

Science

During Y7 students study the three disciplines within Science: Biology, Chemistry and Physics. This works on a rotation system, students will be taught different modules at different points within their teaching groups. They are taught six hours of the subject across the two week timetable.



Biology

Programme of Study

1. Super Cells

Students will look at the structures of animal and plant cells and develop an understanding of these building blocks of life. They will develop practical skills through using a microscope and creating their own slides to view.

2. Skeletal and Muscular Systems

Students will look at the skeletal structure of a human and how movement is achieved with muscles. Practical skills will be developed through a dissection of a chicken leg to compare similarities with humans.

3. Reproduction

Students will look at the journey of a sperm to the egg and the development of a baby within the womb. Development of humans will also be studied with detail on puberty and the menstrual cycle. Plant reproduction will also be covered and practical skills will be developed through the dissection of a flower.

Suggested Reading List

- BBC KS3 Bitesize – Science
- Royal Society of Biology





Chemistry

Programme of Study

1. Atoms, Elements and Compounds

Students will look the atom and build up their understanding of elements and compounds. They will discover how elements react and discover the history of the elements. They will develop practical skills through conservation of mass investigations and reactivity of metals with acids.

2. Earth and Atmosphere

Students will look at the structure of the Earth and the rock cycle. This will build into the carbon cycle and the issues surrounding global warming. They will develop practical skills through comparisons of types of rocks and studying with magnifying glasses.

3. Pure and Impure Substances

Students will look at the difference between a pure and impure substance and be able to produce definitions. They will develop practical skills surrounding separating mixtures (evaporation, distillation, and chromatography).

Suggested Reading List

- BBC KS3 Bitesize - Chemistry
- Royal Society of Chemistry



Physics

Programme of Study

1. Electricity and Magnetism

Students will look at types of circuits, conductors and insulators, and resistance. They will then go on to study magnetism and how it links to the Earth. They will develop practical skills through building circuits, measuring voltage and current and building their own electromagnet.

2. Forces and Motion

Students will look at forces and how they interact with objects. They will be able to calculate speed, distance and time, and understand Newton's Law. Practical skills will be developed through investigations into up thrust and air resistance.

3. Space

Students will look at day and night, the seasons and order of the Solar system. They will be able to understand why we have eclipses, how we are exploring the universe and how the universe is organised.

Suggested Reading List

- BBC KS3 Bitesize – Physics
- Institute of Physics