

**Our Vision:**

Through a positive caring environment, we provide the opportunity for every child to reach their full potential. We embrace British and school values and ensure all children are ready for their next steps.

At Nelson Academy, our mission is to create an outstanding educational environment where everybody is valued. Our key drivers are:

- Raising aspirations
- Widened opportunities for developing learning
- The pursuit of excellence through risk taking
- 'Achieving Through Learning'
- 'Transforming lives, transforming communities'

**Aims and Objectives:**

Science is a fundamental part of children's learning and key understanding of scientific concepts that is developed in their primary education gives children the base upon which to develop in secondary school and beyond. Science has the power to develop children's curiosity and exploration skills as well as their reasoning and explanation skills. Through hypothesising and asking questions about the world around them, children can develop their scientific minds.

The objectives of teaching science in Nelson Academy are to:

- Prepare children for their future world as science and technology continues to advance.
- Help develop children's curiosity and a scientific approach to problems.
- Provide opportunities for children to ask scientific questions and answer them using a wide range of enquiry types.
- Encouraging children to develop key scientific skills when investigating – hypothesising, observing, measuring, predicting, experimenting, communicating, interpreting, explaining and evaluating.
- Develop children's use of scientific terminology.
- Develop children's understanding of the natural world around them.
- Make links between science and other subjects within the curriculum such as maths and history.

**Teaching and Learning Style**



At Nelson Academy, we ensure that the teaching of science is engaging and exciting for children. Through hands on, practical experiences, balanced with rich scientific vocabulary, children are able to become immersed in their learning. Opportunities are given to children to ask and answer their own scientific questions and to take the lead in their learning through investigations and experiments which allow them to be scientists. Lessons are engaging, inspiring and extend beyond the classroom.

To break the mould of the stereotypical 'scientist' as a man in a lab coat, teaching promotes a variety of different scientists of all genders, that work in and outside of the lab. This encourages children to aspire to follow a career in science, with no discrimination or exclusion.

### **Science Curriculum Planning:**

Nelson Academy uses the Core Knowledge Curriculum as the basis of curriculum planning. This ensures that across the year groups, a progression within science is seen as well as a balance between the sciences. In addition to this, children are exposed to a variety of scientists related to their topics to inspire and promote science as a career path. As children move through the school, their understanding of each area will develop as they will be challenged further. We also aim for them to become more independent scientists, moving gradually towards being able to ask and answer their own scientific questions.

### **Early Years Foundation Stage:**

In Reception, teaching follows the Early Years Foundation Framework. Under this framework, children develop their scientific skills through exploratory play and activities. Under the umbrella of 'Understanding the World', children work towards their ELGs (Early Learning Goals) in three key areas 'The World', 'Technology' and 'People and Communities'. Through both planned and child-led activities, children can begin to develop the key skills such as experimenting, testing, developing hypotheses and ideas as well as evaluating.

### **Assessment:**

Children demonstrate their ability in science in a variety of different ways. Teachers will assess children's work in science by making informal judgements as they observe them during lessons. On completion of a piece of work, the teacher assesses the work and gives oral or written feedback as necessary to inform future progress. Older pupils are encouraged to make judgements about how they can improve their own work. At the end of a unit of work, the teacher makes a summary judgement about the work of each pupil in relation to the National Curriculum, and records these via Pupil Asset each term.

### **Resources:**

We have a resource cupboard for scientific learning which covers the key science topics learnt across the curriculum. This supports practical and engaging lessons.

### **The Great Science Share:**



Nelson Academy takes part in the Great Science Share, posing their own scientific questions, thinking of ways to investigate them and then designing and carrying out their own investigations. Their findings are shared both in school and with the wider school community. This whole school celebration of scientific enquiry encourages children to think of their own scientific questions and then gives them time to carry out their enquiries, all while celebrating scientific thinking.