

The Science Curriculum

*'A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science. Through building up a body of key foundational knowledge and concepts, pupils should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes'. **National Curriculum Programme of Study, 2014.***

Science is an important subject which is studied throughout the school and we want our children to leave Pontesbury with an enthusiasm and enjoyment for science by recognising its place in the past, present and future.

- Science is taught each term so that we cover the Science National Curriculum. Each year group has science units of study that will be covered in depth.
- In the Early Years Foundation Stage, science forms part of the work covering 'knowledge and understanding of the world'. In this area of learning children are developing the skills and understanding that help them make sense of the world. They do this through exploration, observation, problem solving, prediction, critical thinking, decision making and discussion.
- These early experiences and skills are developed as children move through school where the emphasis continues to be on developing scientific thinking through practical and investigative work.
- Our curriculum recognises the importance of a developing knowledge of scientific concepts and the children will develop these skills through engaging lessons, including both practical investigations and explorations. It is with these disciplines that the children will predict, analyse, explain and refine.
- Using a Progression Grid and Knowledge Organiser for each unit of work, teachers plan and deliver well-sequenced and focused lessons that build upon prior knowledge and key concepts/components within and between each unit.
- Children are encouraged to be independent and collaborative scientific investigators by their involvement in exciting practical investigations.
- Throughout the unit of work the children will regularly review their scientific knowledge through short quizzes followed by an End of unit test which will allow the class teacher to monitor and help inform future planning of the unit.

Further opportunities for Science include:

- A successful working partnership with Mary Webb School and Science College to support children's transition to KS3 through STEAM projects and 'Junior Scientists' for children in Year 6.