MEADOW PARK SCHOOL

Year 8 Curriculum Overview: Science

Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Photosynthesis (Biology) – the process of photosynthesis, plant adaptations and the importance of photosynthesis for life on Earth. **Forces** (Physics) – balanced and unbalanced forces, motion, friction and gravity.	**Chemical Reactions** (Chemistry) – indicators, signs of chemical reactions and simple chemical equations. **Breathing and Gas Exchange** (Biology) – the structure and function of the lungs and how gases are exchanged in the body.	**Metals and Acids** (Chemistry) – reactions of metals with acids, reactivity and the production of hydrogen gas. **Respiration** (Biology) – aerobic and anaerobic respiration and the release of energy in living organisms.	**Electromagnets** (Physics) – magnetic fields, electromagnets and their uses. **Inheritance and Evolution** (Biology) – variation, inheritance, natural selection and evolution.	**Waves** (Physics) – wave properties, sound waves and how waves transfer energy.	**Ecology** (Biology) – ecosystems, food webs and environmental interactions. **The Earth and Space** (Physics) – the structure of the Earth, the solar system and space. **Acids and Alkalis** (Chemistry) – pH scale, neutralisation and everyday uses of acids and alkalis.

Assessment	Key Concepts/ Skills	Reading
Students complete Knowledge Checks at the end of each topic to assess their understanding. Teachers provide feedback to help students reflect on their learning and make improvements. Assessment focuses on applying knowledge, using scientific vocabulary accurately, and explaining scientific ideas clearly.	Throughout the year students develop important scientific skills, including: • Working scientifically and planning investigations • Making observations and recording results • Analysing data and drawing conclusions • Interpreting graphs and scientific diagrams • Using scientific vocabulary accurately • Applying knowledge to explain real-world phenomena	Students develop their scientific literacy through reading scientific texts, case studies, and explanations of real-world scientific discoveries. Students practise interpreting diagrams, graphs, and written information to build confidence in reading scientific material. Students are taught the BUG strategy to help them approach exam questions effectively: • B – Box the command word • U – Underline key information in the question • G – Glance back at **the question** to check that the answer fully addresses what has been asked This supports students in developing strong exam technique and clear written responses.

Enrichment	Careers	Useful resources and revision
Students have opportunities to take part in enrichment activities such as: • Science Club • British Science Week activities • STEM challenges and competitions	Throughout the curriculum, students are introduced to careers that use science, including: • Medicine and healthcare • Engineering and technology • Environmental science	Students can support their learning using: • **Sparx Science** (weekly homework) • Knowledge organisers and revision materials • Teacher resources and recommended websites

• Practical investigations and demonstrations	• Research and laboratory science These links help students understand how science connects to real-world careers and future opportunities.	• Educational science videos and reading materials