



What does Science look like at Badsley Primary?

Badsley Primary Schools understands the need for all pupils, particularly disadvantaged pupils and including pupils with SEND, to develop their Scientific ability as an essential component of all subjects and as a subject in its own right. Having a good understanding of Scientific knowledge and conceptual understanding not only helps support pupils in Science but also across all curriculum areas.

Intent

At Badsley Primary School we believe that a high quality Science curriculum should be ambitious and designed to give all pupils, particularly disadvantaged pupils and including pupils with SEND, the knowledge and cultural capital they need to succeed in life. We support children to understand the world with increasing independence through the specific disciplines of biology, chemistry and physics and learn how Science has changed (and continues to change) our lives and is vital to the world's future prosperity. Through coherently planned and sequenced lessons, we encourage pupils to make sense of and explore the world around them, acquiring a breadth of scientific skills which are reinforced and revisited throughout their primary years. The staff at Badsley Primary School ensure that all children are exposed to high quality teaching and learning experiences, which allow children to explore their outdoor environment and locality, thus developing their scientific enquiry and investigative skills. A rigorous approach is taken when choosing high quality, age appropriate texts to support the learning. Quality first teaching ensures that specialist vocabulary is taught and developed along with encouraging effective questioning to communicate ideas.

Implementation

To ensure high standards of teaching and learning in science, teachers have good subject knowledge to implement a curriculum that is progressive throughout the whole school. Ensuring that full coverage of The National Curriculum and Understanding of the World in the Early Years Foundation Stage, teachers present the subject matter clearly promoting appropriate discussion whilst systematically checking pupils understanding. Teachers identify misconceptions and provide clear direct feedback to create an environment that focuses on pupils. Using an immersive

curriculum, Science is linked to class topics so that children can make intellectual links throughout the curriculum.

We ensure that all children are provided with rich learning experiences that aim to:

- Prepare our children for life in an increasingly scientific and technological world today and in the future.
- Help our children acquire a growing understanding of the nature, processes and methods of scientific ideas.
- Help develop and extend our children's scientific concept of their world.
- Build on our children's natural curiosity and developing a scientific approach to problems.
- Encouraging open-mindedness, self-assessment, perseverance and developing the skills of 3 investigation – including: observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, explaining and evaluating.
- Develop the use of scientific language, recording and techniques.
- Develop the use of computing in investigating and recording.
- Make intellectual links between science and other subjects.

At Badsley we aspire to promote children's independence and for all children to take responsibility in their own learning, therefore we have implemented teacher assessment sheets, which are used as a working document to track their achievements and progress throughout a topic. The assessment sheets follow the children through their primary years so that any gaps can be addressed to ensure all scientific concepts are embedded and knowledge is used fluently. We have also developed scientific pre and post assessment tasks, which are completed both at the beginning (pre-learning task) and end (post-learning task) which helps children assess their own learning. These tasks also enable the children to articulate scientific concepts clearly and precisely, assisting them in making their thinking clear, both to themselves and others.

Impact

The impact and measure of this is to ensure children not only acquire the appropriate age related knowledge linked to the science curriculum, but also skills which equip them to progress from their starting points, and within their everyday lives. High expectations in Science lead to pupils work being of good quality. We strive to ensure that pupils with SEND achieve the best possible outcomes.

All children will have:

- A wider variety of skills linked to both scientific knowledge and understanding, and scientific enquiry/investigative skills.
- A richer vocabulary which will enable to articulate their understanding of taught concepts.
- High aspirations, which will see them through to further study, work and a successful adult life

Our Ultimate End Goal: What will our scientists be able to do when they leave Badsley Primary?

From EYFS to Year 6, Badsley primary school scientists will build up a body of key foundational scientific knowledge and concepts. Children are encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. We ensure that the children have the skills they need to become successful, confident and inquisitive learners, enjoying the process of exploring values and ideas through science. They are able to use accurate technical terminology and articulate scientific theories, clearly and precisely whilst linking these exciting learning experiences to wider opportunities and to other subjects. We involve outside agencies/other settings and engage in STEM based activities, showing science in 'real world' and work based scenarios to further enthuse our pupils' love of learning in science. This will enable them to develop an understanding that scientific ideas develop and change over time and how it has the power to change our lives and futures.

Children will leave Badsley Primary school understanding the world around them and how their actions and choices can contribute to make the world a better place.