

Statement of Intent - Science

Science is important as it influences so many aspects of daily life including food, energy, medicine transportation and leisure activities. We aim to engage and inspire pupils in science by giving them the curiosity to find things out and see the relevance of what they are learning to their lives. The science curriculum aims to develop the knowledge, skills and understanding to allow pupils to develop a belief in their own abilities to make sense of the fast changing society of today.

The science curriculum and extra-curricular STEM activities build on the KS2 curriculum following the 10 big ideas in science and enables pupils to grow through embracing opportunities that are provided; these are mapped by a spiral curriculum that covers KS3 and KS4. For the biology aspects the pupils study organisms and genes which give them an insight into how their bodies work and how they can live healthily both in mind and body, and ecology to help them understand and respect the natural environment. In chemistry the study of matter and chemical reactions help pupils make sense of the materials around them and from the study of earth science they can engage with environmental processes that affect the future of the planet. In physics the study of forces and electromagnets can help pupils with understanding cause and effect in everyday events; energy and waves engages the student to think critically about the future. Across the curriculum the work is active involving practical work with experiments as well as role play; discussion; debate and other active learning strategies which develops their respect for each other and valuing the opinions of others whilst developing positive relationships. In all areas the pupils learn about and use data handling which allows them to practice critical skills that they need to make decisions about both their futures and the future of the planet thereby growing in humanity and kindness.

The big ideas carry through to KS5 where we have two routes for the pupils, the academic route of A levels in all three sciences and the vocational route of the level 3 BTEC. These routes will give our pupils courage and resilience to feel that they can succeed at higher education and future careers.

In summary the science curriculum and the extracurricular STEM learning looks to produce scientifically literate pupils who have a curiosity to find out how the world works and provides them with the skills to evaluate where they are now and imagine a better world.