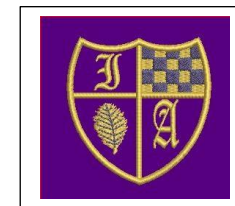


Science



Intent, Implementation and Impact

Intent	Implementation	Impact
<p>At Ivingswood Academy, we aim to inspire all children to achieve their best in Science. Through a range of experiences, they will cultivate a love of science, whilst developing their questioning, investigating and evaluation skills.</p> <p>Our Science curriculum is sequential and progressive throughout the whole school and covers the knowledge, skills and vocabulary stated in the National Curriculum. The vocabulary, skills and knowledge acquired will equip the children for the future.</p> <p>Through our high quality teaching we aim to ensure that all pupils:</p> <ul style="list-style-type: none"> • develop scientific knowledge and conceptual understanding through the programmes of study for each year group • develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific 	<p>Science is taught weekly by the class teacher.</p> <p>Science topics are taught within each year group in accordance with the National Curriculum.</p> <ul style="list-style-type: none"> • Topics are blocked to allow children to focus on developing their knowledge and skills, studying each topic in depth. These topics are shown on our Learning Journey, where links to other areas of the curriculum and to other year groups can be seen. • Every year group will build upon the learning from prior year groups therefore developing depth of understanding and progression of skills, knowledge and vocabulary through the taught sequence of lessons. • To support teaching, teachers access a range of resources and planning from the 'Kent Scheme of Work for Primary Science'. • At the start of each topic, children will review previous learning and will have the opportunity to share what they already know about a current topic, using the 'What I Already Know' activity. • Knowledge Organisers are clearly displayed in class and given to the children to put in their Science books; these enable children to learn and retain the important, useful and powerful vocabulary and knowledge contained within each unit. This is not used as part of an assessment, but to support children with their acquisition of knowledge and are used as a reference document. • Teachers promote enjoyment and foster interest in the scientific disciplines; Biology, Chemistry and Physics. Where possible, lessons will be practical, with opportunities for precise questioning in class to test conceptual knowledge and skills. • Children explore, question, predict, plan, carry out investigations and observations as well as conclude their findings. • Children present their findings and learning using science specific language, observations and diagrams. • In order to support children in their ability to 'know more and remember more' there are regular opportunities to review the learning taken place in previous topics as well as previous lessons. • Teachers use assessment for learning in each lesson to ensure misconceptions are highlighted and addressed. • Effective modelling by teachers ensures that children are able to achieve their learning intention, with misconceptions addressed within it. • Through using a range of assessment tools, differentiation is facilitated by teachers, to ensure that each pupil can access the Science curriculum. • Attainment will be assessed each half term through related topic assessment task and the use of the 'What I Know Now' activity. • Through enrichment days, such as 'science week', we promote the profile of Science and allow time for the children to freely explore scientific topics. 	<p>The successful approach to the teaching of science at Ivingswood Academy will result in a fun, engaging, high-quality science education, that provides children with the foundations for understanding the world that they can take with them once they complete their primary education. Our Year 6 children will leave the school ready to study science at secondary level and beyond.</p> <p>Ivingswood pupils will be enthusiastic Science learners and understand that science has changed our lives and that it is vital to the world's future prosperity, learning the possibilities for careers in science and that they have the capability to follow those paths.</p> <p>The children will make good progress over time, across key stages, relative to their individual starting point and their progression of skills. They will retain knowledge that is pertinent to Science with a real life context and be able to question ideas and reflect on knowledge. Children will work collaboratively and practically to investigate and experiment, be able to explain the process they have</p>

<p>questions about the world around them</p> <ul style="list-style-type: none"> • are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future • build on Working Scientifically skills throughout school so that children can apply their knowledge of science when using equipment, conducting experiments and investigation, building arguments and explaining concepts confidently, being familiar with scientific terminology and, most importantly, to continue to ask questions and be curious about their surroundings. 	<ul style="list-style-type: none"> • Effective use of education visits and visitors are planned, to enrich and enhance the pupil's learning experiences within the Science curriculum. • Effective CPD and standardisation opportunities are available to staff to ensure high levels of confidence and knowledge are maintained. <p>EYFS</p> <p>The Early Years Foundation Stage Curriculum supports children's understanding of Science through the planning and teaching of 'Understanding the World.' Children find out about objects, materials and living things using all of their senses looking at similarities, differences, patterns and change. Both the environment and skilled practitioners foster curiosity and encourage explorative play, children are motivated to ask questions about why things happen and how things work. Our children are encouraged to use their natural environment around them to explore. Children enjoy spending time outdoors exploring mini-beasts and their habitats, observing the changing seasons, plants and animals. Children regularly participate in cookery and baking sessions which allows them to experience changes in state as ingredients are mixed, heated and cooled.</p> <p>Further details on progression for each year group can be found on the 'Progression of Skills in Science' document and the year group Knowledge Organisers.</p>	<p>taken and be able to reason scientifically.</p> <p>Pupil voice is used to further develop the Science curriculum, through questioning of pupils' views and attitudes towards Science, to assess the children's enjoyment of science, and to motivate learners</p>
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