Curriculum statement

Intent

Our science curriculum has been specifically tailored to meet the unique context of our schools and is at least as ambitious as the national curriculum. It is designed to be broad and balanced, providing all pupils with the opportunity to master their learning and deepen their knowledge, making sense and giving purpose as to why we learn about science.

At Broughton Jewish we recognise the importance of Science in every aspect in daily life, as we believe that Science helps to develop pupil's curiosity in the natural world.

We aim to promote and equip children with the knowledge, skills and understanding of the world and their place in it. We encourage respect for living organisms and the physical environment and provide opportunities for critical evaluation of evidence.

The key strands of the subject that pupils will learn through the school's age-related expectations

We aim to build high levels of competence in scientific knowledge and conceptual understanding through working scientifically in: Biology, Chemistry & Physics

At Broughton Jewish we intend that the Science curriculum will:-

- Encourage and support children to be independent, inquisitive learners
- Be embedded within some STEM projects at school that link to Jewish festivals
- Inspire children to seek employment in the Sciences or STEM
- Develop inquisitive children who are keen to find out how and why things work
- Designed to be relevant to the community which our school serves and preparing them for the future
- Equip our children with the knowledge and skills they need to be successful in their next stage of education and have an overview of the Sciences
- Develop children's excitement and curiosity about natural phenomena
- Develop their resilience to retest or reinvestigate and make careful observations
- Extend their understanding of scientific vocabulary
- Be designed to enable our parents to be involved in the education of their children
- Through discussion children will be taught to probe and remedy misconceptions

Implementation

At Broughton Jewish we teach the Early Years curriculum of Understand the World and the National Curriculum for Science in Years 1-6. Our children benefit from a curriculum which is age-appropriate and designed to enable them to make good progression and to master the age-related expectations for their year group. Following our Science progression, Enhancing Science and PiXL are our main drivers along with other resources used to teach and deliver the curriculum with links to other subjects as well as some Jewish festivals..

Our curriculum is led by a subject leader as part of STEM curriculum team who help monitor, evaluate and review the provision and standards of Science.

Vocabulary plays a part in our delivery to ensure all children have a wider working knowledge of Science and they are taught to read and spell scientific terminology. Science encourages the children to adapt a variety of skills from Maths, RE, D&T and IT which helps to teach our cross curricular STEM projects and Science curriculum.

Some of our teaching staff have attended the National STEM centre in York for high quality Science specific training which is fed to all staff in regular staff development sessions. We share best practice through our monitoring and coaching cycle.
Informal formative assessment is used to inform and guide our teaching so that every child makes maximum progress in Science and they have a broad understanding of the way things work.

Assessment is done at the end of a unit by a variety of ways including quizzes, knowledge organisers, questions etc and this information is collated to be passed on through school identifying areas of challenge for specific cohorts.

Impact

A high quality of scientific education aims to develop a range of investigation and problem-solving skills that are transferable to other curriculum areas, particularly Geography, Mathematics and English. The children learn through varied and first hand experiences of the world around them.
Children will:

- Acquire and effectively use new vocabulary.
- Build skills that enable them to collect, analyse and interpret a range of data gathered through practical investigation.
- Interpret a range of sources of scientific information, including reports, theories, diagrams, images and investigations.
- Develop a respect for the materials and equipment they handle with regard to their own, and other children's safety.
- Understand the importance of Science in the world we live
- Are engaged, active, enthusiastic learners
- Make very good progress in all Science so that they meet or exceed age related expectations and are well prepared for the next stage of their education
- Enjoy their learning and can talk confidently about Sciences
- Celebrate their learning with a range of audiences
- Inspire children to actively seek career paths in this area
- Embed a 'working scientifically' mindset which encourages children to ask and investigate life's 'big questions'

We seek to inspire in children a curiosity and fascination about the world which will remain with them for the rest of their lives; to promote children's interest and develop an enthusiasm and enjoyment of scientific learning and discovery. Children have the understanding that science has changed our lives and that it is vital to the world's future prosperity. Children are introduced to professions that use Science through careers day in Year 6 and assemblies throughout school during each academic year.