

Intent:

We believe that Science is best learned and understood through experimentation and investigation.

In lower school, lessons have a practical focus to allow all pupils (inclusive of those with SEND or disadvantaged pupils) to develop their “can-do” skills and knowledge through direct hands-on experience. We look at examples of how Science is applied in the real world to encourage all pupils to further develop their understanding before moving to more abstract Scientific concepts.

At Key Stage 3, pupils follow the national curriculum. The national curriculum for science aims to ensure that all pupils:

- Develop scientific knowledge and conceptual understanding through the specific disciplines of Biology, Chemistry and Physics
- Develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them
- Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

At Key Stage 4, most pupils study the Edexcel GCSE (9-1) Combined Science course which allows them to continue a balanced approach to their Biology, Chemistry and Physics studies and results in a Double Science GCSE award. Some pupils make an option choice at the end of Year 9 to study Triple Award science.

Through the content across all three disciplines, all students will learn how to develop understanding and first-hand experience of:

- The development of Scientific thinking
- Experimental skills and strategies
- Analysis and evaluation
- Developing their use of scientific vocabulary and nomenclature

Curriculum plans:

Year 7:

HT1- Cells, Forces

HT2- Particles, Atoms, Reproduction,

HT3-Energy, Acids and Alkalis,

HT4 -Muscles and Bones, Ecosystems

HT5- Plant reproduction, Electricity

HT6 – Consolidation and Assessment

Year 8:

HT1-Mixtures&separation, Food &nutrition

HT2- Sound, periodic Table

HT3-Light, Energy Transfers

HT4-Metals and their uses, Breathing and Respiration

HT5-Unicellular organisms and Combustion

HT6 – Consolidation and Assessment

Year 9-

HT1- (Combustion), Genetics &Evolution

HT2- Reactivity, Forces & Motion

HT3-Making Materials and Fluids

HT4-Earth &Space, Forces &Electromagnets

HT5-Plant Growth and Rocks

HT6 – States of matter and Separating Techniques, Consolidation and Assessment

Year 10-

HT1- Key Concepts in Biology, Atomic Structure & The Periodic table, Motion

HT2- Cells & Control, Forces& Motion, Structures & Bonding

HT3-Acids&Alkalis, Genetics, Conservation of Energy

HT4-Calculations in Chemistry, Waves,

HT5- Natural Selection & Genetic Modification, Light and the Electromagnetic Spectrum

HT6- Health, Disease and the development of medicines, Assessment

Year 11-

HT1- Plant Structures and their functions, Electrolysis, Radioactivity

HT2- Animal Co-ordination, Homeostasis, Groups in the Periodic Table, Energy & Forces

HT3-Exchange and transport in animals, rates of reaction, Electricity & Circuits

HT4-Ecosystems& Material Cycles, Fuels, Magnetism

HT5- Atmospheric science, Particle model and Forces