Northbrook Primary Academy



Science Policy

Date of policy: September 2021

Review Date: September 2022

At Northbrook Primary Academy, our children’s happiness, well-being and achievements are at the heart of everything we do. We provide a nurturing environment for each child, where they feel safe and supported to achieve their full potential.

Our logo represents the nurture and opportunities for growth we provide for all of the children in our care. The compass and brook not only refer to our name, they also represent the educational journey each child will embark on from the moment they join us here at Northbrook.

At Northbrook we recognise that every child is unique and all our staff strive to ensure that every child is given the opportunity to work to the best of their ability. We endeavour to develop the whole child and prepare each one academically, emotionally and socially to live and succeed in an ever-changing world. We provide our children with a wide range of experiences to ensure every child can develop a love of learning, enjoy being in school and have a chance to shine. We aspire to ensure that our children leave us with the best possible foundations upon which they can build throughout their lives. We are incredibly proud of our children and want our children to feel proud of themselves.

We take pride in the family atmosphere that we have developed and value the partnerships we have with parents, carers and the local community. It is important to us all at Northbrook that parents feel part of our school as well and always feel welcome.

**Our values are at the HEART of our school**

**Happiness**

**Empathy**

**Aspiration**

**Respect**

**Teamwork**

At Northbrook Primary Academy we recognise how science impacts every aspect of daily life, and without science humankind would not have made progress throughout history. As one of the core subjects taught at primary level, we give the teaching and learning of science the prominence it deserves. Learning science is concerned with increasing pupils’ knowledge of our world, and with developing skills associated with science as a process of enquiry. Our science curriculum develops the natural curiosity of each child no matter their demographic, encourages them to have respect for living organisms, and instil in pupils the importance of caring for the natural environment.

**Aims:**

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 Northbrook Primary Academy, we provide a high-quality science education that provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Through their Science curriculum, children’s happiness is at heart, as they are engaged, inspired and challenged, encouraged to experiment, invent and be ambitious with their thinking. They will be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes. While participating in science lessons children will demonstrate the importance of respect, empathy and teamwork.

**Implementation:**

Teachers create a positive attitude to science learning within their classrooms and reinforce an expectation that all children can achieve high standards in science. Teaching is set out thus:

* Science will be taught as set out by the year group requirements of the National Curriculum. This is a strategy to enable the accumulation of knowledge and allows progress in repeated topics through the years.
* Pupils will concentrate on one science skill per term. Term 1 will be dedicated to planning investigations, Term 2 to results gathering and analysis, and Term 3 will be spent evaluating practical work. Although each skill is related and there are links between them, there is minimum crossover as they are taught, so each becomes firmly embedded.
* Through our planning, we involve problem solving opportunities, allowing children to find out for themselves how to answer questions in a variety of practical means. Children are encouraged to ask their own questions and be given appropriate equipment to use their scientific skills to discover the answers.
* Engaging lessons are created with each lesson having both practical and knowledge elements. Teachers use precise questioning in class to test conceptual knowledge and skills and children are regularly assessed to identify those children with gaps in learning, so that all children keep up.
* We build upon the learning and skill development of previous years. As the children’s knowledge and understanding increases, and they become more proficient in selecting and using scientific equipment, collating and interpreting results, they become increasingly confident in their growing ability to come to conclusions based on real evidence.
* Working Scientifically skills are explicit in lessons to ensure these skills are being developed throughout the children’s school career and new vocabulary and challenging concepts are introduced through direct teaching. This is developed through the years, in-keeping with the theme of the lesson.
* Teachers demonstrate how to use scientific equipment, and the various Working Scientifically skills in order to embed scientific understanding. Teachers find opportunities to develop children’s understanding of their surroundings by accessing outdoor learning and workshops with experts.
* All classes will follow the scheme of work called ‘PZAZ’

**Assessment:**

* Each child will complete an assessment at the end of each unit.