



Key Stage 3 – Years 7&8

Science

Year 7 Outline

Students follow a scheme of work that introduces the key ideas of Science. As a whole the topics build on their scientific knowledge and skills from Key Stage 2 whilst enhancing their practical and problem solving skills.

The topics covered are:

- Introduction to secondary science
- Cells
- Ecosystems
- Energy from food
- Solids, liquids and gasses
- Introduction to chemical reactions
- Acids and alkalis
- Energy
- Forces

Scientific Investigation is embedded in to the topics and students are given opportunities to develop their skills in planning and carrying out practical investigations. All teaching takes place in fully equipped laboratories by specialist staff.

Year 8 Outline

Students follow a scheme of work that builds on what is taught in Year 7. Key ideas are developed and extended. Students complete the KS3 curriculum in Year 8, which allows them to start preparation for their GCSEs a year early; hence high ability students can be extended at an earlier stage.

The topics covered in Year 8 are:

- Photosynthesis
- Genetics and evolution
- Elements, mixtures and compounds
- Reactions of metals
- Earth science
- Temperature and space
- Waves
- Electricity and magnetism

Scientific Investigation is embedded in to the topics to give the students background for the Required Practical section of GCSE Science. All teaching takes place in fully equipped laboratories by specialist staff.

Group/Class structure

In Year 7 the students are taught in their mixed ability Tutor Groups. In Year 8 the students are set into new balanced mixed ability teaching groups for Science. We take every care to ensure that each student is placed the teaching group which is most appropriate for them, so that they can continue to make progress at an appropriate pace.

Teaching & Learning Style

The curriculum has been designed to allow lots of opportunities for practical work and this is often completed in small groups with peers. A range of tasks are always delivered in lessons to accommodate different styles of learning. Students are also encouraged to regularly work independently. Regular feedback from the teachers ensures that the students are aware of their short-term and long-term targets in the subject.

Assessment

Each Key Stage 3 Science topic has criteria for progress that are introduced to the students at the start of that topic. The students are regularly assessed of their progress through these criteria. Each individual student has their own target for “good progress”, however achievement beyond this is open and actively encouraged to all students.

Formative assessment is done twice in each year. These take the form of exams covering a range of the topics from the year.

Students are always given the option to review all their tests and assessments in detail so that they can set targets and give feedback on their performance.

Opportunities beyond the classroom

Our Key Stage 3 Science Club gives students the chance to explore Science further with fun and engaging experiments. Over the years we have had teams of students enter a variety of national competitions. Through Science Club Year 8 students have the chance to devise and perform their own experiment to gain Crest awards. Each March the Science Faculty runs events to coincide with National Science Week. Also Year 7 students could represent their house for the House Science Challenge, which contributes towards the overall House Championship. Year 8 students can also get involved in Astronomy Club.