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**Science at Wibsey Primary School**

*‘Nothing in life is to be feared. It is only to be understood.’*

Marie Curie

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| **What our children learn in Science (Intent)** |
| At Wibsey Primary School, the **intent**of our science curriculumis to develop children’s curiosity, enthusiasm and interest in science. Our science curriculum is designed to develop our children as Scientists and equip them with the knowledge, skills and core learning experiences so that they are able to make sense of the world in which they live and which prepares them for life in an increasingly scientific and technological world. W**e deliver a science curriculum which develops enquiry-based learning and results in the acquisition of knowledge.**Our science curriculum enables children to gain a coherent knowledge and understanding of the three main strands of science; biology, chemistry and physics. Scientific enquiry skills are embedded and interwoven throughout the scientific topics that children study. Some topics are revisited in later years which allows children to build upon prior knowledge and deepen their scientific knowledge and understanding. In science lessons, children are encouraged to use a range of skills including questioning, planning, observing, testing and evaluating. It is our intent that children leave Wibsey Primary School with a well-rounded education in science so that they are fluent in the fundamentals of Science and have the ability to work scientifically and excel in future learning. We are committed to developing our pupils as scientists; children develop disciplinary knowledge as they move across school. Within each year group children undertake a variety of scientific enquiries: observation over time, pattern seeking, comparative and fair testing, problem solving and identifying, grouping and classifying. Through carefully chosen studies of significant scientists children learn the contributions to the development of scientific knowledge that individuals have made, and understand that scientific knowledge and understanding has progressed over time. Through their learning in science we want our pupils to develop an appreciation of how important science is in our lives. Learning in Science at Wibsey encourages children to see Science as being relevant to their world, applicable to everyday life and ultimately to the world of employment. To this end we aim to provide a high-quality, interrelated and creative experience which is one that develops the children’s ability to question and think scientifically and apply skills they have developed.  |
| **How our children learn in Science (Implementation)** |
| At Wibsey Primary School, Science is taught as an integral part of the ‘Wibsey Cumulative Curriculum’ with appropriate subject knowledge, skills and understanding as set out in the National Curriculum Science Programmes of Study. We have a coherently planned and sequenced curriculum which has been carefully designed with the need of every child at the centre of what we do. Sequential teaching of substantive knowledge provides opportunities for children to build upon prior learning and embed key scientific concepts. The knowledge and skills that children will develop throughout each science unit are mapped out across each year group and across the school to ensure progression. Children begin in the Early Years by exploring and making observations about the world around them. In Key Stage One, children begin to understand basic scientific principles and carry out simple investigations using the five types of scientific enquiry. In Key Stage Two, children learn how to develop a scientific approach to testing ideas, finding evidence and investigating scientific phenomena. As they progress across school, children become more proficient in selecting, using scientific equipment, collating and interpreting results, and they become increasingly confident in their growing ability to reach conclusions based on real evidence. We enrich our science curriculum by providing additional opportunities for children to enhance their learning experiences through whole-school events such as ‘Science Week’ and educational visits linked to the science curriculum. School is working towards providing all children with a knowledge organiser at the start of each science unit. This will support learning and the retention of knowledge, as well as the acquisition of the key scientific vocabulary that is relevant to the unit being taught. This is not used as part of assessment, but to support children with their acquisition of knowledge and is used as a point of reference throughout the unit. Key scientific vocabulary is progressively taught throughout lessons, enabling children to become familiar with, and internalise, subject specific vocabulary which they, in turn, can use in context. Working walls are a key feature of the learning journey and show how knowledge, skills and vocabulary is built up over the course of a unit. |
| **What difference does the Science curriculum make to our children? (Impact)** |
| The impact of high quality first teaching of our Science curriculum can be seen in different ways. Our curriculum is aspirational and engaging and we see children who are engaged in their learning in science, have an inquisitive mind and want to find out more about the world around them. They enjoy science, and in particular they enjoy the range of scientific enquiries and practical work that they undertake. Children are able to speak with increasing confidence about science and make links with, and better understand, the real world. They are provided with the foundations on which they can build on their existing scientific knowledge and skills, ensuring that they are prepared for the next stage of their education. Our Science curriculum has clearly defined end points which map out the progressive steps children make in their substantive knowledge and understanding and in their disciplinary knowledge as they move across school. Differentiated work is set to meet learner’s needs and the curriculum has been designed so that pupils with varied abilities and SEND can succeed, thrive and enjoy their learning in Science. Assessment and monitoring will show standards in Science will be high and match standards in other subjects.Children will understand, through the study of significant scientists, that science has changed our lives and that it is vital to the world’s future prosperity. |