



# Subject: Science

## Rationale

At Pleasant Street Primary a high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity. All pupils are taught essential aspects of the knowledge, methods, processes and uses of science. Through building up a body of key foundation knowledge and concepts, pupils are encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and give reasons for the outcome. The classroom is a base, with opportunities in the local and wider environment a key tool in enriching and empowering learning.

## Characteristics

The national curriculum for science aims to ensure that all pupils:

- develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics
- develop understanding of the nature, processes and methods of science through different types of science 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

At Pleasant Street Primary we aim to provide a 'hands on' approach to science to promote understanding and love of all things science.

## Curriculum Intent

We ensure that every child achieves success and enjoyment, and that all are enabled to develop their skills in science in accordance with their individual level of ability. We ensure that all aspects of science are considered when planning progressive appropriate, engaging and challenging curriculum for all our pupils. A curriculum that incorporates both scientific knowledge and working scientifically. We also ensure that children have opportunities to practise key skills, whilst developing the understanding and knowledge to apply these skills into more complex problems and investigation. For example, using magnifiers, measuring temperature, time and volume, and the use of the appropriate equipment. We aspire for our children to be confident scientific communicators, who share their scientific ideas and knowledge in a safe and nurturing environment. New vocabulary is promoted in each science topic.

## Curriculum Implementation

At Pleasant Street Primary Science is timetabled for a weekly, two hour lesson. This helps to ensure sufficient time is allocated to science and that scientific subject matter can be revisited frequently to avoid misconceptions and improve the potential for our children to retain what they have been taught. The school has planned each science topic for each year group using the National Curriculum at its heart and has devised multiple opportunities where pupils can gain first-hand experience through practical activities to enhance their scientific knowledge and love of their science education. The curriculum is enhanced by a range of resources, which are used to provide discussion opportunities in class. The curriculum is enhanced by educational visits within the locality. Vocabulary plays a vital role and feeds into all subjects at Pleasant Street Primary, we encourage our children as often as possible to explore new words and phrases to constantly improve their skills. Each topic has specific vocabulary which staff encourage pupils to learn and understand. Science subject specific characteristics (working scientifically skills) which we encourage our children to demonstrate, have been developed and shared across year groups. These characteristics are vital skills which our children need in life as well as in school during science lessons.

## Curriculum Impact

We use both formative and summative assessment information in every science lesson. We use summative assessment sheets at the end of each topic; however, formative assessment occurs during lessons for quick, useful feedback. At the beginning of each topic, we have designed cover sheets for books. These cover sheets highlight curriculum targets, working scientifically skills and allows the teacher immediate feedback from a lesson. This means that skills in science are progressive and build year on year. This helps us provide the best possible support for all of our pupils. Assessment information is collected at the end of each topic, and analysed as part of our monitoring cycle. This process provides an accurate and comprehensive understanding of the quality of education in science. A comprehensive monitoring cycle is developed at the beginning of each half term. Monitoring in science includes: book scrutiny, standardisation meetings across the local education authority, learning walks and pupil and staff voice. This information is used to ascertain the quality of teaching and provision of this subject, and to inform future planning.