Saint Cecilia's
Church of England School

"Glorifying God through outstanding, enjoyable education"

Science

Key Stage 3
Pupils are taught a range of Biology, Chemistry and Physics topics in Years 7, 8 and 9, in line with the National Curriculum for Science. The Key Stage 3 key concepts of scientific thinking, applications and implications of Science. Cultural understanding and collaboration are built into all topics, and pupils are given many opportunities to enhance their practical and enquiry skills, their critical understanding of evidence and their communication skills through investigations, role plays, modelling, presentations and research based projects.

Pupils are encouraged to self and peer-assess their achievement throughout the year to inform their learning and give them ownership of their progress. Below are the topics covered in each year group:

Year 7:
Topics in Year 7 start with a 'Working Scientifically' topic, then content topics include cells, structure and function of body systems, reproduction, particles and their behaviour, elements, atoms and compounds, reactions, acids and alkalis, forces, sound, light and space. Pupils are taught in mixed-ability classes and have 3 lessons of science a week.

Year 8:
Topics in Year 8 include healthy lifestyle, ecosystems, adaptation and inheritance, The Periodic Table, separation techniques, metals and acids, The Earth, electricity and magnetism, energy and motion and pressure. Pupils are taught in mixed-ability classes and have three lessons of Science a week.

Year 9:
By the beginning of Year 9 pupils have covered all of the required content for the national curriculum at KS3. The Autumn term of Year 9 is designed to extend and engage, with preparation for GCSE. Topics covered are new technologies in Biology, Chemistry and Physics. Pupils are taught in mixed-ability classes and have three lessons of science a week. GCSE courses begin in January of Year 9 with a topic each of biology, chemistry and physics.

Pupils are assessed within each topic, using both summative and formative assessment tasks and in an end of year exam each year.

Key Stage 4
Pupils will complete one of two routes through Key Stage 4: Combined Science: Trilogy (previously known as double-science; worth 2 GCSEs); or Triple Science GCSE (separate GCSEs in biology, chemistry and physics). The decision as to which course pupils will complete will be based on their prior attainment, including the end of year 9 assessments. All pupils will be taught in ability-based groups, and received five hours of class time per week.

Combined Science: Trilogy (previously known as double-science)
In this course, pupils will cover a range of topics in biology, chemistry and physics. In all subject areas, there are key ideas underpinning the learning. Pupils will be expected to work scientifically, use mathematical skills, and develop their analysis and evaluation. The specification is available at the AQA website, course code 8464. The course is assessed through 100% written examination, and linear. There will be six papers at the end of year 11, two in each subject area.

Triple Science
In this course, pupils will cover a wider range of topics in Biology, Chemistry and Physics than in the combined science course. In all subject areas, there are key ideas underpinning the learning. Pupils will be expected to work scientifically, use mathematical skills, and develop their analysis and evaluation. The specifications are available at the AQA website, course codes 8461 (Biology), 8462 (Chemistry) and 8463 (Physics). The courses are 100% written examination, and linear. There will be six papers at the end of year 11, two in each subject area.