Marshland High School



KS3 Curriculum Overview

Year 7

During Year 7 students have six lessons of Science a fortnight. Two topics a term are completed on a rota.

<u>Autumn Term</u>



Biology: Cells – Explores the different types of cells within plants and animals including their parts, functions and adaptations. Pupils have the opportunity to use microscopes to view slides that they will prepare in lesson. The topic continues into looking at tissue, organs and organ

systems with a specific focus on the reproductive system. Aspects of puberty, fertilisation and pregnancy are also taught at this point.



Chemistry: Matter - Explores the fundamentals of chemistry whilst introducing and developing practical skills. Students will carry out practicals involving separation techniques including filtration, crystallisation and distillation.

Spring Term



Chemistry: Reactions – Explores different types of reactions and materials produced by reactions. There is a significant practical element within this topic. Students will be working on variables and tables of results throughout this topic.



Physics: Forces – Explores the types of forces in the world around is and the impact these forces have on different objects in different situations. Pupils investigate Hooke's Law as part of this topic developing both practical skills and method writing skills.

Summer Term



Biology: Ecology – Explores the environment and the ecosystems that live within it. This topic includes the opportunity to experiment using quadrats and pooters on the playing field.

Physics: Space – Explores our solar system and how it works as well as explaining how things that are happening in space affect our seasons, days and the phases of the moon.

Year 8

During Year 8 students have six lessons of Science a fortnight. Two topics a term are completed on a rota.

Autumn Term



Chemistry: Solutions – Explores solubility, saturation and the separation techniques. Students have the opportunity to develop their table drawing and graph drawing skills as part of their practical skill development.



Physics: Energy – Explore energy stores and transfers and relate this to renewable and nonrenewable energy resources. Students practically investigate light.

Spring Term



Biology: Organ Systems - Explores a variety of organ systems and the specialised cells that help them carry out their function.



Physics: Electricity – Explores electrical circuits and their components. Students have the opportunity to investigate the effect of magnetism and electromagnetism, developing their table and graph skills within this topic.

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Summer Term



Biology: Disease & Evolution – Explores infections and diseases caused by viruses, bacteria and fungi. It continues by describing how the immune system works and the use of vaccines. Variation and survival in a species is explored leading to natural selection and evolution.



Chemistry: Principles of Chemistry – Explores the states of matter and the effect that thermal energy has on the particles.



Science Project – Students work in groups to research, plan, investigate and report on a Scientific investigation of their choice. Friends and family are invited to view the work on an open evening.

Year 9

During Year 9 students have six lessons of Science a fortnight. Students have three teachers, one for each of the disciplines in Science. This is our transition year preparing students to start GCSE.

Autumn Term



Biology: Cells – Explores eukaryotic and prokaryotic cells, whilst looking more closely at DNA and processes that happen within the cell.

Chemistry: Atoms & the Periodic Table – Explores atoms, ions and the reactivity of the groups of the Periodic Table.



Physics: Particles – Explores the three states of matter and how density varies. Students investigate density developing their method writing skills as well as their measurement and recording skills.

Spring Term



Biology: Human Health – Explores pathogens, how to fight them and non-communicable diseases. The effect of alcohol and drugs on the body is also explored within this topic.



Chemistry: Bonding – Compares the three types of bonding and their properties.



Physics: Energy – Explores, mathematically, energy stores, transfers and the conservation of energy. The impact of different energy resources is explored.

Summer Term



Biology: Ecology – Explores biodiversity and the factors that affect this. Students practically investigate the school environment and consider waste management and land use.



Chemistry: Earth and Atmosphere – Explores the structure of the Earth and its evolving atmosphere. Factors affecting climate change and other pollutants are considered.



Physics: Electricity – Explores electrical circuits and electricity in the home. Students get the opportunity to wire a plug and learn how to interpret electricity bills.