

# Curriculum Map - Science

KS3	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>Year 7</b>	Becoming a Scientist/ Cooking with Chemistry.	Cooking with Chemistry/ CSI Hednesford.	CSI Hednesford/What's in the Box?	What's in the Box?	Give us a Wave.	Reproduction.

KS3	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>Year 8</b>	The Jungle.	Charging up.	Charging up/ What's in the box 2?	Fuelling up.	Shipwrecked.	Health Living, Healthy me.

KS3	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>Year 9</b>	Through the Microscope/ Structure of the Earth.	May the Force be with you/ I Feel Hungry.	Run for your Life/ Botany Enquiry.	Botany Enquiry/ Ecology Exploration.	Energy is Everything/ Lets get Moving.	Atoms of the Universe.

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Biology	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>Year 10</b>	B1 - Cell biology	B2 - Organisation	B3 - Infection and response	B4 - Bioenergetics		B7 - Ecology

Biology	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1
<b>Year 11</b>	B5 - Homeostasis		B6 - Inheritance		

Chemistry	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>Year 10</b>	C1 - Atomic structure	C2 - Bonding	C3 – Quantitative chemistry	C3 – Quantitative chemistry	C4 – Chemical changes	C5 - Energetics

Chemistry	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1
<b>Year 11</b>	C6 – Rates of reaction C7 – Organic chemistry C8 – Chemical analysis	C9 – Atmosphere C10 – Earth's resources			

Physics	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>Year 10</b>	P1 - Energy	P2 - Electricity	P2 - Electricity	P3 – Particle model		P4 - Radiation

Physics	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1
<b>Year 11</b>	P7 - Magnetism	P5 - Forces	P5 – Forces P6 – Waves P8 – Space (triple only)		

# Curriculum Map - Science

Applied BTEC	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 12						

Applied BTEC	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1
Year 13					

# Curriculum Overview - Science

## KS3

At SUA the science curriculum at KS3 is exciting, purposeful and practical based. Students are encouraged become a scientist by developing their science skills through thought provoking practical lessons and enquiry. The science curriculum has been designed to develop curious independent learners and to deepen their understanding of science and the world around them. At KS3 students will study units that interleave Biology, chemistry and physics. In year 7 students will study the following topics: Becoming a scientist, cooking with chemistry, to infinity and beyond, what's in the box, give us a wave and reproduction, In year 8 students will study the following topics: The jungle, charging up, what's in the box 2, fuelling up, shipwrecked In year 9 students look at the scientific fundamentals which allows for them to bridge between the thematic approach of ks3 to the rigor of a separate science curriculum when they go into ks4. These topics include: Through the microscope, lets get moving, May the force be with you.

## KS4

All students at SUA will study for 2 GCSEs in science giving them opportunity to excel and continue on with their science studies. Students follow the either AQA combined science: trilogy or the separate sciences specification. Both focus on practical's supporting the knowledge students. In biology students will look at aspects such a DNA and how its code make us who we are, in addition will explore the communicable and non-communicable diseases. In chemistry students will understand the language of the periodic table to allow them to predict reactions. Students will also look at the world around them and reflect on the impact we are having on our world. In physics students will further their studies in electricity and forces as well as ponder space. Students will also develop a deeper understanding of applied maths throughout the KS4 Physics course.

## KS5 – Applied BTEC

At SUA 6 students will follow the Pearson BTEC specification. This course has been designed for post-16 students wishing to continue their passion for science through applied learning, and who aim to progress to higher education, apprenticeships or employment in the field of science. At KS5 students will apply their curious minds to physics, chemistry and biology and how these sciences play an important role in everyday life. This will then move on to looking at the applications of scientific techniques within the laboratory setting to ensure that students are ready for careers within the Sciences.

### Links from KS2

Students join SUA with a range of drama experience. Therefore, during the first term, all students cover basic skills such as facial expressions, use of voice, gestures, movement, stance and proxemics to ensure they have the correct toolkit in order to devise sophisticated pieces of drama. Students will partake in a variety of different role play and explore characters through identifying themes from text. Students will also develop their reading and writing skills through the analysis and evaluation of texts, along with in role writing to develop character understanding. These opportunities will be provided to all students to ensure they are able to understand meaning and comprehend expression through the form of plays.

### Experiences

- All students are selected to partake in The REP Project which sees a professional theatre practitioner visit the academy weekly and lead students in a one-hour session. Students then devise their own pieces of drama and visit The REP to perform within a professional theatre and also have the chance to watch a professional production.
- Students are invited to attend extra-curricular clubs, such as the academy show production and drama club. Each year, SUA hosts a musical performance in which students audition for roles, rehearse and perform to parents, peers and members of the wider community.

### Links to CHARACTER

- Developing resilience through practical exploration and the building of confidence.
- Engaging topics and texts that peak the curiosity of students and enable them to become lifelong learners.