

Science at St Andrew's



<p>Our science curriculum places high value on exploring the world around them and to raise their own questions through different types of scientific enquiries including practical activities. This will develop to the children making their own decisions about the type of enquiry to undertake and equipment that might be used. By UKS2 they will have a deeper understanding of a wide range of scientific ideas. Ultimately, we hope that these experiences and the knowledge gained will inspire all pupils to be scientifically literate and as they mature, to question the world around them whilst making links between different areas of learning.</p> <p>Science is given a high profile throughout school linking areas to visits and trips to engage and enthuse</p>	<h3 style="text-align: center;">BIG IDEAS</h3> <p>Physics: seasonal changes; light; forces and magnets; sound ;electricity; earth and space;.</p> <p>Chemistry: everyday materials; use of everyday materials; rocks; states of matter;;properties and changes of materials.</p> <p>Biology: plants; animals including humans; living things and their habitats; plants; and imals including humans; evolution and inheritance.</p> <p>Working Scientifically: KS1 are taught to use practical scientific methods, processes and skills considering observations using simple equipment; to suggest answers to questions; identifying and classifying plus gathering and recording data. KS2 develop these concepts further using more advanced equipment e.g data loggers; presenting results in a variety of ways e.g bar charts and recording labelled drawings.</p>	<h3 style="text-align: center;">CONTENT & SEQUENCING</h3>  <ul style="list-style-type: none"> • EYFS deliver stand alone sequences of lessons based on Early Learning Goals. • Y1 & 2: Superheroes—Body parts; exercise & keeping fit. Famous Scientist: Newton. Traditional Tales-Materials. Our World—Animals & Humans; Seasons; Plants. • Y3 & 4: Fairground-Light; Electricity; Forces & Magnets. Romans-Magnets; Different types of scientists. World Traveller-States of Matter; Living Things & Their Habitats (Deserts). Amazing Americas-Sound; Living Things & Their Habitats (Rainforest). Pre-Historic Britain-Plants; Rocks & Soil. The Greeks-Animals, including humans(Y3—<i>diet, Skelton, muscles</i>+ Y4—<i>digestive system, teeth, food chains</i>). • Y5 & 6: Ancient Egyptians—Properties & Changes of Materials (<i>separating, reversible, irreversible</i>). Invaders and Settlers—Light & Sound. Our Wondrous World—Living things and their habitats; Adaptation. Victorians—Evolution and inheritance; Micro organisms; Electricity. Space—Forces; Earth and Space. Water Worlds—Animals including humans; 	
<h3 style="text-align: center;">LINKS WITH ENGLISH & MATHS</h3> <ul style="list-style-type: none"> • Lessons are led by teachers, with learning focussed activity. • High quality texts are used. • Reports and recount writing. • Measurement. • Statistics. 	<h3 style="text-align: center;">RETRIEVAL PRACTICE</h3> <ul style="list-style-type: none"> • Low stakes quizzes for long term memory. • Can you still...? Activities systematically included in teaching sequences. • Cross year group links made explicitly to refer to prior learning. • Important scientific concepts and vocabulary e.g energy, evaporation, predator. 	<h3 style="text-align: center;">PROGRESS</h3> <ul style="list-style-type: none"> • Units of work are carefully sequenced so prior knowledge and concepts are built upon from previous year groups and units. • Our cross curriculum is the progression model. • End of unit written tasks/quizzes/ knowledge organisers. • Responses to key questions in books. 	<h3 style="text-align: center;">SUPPORT</h3> <ul style="list-style-type: none"> • Everyone has access to the National Curriculum Programmes of Study. • Structured questions and sentence stems used to support. • Differentiated activity recoding sheets provided. 