St. Mary's Catholic Primary Curriculum Statement
Science

Intent	Implementation	Impact
At St Mary's Catholic Primary School, we recognise the importance of Science in every aspect of daily life. As one of the core subjects taught in Primary Schools, we give the teaching and learning of Science the prominence it requires It is our vision to distil a lifelong love of science within our pupils. Science has changed our lives and is vital to the world's future prosperity. We work hard to provide a rich and varied curriculum to challenge and meet the needs of our children. We believe all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science. From EYFS up to KS2 our pupils will build up a body of key foundational knowledge and concepts, pupils are encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. In conjunction with the aims of the National Curriculum, our Science teaching offers opportunities for children to: • develop scientific knowledge and conceptual understanding through the specific disciplines of Biology, Chemistry and Physics; • develop understanding of the nature, processes	Teachers create a positive attitude to science learning within their classrooms and reinforce an expectation that all children are capable of achieving high standards in science. Our whole school approach to the teaching and learning of science involves the following; • Science will be taught in planned and arranged topic blocks by the class teacher. This is a strategy to enable the achievement of a greater depth of knowledge and progression of skills. • Through our planning, we involve problem solving opportunities that allow children to find out for themselves. Each topic will begin with a Big Question. Children are encouraged to ask their own questions and be given opportunities to use their scientific skills and research to discover the answers. This curiosity is celebrated within the classroom. • Planning involves teachers creating engaging lessons, often involving high-quality resources to aid understanding of conceptual knowledge. • Teachers use precise questioning in class to test conceptual knowledge and skills, and assess children regularly to identify those children with gaps in learning, so that all children keep up. • We build upon the learning and skill development of the previous years. As the children's knowledge and understanding increases, and they become more proficient in selecting, using scientific equipment, collating	The successful approach at St. Mary's Catholic Primary results in a fun, engaging, high-quality science education, that provides children with the foundations and knowledge for understanding the world. Our engagement with the local environment ensures that children learn through varied and first hand experiences of the world around them. Frequent, continuous and progressive learning outside the classroom is embedded throughout the science curriculum. Through various workshops, trips and interactions with experts and local charities, children have the understanding that science has changed our lives and that it is vital to the world's future prosperity. Children learn the possibilities for careers in science, as a result of our community links and connection with national agencies including the STEM association. They learn from and work with professionals, ensuring access to positive role models within the field of science from the immediate and wider local community. From this exposure to a range of different scientists from various backgrounds, all children feel they are scientists and capable of achieving. Children at St. Mary's overwhelmingly enjoy science and this results in motivated learners with sound scientific understanding. Pupil voice is used to further develop the Science curriculum, through questioning of pupil's views and attitudes to Science to support the

and methods of Science through different types of science enquiries that help them to answer scientific questions about the world around them; • be equipped with the scientific knowledge required to understand the uses and implications of Science, today and for the future. • develop the essential scientific enquiry skills to deepen their scientific knowledge. • Use a range of methods to communicate their scientific information and present it in a systematic, scientific manner, including I.C.T., diagrams, graphs and charts. • Develop a respect for the materials and equipment they handle with regard to their own, and other children's safety. • Develop an enthusiasm and enjoyment of scientific learning and discovery. The National Curriculum will provide a structure and skill development for the science curriculum being taught throughout the school, which is now linked, where possible to the Creative Curriculum topics to provide a creative scheme of work, which reflects a balanced programme of study. Children have weekly lessons in Science throughout Key Stage 1 and 2, using various programmes of study and resources. In Early years, science is taught through the children learning about the world around them in their learning through play. Additional opportunities are provided in Science, such as visits from STEM Ambassadors, Newcastle University Outreach Workshops, Science Week in school with workshops provided by Green Shift Science Education and	and interpreting results, they become increasingly confident in their growing ability to come to conclusions based on real evidence. • Working Scientifically skills are embedded into lessons to ensure these skills are being developed throughout the children's school career and new vocabulary and challenging concepts are introduced through direct teaching. This is developed through the years, in-keeping with the topics. • Teachers demonstrate how to use scientific equipment, and the various Working Scientifically skills in order to embed scientific understanding. Teachers find opportunities to develop children's understanding of their surroundings by accessing outdoor learning and workshops with experts. • Children are offered a wide range of extra-curricular activities, visits, trips and visitors to complement and broaden the curriculum. These are purposeful and link with the knowledge being taught in class. • Regular events, such as Science Week or project days, such as STEM Day, allow all pupils to come off-timetable, to provide broader provision and the acquisition and application of knowledge and skills. These events often involve families and the wider community. • At the end of each topic, key knowledge is reviewed by the children and rigorously checked by the teacher and consolidated as necessary.	children's enjoyment of science and to motivate learners

educational visits linked to the science curriculum, such as visits to the Planetarium at the Hancock Museum, Newcastle and Blue Reef Aquarium in North Tyneside. We endeavour to ensure that the Science curriculum we provide and give children the confidence and motivation to continue to further develop their skills into the next stage of their education and life experiences.		