CSS Children's Support Service

CURRICULUM OFFER

Subject	Science
Intent	We study Science because Science means discovery of how the world works, our place, impact and the role and the responsibilities we have in Society. We examine how the human body works. We explore scientific ideas and develop knowledge and understanding through enquiry and experimentation. We provide a stimulating, engaging, safe and inclusive learning environment that will challenge all students. We aim to develop scientific awareness and communication skills that opens minds to the possibility of future employment opportunities in the world of Science and beyond.
Implementation	In KS3, our scheme of work specifically tailors to the needs of our learners. We provide a grounding in Biology, Chemistry and Physics as well as looking at scientific problem solving and use of evidence to develop theories and explanations. Each topic is typically between 3-6 weeks in duration, with an assessment at the end of each topic. The aim of KS3 is to enthuse students with appreciation of science learning and allow them to discover how things work. Our emphasis at KS3 is on practical and investigative work with a constant effort to relate what we teach to the world around them and to raise awareness of Science in Society. Those students that remain with us into KS4 will benefit from good continuity as they progress to learning at a higher level. At KS4, we are making significant changes to meet the needs of our learners. Our year 10 classes will study for the AQA GCSE Biology GCSE, which is a two-year programme of study. The assessment consists of two papers, each 105 minutes long. Topics to be studied are: Topics 1–4: Cell biology; Organisation; Infection and response; and Bioenergetics (Paper 1). Topics 5–7: Homeostasis and response; Inheritance, variation and evolution; and Ecology (Paper 2). Running concurrently to this will be a programme of 'Working Scientifically' tasks, which will help provide our learners with the practical and analytical skills that Science learners develop. We will also be introducing a second study pathway to ensure that all students have the opportunity to make achievements in Science. The OCR/Cambridge Nationals Sport Science Award/Certificate can be completed over two years and enables students to achieve a Level 1 or a Level 2 qualification. All students will study two mandatory topics that look at reducing the risk of sports injuries and applying the principles of training. Students will have two

	optional topics to study that have their foundations in Science knowledge, making this a Science- based qualification. Assessment is via one written paper (60 minutes) as well as the larger component of school-assessed tasks that are completed throughout the course duration. Our current Year 11s will study for the Edexcel Science Entry Level Certificate (Single award) and/or follow the pathway towards the Edexcel iGCSE Science (Single award). The Entry Level Certificate closely matches the programme of study and provides a progression route to the iGCSE Single Science Award. It consists of 6 assessments taken at any time during the course and the total marks determine whether students are awarded a Level 1, 2 or 3 qualification. The Edexcel iGCSE Single Award in Science results in one International GCSE qualification graded 9 to 1. This two-year course covers both knowledge and application of Science topics. The assessment consists of one paper for each Science, Biology, Chemistry and Physics. Each paper is 70 minutes long and assesses content from across the specification. Topics covering core Biology content areas: The nature and variety of living organisms; Structures and functions in living organisms; Reproduction and inheritance; Ecology and the environment; Use of biological resources Topics covering core Chemistry content areas: Principles of chemistry; Inorganic chemistry; Physical chemistry; Organic chemistry Topics covering core Physics content areas: Forces and motion; Electricity; Waves; Energy resources and energy transfers; Solids, liquids and gases; Magnetism and electromagnetism; Radioactivity and particles; Astrophysics
Impact	We aim to provide a Science education that influences choices made by young people towards a positive, working future, and a better understanding of themselves. Our specialist teachers enable learners to explore the nature and application of Science; we personalise strategies aimed at promoting learning for all, regardless of learning difficulties; and we deliver lessons that creates enjoyment for learning and a range of transferable skills. A qualification in Science supports young people into Colleges, apprenticeships and many other employment opportunities.

	Ultimately, we strive to improve perceptions of potential careers in Science and provide them with the opportunities that our young people can aspire to. Science qualifications are useful for careers in industries such as Engineering, the Sports Industry, Health and Social Care, the Education Sector and Animal Care.
Accreditations	Edexcel Entry Level Certificate Single Award) levels 1,2 or 3 Edexcel iGCSE Science Single Award
Safeguarding	We are committed to the safety and protection of the students and include areas of safeguarding in our teaching. These include discussion in health and hygiene topics, e.g., causes and treatment of infection, communicable disease; the effects of drugs to our body systems (e.g., opportunities to discuss tobacco smoking and cannabis and mental health); we will also discuss ethics in a Science context, e.g., rights for/against abortion, genetic testing and human rights.
Enrichment opportunities	We provide a number of enrichment opportunities throughout the year. These include but are not exclusive to trips to Colchester Zoo, The Science Museum, The Natural History Museum, Kew Gardens, British Science Week event (6-15 March 2020), inviting in External Speakers and cross curricular projects. We also recommend ways to support your child with their learning by the following: Use BBC bitesize website, which provides a range of online tools, animations, videos and quizzes, to help learning Ask your child to explain what they have learnt today Choose an article from the BBC about Science and discuss it with your child Provide students with revision guides and/or workbooks linked to the GCSE specification.