

QE Science Curriculum Intent

At Queen Elizabeth High School, we believe that science empowers pupils to understand the world around them and equips them with the knowledge, skills and curiosity to shape the world of tomorrow. Our ambitious science curriculum inspires every learner to become confident, scientifically literate citizens who can think critically, solve problems and make informed decisions about issues affecting society, health and the environment.

Our curriculum is carefully sequenced from Year 7 to Year 11, ensuring that pupils develop secure substantive knowledge alongside disciplinary knowledge. Key scientific concepts are revisited through a spiral curriculum, allowing pupils to build upon prior learning, strengthen long-term memory and make meaningful connections between Biology, Chemistry and Physics. This enables pupils to deepen their understanding whilst preparing successfully for GCSE and further study.

Practical science lies at the heart of our curriculum. Pupils develop the skills of enquiry by planning investigations, analysing evidence, evaluating methods and drawing valid conclusions. Through regular opportunities to work scientifically, pupils learn that scientific knowledge is based upon evidence and that scientific ideas continue to develop through research and discovery.

Our curriculum is designed to be inclusive, ambitious and accessible for all learners. High expectations, appropriate challenge and carefully scaffolded support ensure every pupil can achieve success regardless of their starting point. Literacy, numeracy and scientific vocabulary are explicitly taught throughout the curriculum, enabling pupils to communicate scientific ideas accurately and confidently.

Beyond examination success, we aim to foster a lifelong interest in science by making learning relevant to everyday life and future careers. Pupils explore contemporary issues including climate change, sustainability, medical advances, energy security and emerging technologies, developing an appreciation of how science improves lives and addresses global challenges.

Through enrichment opportunities, practical experiences and careers education, pupils gain an understanding of the diverse opportunities available within STEM industries. We seek to raise aspirations by showcasing the breadth of scientific careers and encouraging pupils to become innovative, resilient and responsible contributors to society.

By the time pupils leave Queen Elizabeth High School, they will possess:

- secure scientific knowledge across Biology, Chemistry and Physics;
- the ability to think critically and evaluate evidence;
- confidence in practical and investigative skills;
- resilience when solving unfamiliar problems;

- an appreciation of the role science plays in modern society; and
- the knowledge and skills required for success in further education, employment and lifelong learning.

Our ultimate aim is to develop inquisitive, knowledgeable and responsible young people who understand the power of science to improve lives and are prepared to contribute positively to an ever-changing world.