

Subject and Year Team Curriculum Statements

Subject/Year Team: Science
Intent
<p>What are our curriculum objectives? What do we want pupils to be able to know and do by the time they leave this school/this year group?</p> <p>A high-quality science education provides the foundations for understanding the world through biology, chemistry and physics. Science has changed our lives and is vital to the moving the world forward and all pupils should be taught essential features of the knowledge, methods, processes and uses of science. Through building up a body of key concepts, pupils should be able to develop a sense of excitement and curiosity about the world around them. They should be encouraged to understand how science can be used to explain what is occurring, predict what will happen, and analyse causes.</p>
<p>How does the curriculum plan set out the sequence and structure of how we will implement it? This is to be presented as a curriculum map.</p> <p>Each year follows the national curriculum objectives using the Cornerstones Scheme, which allows children to build on their previous knowledge. Children can develop skills with working scientifically as they move through the school.</p>
<p>How does the curriculum reflect British Values, PSHE and SMSC?</p> <p>Science teaching offers children many opportunities to examine some of the important questions in life, for example, the evolution of living things and how the world was created. Through many of the processes that affect living things, children develop a sense of awe and wonder regarding the nature of our world. Science raises many social and moral questions. We give them the chance to reflect on the way people care for the planet and how science can contribute to the way we manage the Earth's resources. Science teaches children about the reasons why people are different and, by developing the children's knowledge and understanding of physical and environmental factors, it promotes respect for other people.</p>
<p>How does the curriculum cater for the different groups in our school – SEN, EAL, Gender, High Attainers, Disadvantaged etc? How do we make sure these groups of pupils have access to the curriculum?</p> <p>We teach science to all children, whatever their ability, in accordance with the school curriculum policy of providing a broad and balanced education to all children. Teachers provide learning opportunities matched to the needs of children with learning difficulties. Children are challenged within science within their understanding so that they learn something in each lesson.</p>
<p>To what extent have we made the objectives clear and how will everyone know them?</p> <p>The curriculum map identifies the link between learning throughout the school. Lessons are planned in year groups using Cornerstones to ensure that the level of challenge is appropriate for their children. The curriculum team ensures that the lessons meet objectives through meetings to review planning and assessment sessions to monitor learning and progress.</p>
<p>Implementation – how do we deliver our curriculum</p>
<p>How does the current curriculum match our intention (the points identified above)?</p> <p>The curriculum has lessons that challenge the skills of children and builds on their prior knowledge. Children are given opportunities to develop their scientific understanding and enhance their practical skills.</p>
<p>How do the subjects/topics we are teaching link together? What cross curricular links are there (in particular the development of reading, writing and maths)?</p> <p>The science taught at BVS is linked together and so children can build on their knowledge. Children present their work in a variety of ways, including presentations and through formal investigation write-ups. Children use their mathematical skills in many ways during investigations to find patterns in the world.</p>
<p>How are we encouraging progression as pupils move through the school?</p> <p>Objectives are taken from the National Curriculum, where teachers use their knowledge of the children to create lessons which will challenge their understanding. Lessons progress through the school to continue to enhance their understanding.</p>
<p>How do we adapt our curriculum for the different ability groups? How are the pupils grouped?</p> <p>Lessons are planned to appropriately test the knowledge of children based on their previous knowledge. Teachers will provide the children with a range of resources to aid their learning.</p>
<p>Are subjects staffed appropriately? Are staff trained? Do the subjects have adequate time and other resources?</p> <p>All staff are qualified to teach science and have the opportunity to enhance the CPD on courses. Staff meetings are used to ensure that staff are confident in teaching the subject.</p>
<p>Impact – what difference is our curriculum making to pupils?</p>
<p>How well are children learning the content outlined in the curriculum? How do we know – (what data do we use)?</p>

All objectives are recorded through statements in Insight. Staff use these statements to provide them with a half termly assessment.

How well are pupils prepared for the next stage of education? Where do they go to? How do we know?

Children develop their investigation skills throughout their time at BVS and leave with the knowledge of how to complete investigation from start to finish, including evaluation. The format used allows children to build on their knowledge and allows fluency through the school.

How do we know our curriculum is having an effect across all pupils, including the different identified groups?

Children need to verbalise and record how they arrive at decisions. Through clearly explaining their decisions, this shows that they have gained the knowledge. Children can still evaluate their knowledge and explain how they could have made a more appropriate test.

How well are the key subject knowledge and skills consolidated before moving onto the next topic? How do we know?

Teachers assess understanding and make professional decisions in line with Insight. Teachers will review any concepts that have been misunderstood if needed.

How well developed are pupils' learning habits and learning skills? How do we know?

Practical activities provide the children with a range of contexts allowing safe exploration of the world without the need to master facts and theories. By taking part in practical activities children are given the opportunity to develop fine motor skills and co-ordination. Knowledge and skills can be developed in small steps through practical work. Sequencing of written work becomes easier after practical experiences

How do we use the evidence of pupils' learning to feed into our planning and adaptation of the curriculum?

Planning is continually adapted to meet the changing issues – moral, social and others that children face in the 21st century. Teachers adapt and refine planning through considering changes in the world.