

Science

The Staffordshire University Academy the science department aims to ensure every child is able to understand and critically evaluate any scientific problem they may be faced with in an ever-changing, modern world. We seek to provide an inspiring range of experiences both in and outside the classroom. We uphold and display the values of the academy and encourage the students to also Aspire, Believe and Achieve at every possible opportunity within our subject area.

The science curriculum provides students with the foundations to understand the inner workings of this world using scientific processes and concepts from all fields of endeavour. We provide the opportunity for students to explore a number of pathways, suited to the ability of individual students. There is an emphasis on developing both scientific enquiry skills and practical skills, and students are encouraged to consider the links between concepts learnt in the classroom and their everyday life.

Key Stage 3

Year 7	Year 8
Safety in Science Cells Particles Forces Body Systems Atoms, Elements and Compounds Reactions Sound Light Reproduction Space	Adaptation and Inheritance The Periodic Table Ecosystem Processes Motion and Pressure Health and Lifestyle Energy Separation Techniques Electricity and Magnetism Metals and Acids

Key Stage 4

	Year 9	Year 10	Year 11
Physics	Waves – Electromagnetic spectrum Forces 1 Resources Density Forces 2 Space Light	Electricity Magnetism Forces Waves Radiation	Forces Waves including light Electricity Magnetism and electromagnets Space
Biology	Cell Structure Cell Transport Plants Respiration Digestion Enzymes Ecology	Infection Evolution Biodiversity	Infection and response Homeostasis Variation and inheritance Evolution Ecology
Chemistry	Atomic Structure Bonding Types of reactions Rates of Reaction Crude Oil and Fuels Our Atmosphere	Acids and Alkalis Chemical Analysis Bonding The Earth's Resources Energy Changes Chemical Calculations Electrolysis	

All students will develop their knowledge of the three disciplines of Science; Biology, Chemistry and Physics. At KS3, students develop an understanding of the fundamental concepts in Science, which will be built upon during their KS4 studies. At GCSE, students will complete either Combined Science, or Separate Science qualifications, which will widen their understanding of scientific concepts and provide them with a potential pathway into further education.

Key Stage 5

A Level – Biology

A Level – Chemistry

A Level – Physics

Members of the department

Mrs E Jones – Director of Teaching and Learning (Science)

Mrs L Sinclair – KS3 Coordinator

Mr T Holdway – KS4 Coordinator

Mrs B McGarrie – KS5 Coordinator

Mrs J Wells – Science Teacher

Mrs H Morrey – Science Teacher

Mr K Bennett – Science Technician