

Curriculum Intent

Summit	Cockshut	Subject: Science
<p>At Summit our overarching curriculum aims to:</p> <ul style="list-style-type: none"> • Promote social justice through the provision of a rich and relevant cultural capital curriculum that supports students' learning in a wide range of subjects • Provoke ambition in our students by challenging them to engage with hard concepts • Inspire students to enjoy reflective and dynamic learning • Support our students to overcome disadvantage by equipping them with the deep knowledge and complex skills they will need to succeed in future education, work and life • Spark curiosity and excitement in students about the world, themselves and each other • Deliver coherence within and across subject areas so that students understand, learn how to remember, and make connections between the composite parts of the knowledge they are taught • Engender tolerance, optimism and hope in our students, to empower them to create a better world <p>Our academies will have additional, individual curriculum intent according to their ethos and context.</p> <p>Our academies will map their curricula within and across subject areas, mindful of the foundations of the primary curriculum, and the future demands of further and higher education. Careful and intelligent consideration will be given to the selection of interleaved knowledge and skills across fourteen years of learning, from early years to 6th form. Our 'Excellence in Teaching' model of pedagogy, rooted in direct instruction, will support profound learning across a coherent curriculum experience for students.</p> <p>Our academies will collaborate and share practice, planning and resources to reduce workload, and will be free to adapt their own curricula with respect to their particular context and needs.</p>	<p>Provide our students with a varied curriculum offer that promotes ambition and accounts for the social contexts of our students.</p> <p>Develop students' Cultural Capital through varied curriculum experiences that inspire students and help them gain an appreciation of achievement, creativity and nature.</p> <p>Foster a culture where reading and learning is important to students both in school and throughout their lives.</p> <p>Enable students to coherently understand, remember and make connections between the knowledge they are taught within and across subject areas.</p> <p>Deliver powerful and challenging knowledge to students to drive their learning experiences and their emotional intelligence.</p> <p>Encourage students to embrace and have opinions on the social, moral, spiritual and cultural issues they may encounter throughout their lives.</p> <p>Instil resilience and ambition in our students by promoting challenging ideas and concepts in lessons.</p> <p>Our curriculum will be delivered in accordance with the 5 principles of T&L from "Making Every Lesson Count" by S. Allison and A. Tharby.</p>	<p>Subject: Science</p> <p>The science curriculum enables students to improve their ability to problem solve and develop their skills in both numeracy and literacy. Students secure a foundation knowledge in Key Stage 3 and develop this when studying at GCSE level. The topics delivered allow students an opportunity to explore real life science applications, therefore making the subject more relevant to them. Learners will be able to transfer skills learnt across to other subjects, such as being able to analyse sources of information, interpreting graphical representation of data, planning their own questions for investigations and evaluating models. Students are also encouraged to recognise the importance of peer review in the scientific community as well as considering ethical issues in science. The curriculum supports diversity by recognising the contributions made to science by women and BAME. These contributions are referenced within the curriculum plans and shared with pupils during curriculum delivery.</p> <p>The order of teaching in Key Stage 3 has been selected, as it builds on the skills and knowledge attained in Key Stage 2 and makes for a logical progression whilst building a core foundation of knowledge ready for GCSE study. More explicit GCSE content is taught to year 9 students, allowing time to be dedicated to practice retrieval skills and retention of knowledge.</p> <p>Students will complete the course having developed the necessary skills to carry out an investigation and analyse their results. Literacy is a focus of the science curriculum with strategies used to develop both Tier 2 and Tier 3 vocabulary, these being explicitly taught using the etymology and morphology of selected words within topics. Written communication is developed through creative writing as this will prepare them for extended answer questions in which answers require a more in-depth explanation. The curriculum also enables students to develop their maths skills such as graph drawing and interpreting skills, calculations, and being able to rearrange equations, as well as having a rudimentary understanding of significant figures and standard index units.</p> <p>Progress in science is seen by the accumulation of knowledge and improvement of key skills such as carrying out, analysing and evaluating an investigation. Students that are making exceptional progress are able to do this independently by creating their own question to investigate.</p>

Progress is also seen in the development of students' ability to explain the science behind a particular phenomenon. When students first start to explain they tend to use simplistic language. When they are making exceptional progress there is a movement to academic and correct scientific vocabulary. The topics taught become progressively challenging, in year 7 students secure the knowledge to support them in year 8, content is then further developed, as well as the skills, as students move forward into year 9 and then into GCSE.

Retrieval practise is embedded into the start of all lessons, recalling content from previous lessons and topics. Revision time is planned into the curriculum to revisit topics prior to assessment. Assessments produced also have a synoptic element so students are also assessed on both prior and current knowledge. The curriculum is interleaved throughout Key Stage 3 and 4, where the content covered in year 7 is followed up in year 8 and revisited and further developed again in year 9, 10 and 11.