



Marshall's Park Academy - Curriculum Overview



Subject: Science

Year Group: 7

Curriculum/Subject Leader: ZST

Academic Year: 23/24

During Year 7, students will begin to explore and understand new and exciting topics in Science. This will be achieved through a mixture of theoretical and practical-based lessons that will develop their knowledge and skills in the study of Science.

TERM 1	TERM 2	TERM 3
<p>KNOWLEDGE/SKILLS</p> <p>Knowledge/topics:</p> <p>Unit 1 Biology: Organisms (movement and cells)</p> <p>Unit 2 Chemistry: Matter (states of matter, melting, freezing and boiling, diffusion, gas pressure, solutions and solubility, separating mixtures and solutions)</p> <p>Unit 3 Physics: Forces (Balanced and unbalanced forces, speed, distance-time graphs, forces at a distance)</p> <p>Unit 4 Physics: Energy (food and fuels, energy resources, energy and power, energy conservation and dissipation)</p>	<p>KNOWLEDGE/SKILLS</p> <p>Knowledge:</p> <p>Chemistry: Reactions (acids and alkali, indicators and pH, neutralisation, making salts, reactions with metals and non-metals)</p> <p>Physics: Electromagnets (Potential difference, resistance, series and parallel circuits, current, static charge)</p> <p>Physics: Waves (sound waves, the ear and hearing, light, reflection and refraction, the eye, vision and colour)</p>	<p>KNOWLEDGE/SKILLS</p> <p>Knowledge:</p> <p>Biology: Genes (variation, evolution, adolescence, reproductive systems, menstrual cycle and fertilisation and development)</p> <p>Biology: Ecosystems (food chains, competition, flowers and pollination, seed dispersal, fertilisation and germination)</p>

Skills:

- AO1: Demonstrate knowledge and understanding of: scientific ideas; scientific techniques and procedures.
- AO2: Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures.
- AO3: Analyse information and ideas to: interpret and evaluate; make judgments and draw conclusions; develop and improve experimental procedures.

KEY ASSESSMENTS	KEY ASSESSMENTS	KEY ASSESSMENTS
<p>HALF TERM 1</p> <p>Baseline test</p> <p>HALF TERM 2</p> <p>End of unit test including units: Organisms, matter and Forces – 1hr</p>	<p>HALF TERM 2</p> <p>End of unit test including units: Energy, Reactions and Electromagnets – 1hr</p>	<p>HALF TERM 2</p> <p>End of unit test including units: Waves, Genes and Ecosystems – 1hr</p> <p>End of year test – 1hr</p>

Extended reading suggestions and links to external resources:

<http://www.physics4kids.com/>

<http://www.biology4kids.com/>

<http://www.chem4kids.com/>

<https://www.bbc.com/bitesize/subjects/zng4d2p>

Revision guide suggestion: Letts KS3 Success Science Complete coursebook (age 11-14)

The Skeleton Inside You by Philip Balestrino

Lost in the Solar System (The Magic School Bus, #4) by Joanna Cole