



Year 7

Department of Science

OVERVIEW

Skills Developed

- Knowledge and understanding of science and how science works.
- Application of skills knowledge and understanding
- Practical, enquiry and data-handling skills.
- Problem solving skills.
- Group work, research and presentation skills.
- Understanding of the world around us

Topics covered

Cells and organisms

What is the smallest unit of life?

How do our cells work together to undertake the functions in our body?

Atoms and Elements

What is an atom made up of?

What can the periodic table tell us?

Earth and Beyond

Why do we have day and night and seasons?

What causes an eclipse?

What would we need to live on Mars?

Reproduction

What is the anatomy of the female and male reproductive organs?

How does a foetus develop?

Plants

What is the structure of a flower?

If plants cannot move, how can they spread and disperse their seeds?

Why is water so important for plants?

Particles and Solutions

What makes up everything around us?

What affect does temperature have on solubility?

How can a mixture be separated?

Sound and Light

Why can sound not travel through a vacuum?

Why are sounds different pitches and loudness?

What causes different object to appear different colours?

Earth and Atmosphere

What is the composition of the Earth and Atmosphere?

What is weathering and erosion?

How are different types of rocks created?

Energy

What energy is stored and transferred from object?

How is energy transferred?

What is heat?

How we assess your daughter's progress

- There will be a test after each topic, with scientific skills embedded throughout.
- Students will be given one week's notice and provided with a learning checklist in the topic booklet.
- The tests will be marked by the teacher and some lesson time will be allocated to reviewing the test.
- After the test, time will be dedicated to going over the test and time for students to complete formative feedback on individual areas they need to improve.
- Key homework tasks will set to consolidate or extend student knowledge as they progress through the curriculum.

How we support and develop your daughter

- Students will be able to attend Science club where they will be given the opportunity to carry out experiments which are not carried out in lessons.
- Students will be able to visit the school library which has a wide selection of science and technology books.
- Students will have the opportunity to enter inter-school Science competitions.
- Homework tasks will be set to consolidate or extend knowledge.
- There will be a school visit to the Herstmonceux observatory in the summer term.

How you can help your daughter

- Revision guides produced by educational publishers such as Collins and CGP can be helpful for revision. In particular, workbooks with question practice are most useful.
- Review your daughter's exercise book, ensuring that she has completed corrections, responded to teacher feedback and has caught up with missing work.
- Help to ensure that she brings the correct equipment to lessons, including a pen, pencil, ruler, rubber, calculator and lab coat.