

## **The Beacon Centre Primary** **Science Curriculum Statement of Intent**

Our core purpose at The Beacon Centre for science is to deliver an engaging and challenging curriculum so that pupils develop a scientific perspective of the world around them and can make informed decisions. We aim to prepare our pupils effectively for the future to make them confident, responsible members of the school and wider community and to set them on the path to success for their future education. Following the National Curriculum as our progression model, we provide children with opportunities to better understand the world around them.

Our KS1 scheme of work includes a wide range of scientific topics such as use of every day materials, seasonal changes and living things and their habitats' - these are based on the national curriculum of England. Our KS2 topics include a wide range of scientific topics such as Earth and space, human body systems, reversible and irreversible changes - all students follow a balanced curriculum that is also based on the national curriculum. As well as developing our students' knowledge and understanding of scientific theory, our curriculum has an integrated 'working scientifically' component and a clear focus on scientific literacy and communication that seeks to develop students' confidence in articulating their scientific ideas. Across both key stages all curriculum topics taught in science are linked to STEM learning – Science, Technology, English and Mathematics.

Our science lessons harness our SEMH ethos and seek to encourage enquiry, tolerance and diversity. We capitalise on the wider learning teaching science brings including; Scientific literacy and communication covering a variety of skills, including taking and making notes, summarising information, presenting ideas, title writing, persuasive writing and arguments. It also covers the 'spoken language' component of the national curriculum. Numeracy is also promoted through data gathering/analysis and graph drawing. We encourage students to question data presented to them by identifying trends and anomalies. This provides opportunities for cross-curricular subjects to be taught fluently, developing prior knowledge to practice fundamental skills as well as promoting high standards and expectations in science enquiries.

We try to make learning relevant to the local area. For example, when studying the animals and their habitats we utilise our coast line to conduct practical experiments on sea creatures when rock pooling, or visit local farms and nature reserves. When we study the use of different materials we use the trips to the glass factory, while using local buildings and structures such as the Tyne Bridge for inspiration when conducting strength tests. In terms of adaptation we think about how rural communities can work more locally rather than commuting and how we could prevent flooding on the River Tyne or create some technological solutions to some of the environmental issues facing young people in the future.

We use a range of formative and summative assessment methods to monitor student progress. Each individual taught unit is assessed to allow teaching staff to offer effective and personalised intervention and ensure all students make the progress we feel they are capable of. This is recorded in books to ensure all topics are taught in depth and provide a visual learning tool to show pupils their own progress and encourage resilience in learning.