high-quality science education is delivered to provide the pupils with the foundations for understanding the world. All pupils are taught essential aspects of the knowledge, skills, methods, processes and uses of science. Pupils are encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They are encouraged to understand how science can be used to explain what is occurring, predict how things will behave and analyse causes.

Statement of implementation:

Science will be taught through the thematic topics where appropriate, which delivers content in accordance with the programmes of study set out in the National Curriculum for science to ensure that pupils:

- develop scientific knowledge and conceptual understanding through specific disciplines of biology, chemistry and physics.
- develop understanding of the nature, processes and methods of science through different types of scientific enquiries that help them to answer scientific questions about the world around them.
- are equipped with the scientific knowledge required to understand the uses and implications of science, today, and for the future.

Pupils are taught to use technical terminology accurately and precisely and will build up an extended specialist vocabulary. Spoken language plays and important role in pupils' development in science, and the quality and variety of language that pupils hear and speak will be key factors in developing their scientific vocabulary and in articulating scientific concepts clearly and precisely. Children are encouraged to work collaboratively to further highlight the importance for science of sharing ideas and explanations.

Pupils learn to use a variety of approaches to answer scientific questions, such as: observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing (controlled investigations); and researching using secondary sources. Pupils learn how to develop explanations, classification systems and models. Pupils seek answers to questions through collecting, analysing and presenting data. When collecting data, children are taught to work safely and ethically to ensure that their experiments and investigations cause as little harm as possible to themselves, others, living things and the environment.

All science lessons at Ashley Hill Multi-Academy trust link, whenever appropriate to the wider curriculum to inspire, engage and challenge all pupils and to provide a rich context to explore themes.

Statement of impact:

Children enjoy and are enthusiastic about science. There is clear progression of children's work from EYFS to Year 6. All children have a wide range of scientifically rich vocabulary, suitable for their stage in development and use this to articulate their understanding of scientific ideas linked to the National Curriculum. Children demonstrate a wide range of scientific enquiry skills and older children are increasingly independent in their work through choosing their own questions, methods and strategies for recording findings to investigations. Teachers provide regular purposeful feedback to pupils that allows them to deepen their understanding of key ideas. Teacher's judgements are accurate and moderated internally by the subject leader. Children understand the impact that science has on their lives and have high aspirations to either go on to further study science as adults or use their understanding of science in their everyday lives as scientifically literate citizens.