

Science at the Skegness Academy takes a look at the world through enquiring eyes, encouraging pupils to investigate for themselves and explain why things happen in the world around them.

Students develop a variety of analytical and life skills such as how to hypothesise, predict, observe, measure, record, conclude, evaluate and justify the conclusions they make. Students become adept at making their own judgements on claims which are made in the media and elsewhere, using a variety of sources of information. We hope that all students will become independent investigators and thinkers who can take a critical look at the world around them and determine how science shapes their lives.

The Science Curriculum

During years 7 and 8, students will learn the key scientific principles in an 'Applications of Science' approach taught using our thematic curriculum. By relating everything to real-life examples, students develop an understanding of the relevance of science in everyday life. Units of study pull together ideas from the three main strands of science and the topics include Life and Living Processes, Energy and Particles and Materials. Each of the individual units of the larger topics is linked to a theme and divided out across the year. The table below summarises the layout of the year:

	Year 7 Theme	Science topics	Year 8 Theme	Science topics
Term 1	British Culture and History	<ul style="list-style-type: none"> • Change state 2 • The Periodic table 	Prejudice and Discrimination	<ul style="list-style-type: none"> • Digestion • Respiration • Photosynthesis
Term 2	Health and Nutritional Value	<ul style="list-style-type: none"> • Magnets • Change state 1 • Respiration 	Popular Culture and Social Media	<ul style="list-style-type: none"> • Drugs • Energy 1 • Sound
Term 3	Space and The Future	<ul style="list-style-type: none"> • Electricity • Pollination 	Childhood	<ul style="list-style-type: none"> • Forces • Microbes
Term 4	Conformity and Non-Conformity	<ul style="list-style-type: none"> • Variation • Environment 	International Culture	<ul style="list-style-type: none"> • Skeleton and muscles • Reactions
Term 5	Fashion and Trends	<ul style="list-style-type: none"> • Acids and Alkalis • Mixtures • Reproduction 	Electronic Evolution	<ul style="list-style-type: none"> • Genetics • The Periodic Table • Energy 2
Term 6	The Built Environment	<ul style="list-style-type: none"> • Forces • Energy • States of Matter 	Europe and the European Union	<ul style="list-style-type: none"> • Combustion • Earth • Rocks

In year 9, students start their GCSE material but focus on the practical elements of the new GCSE course. The new GCSE's have a minimum of 21 practical's that will feature in their final examination papers. The students in year nine complete bespoke booklets focussing on the key concepts and skills required for each of these practical investigations. By the end of year nine, the students will have completed a booklet for each practical and have already covered a foundation level of content for each of the practical tasks.

In year 10, the students start the content of the GCSE's. At the Skegness Academy, all students start following the AQA Combined Science: Trilogy specification. This will allow every student to gain two GCSE's in Science by completing elements of Biology, Chemistry and Physics. The course is comprised of six examinations, each with an equal weighting of 16.7%. Progress of these students from year 9 and 10 will determine whether they can move onto the separate sciences in year 11 or remain completing the double award.

More information for the new AQA Combined: Trilogy can be found here:

<http://www.aqa.org.uk/subjects/science/gcse/combined-science-trilogy-8464>

In year 11, the students are completing a double science GCSE award following the AQA syllabus. This course comprises of six examinations (three for each qualification) and two pieces of coursework (one for each). The examinations and coursework have equal weighting of 25% each.

We offer the three main sciences at Key Stage 5. Year 12 and 13 AS and A2 Level courses are modular - OCR Biology, OCR Chemistry and OCR Physics. We also offer A Level 3 BTEC course to offer a vocational route at Key Stage 5.

Our aims within the science curriculum are:

- To provide a balanced science education for all students who have equal access to the range of science experiences, enabling them to reach their full potential;
- To stimulate an interest and enjoyment in science, so academic achievement and expectations may be raised;
- To incorporate 'how science works' into all aspects of science teaching as a way of developing students' awareness and appreciation of science in their lives;
- To develop the skills of analysis and problem solving;
- To enhance the awareness of past influences, present and likely future implications of science on education, work, leisure and the world environment; and
- To enable pupils to satisfy the demands of the National Curriculum.