

Science

What is our Curriculum Intent?

Every student at the Academy will become a 'scientifically literate' global citizen, with the ability to apply their skills and understanding to enrich their lives and society.

How does our Curriculum meet the Academy's 6 Curriculum Core Principles

Is anchored in our Christian Values

Our curriculum inspires awe and wonder and promotes stewardship of our world. - We use real world examples in lessons and provide super curricular opportunities to spread our passion for science.

Examples include

Is fully inclusive and celebrates diversity

Our curriculum challenges stereotypes in STEM subjects. - We actively promote visibility of diversity in STEM in careers and teaching methods.

Values all subjects, both core and creative, academic and vocational

Our curriculum actively promotes links to other subject areas. - We show the variety of applications that a broad education in science can provide.

Develops students' ability to be resilient, reflective, resourceful and responsible learners

Our curriculum fosters independence through rigorous application of scientific principles. - By learning about the scientific method, our lessons provide a structure to carrying out practical procedures

Provides pathways for academic success

Our curriculum provides pathways to the STEM careers of the future. - both in lessons and outside of lessons we show a variety of jobs and careers to aspire and work towards.

Prepares students beyond knowledge and skills to be successful in tomorrow's world

Our curriculum prepares students to be critical, ethical thinkers applying their skills to improve tomorrow's world. - we promote and educate learners to assess facts and data available to be able to make a decision taking moral and ethical considerations into account.

Curriculum Intent - KS3

- Enthuse students about science by giving them the opportunity to develop practical skills and understand the scientific process.
- Enable students to develop an understanding of key scientific concepts.

Curriculum Intent - KS4

- Deepen students' knowledge of scientific concepts.
- Develop students' practical skills and ability to analyse and evaluate scientific data.
- Increase students' awareness of ethical issues in science and how they can impact upon society.

Curriculum Intent - KS5

- Foster students' critical thinking and independent learning skills and prepare them for a STEM career.
- Excellent outcomes so students can access the pathway of their choice.

What makes our curriculum offer unique & local?

- All students will study Science within the context of careers in STEM subjects, e.g. Forensics, Medicine, Engineering, Space

- All students will be aware of the scientific issues that will affect them as citizens in the 21st Century.
- All students will have the opportunity to achieve a CREST Discovery Award - a nationally recognised STEM certificate from the British Association.
- All students will acquire practical skills that will enable them to succeed in GCSE Sciences and beyond, through regular practicals within lessons
- All students will have the opportunity to attend events and activities given by visiting speakers and to visit local places of scientific interest.
- All students will carry out their own independent research into a Science topic of their choice and present to their peers during the KS3 Science Fair and KS5 Science Project Event.

What is studied in Key Stage 3?

HT	Year 8 Current Year 8 Sept 2021
HT1	Live & Kicking
HT2	Pyrotechnics
HT3	Catastrophe
HT4	Species at War
HT5	Studio Magic
HT6	nViz(Energy)

From Sept 2021 New 3 Year KS3 Curriculum

The new 3 year KS3 curriculum was introduced September 2021 (Year 7 and Year 8). This is to allow for more in depth study of the KS3 topics and with more Science rigour. It is a spiral curriculum building on concepts and key ideas in Science across the three year groups. In Year 9 Science Skills will be taught alongside Ideas in Science and some GCSE topics to begin the transition to GCSE. Underpinning the planning of the course are new resources, created by our science specialist teachers, new schemes of learning and an emphasis on recall and retrieval practice that gives students a secure foundation and success as they move into their next phase of learning.

Below is an overview of the new structure:

	Year 7	Year 8	Year 9			
			Biology	Chemistry	Physics	Skills Lesson
HT1	Organisms 1	Reactions 1 / Practical Skills	Organisms 2	Matter 2	Waves 2	How Science Works
HT2	Matter 1	Ecosystems 1				IaS 7/8
HT3	Energy 1/ Waves 1	Earth 2	Eco-system 2	Reactions 2	Energy 2	IaS 7/8
HT4	Genes 1	Electromagnets 2				IaS 7/8
HT5	Forces 1/ Electromagnets 1	Genes 2	GCSE - B1	GCSE - C1	GCSE - P1	GCSE - DA Investigation