MEADOW PARK SCHOOL

# Year 9 Curriculum Overview: Science

| Autumn Term 1 | Autumn Term 2 | Spring Term 1 | Spring Term 2 | Summer Term 1 | Summer Term 2 |
|---|---|---|---|---|---|
| **Cell Structure and Transport** (GCSE Biology) – structure of plant and animal cells, specialised cells, diffusion, osmosis and active transport. | **Digestion** (Biology) – the digestive system, enzymes and nutrient absorption.<br><br>**Metals and Acids** (Chemistry) – reactions between metals and acids, reactivity and the production of hydrogen gas. | **Inheritance and Evolution** (Biology) – genetic variation, natural selection and evolution.<br><br>**Ecology** (Biology) – ecosystems, food webs and environmental interactions.<br><br>**Chemical Reactions** (Chemistry) – types of chemical reactions and identifying reaction changes. | **Waves** (Physics) – properties of waves, sound waves and how waves transfer energy. | **Organisation** (GCSE Biology) – structure and function of the heart and plant transport systems.<br><br>**Chemistry of the Atmosphere** (GCSE Chemistry) – composition of the atmosphere and environmental changes.<br><br>**Energy Demands** (GCSE Physics) – energy resources, energy use and sustainability. | **RSE: Contraception and STIs** – understanding reproductive health, contraception methods and sexually transmitted infections. |

| 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:<br>• Working scientifically and planning investigations<br>• Making observations and recording results<br>• Analysing data and drawing conclusions<br>• Interpreting graphs and scientific diagrams<br>• Using scientific vocabulary accurately<br>• 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. |
| **Enrichment** | **Careers** | **Useful resources and revision** |
| Students have opportunities to take part in enrichment activities such as:<br>• Science Club<br>• British Science Week activities<br>• STEM challenges and competitions<br>• Practical investigations and demonstrations | Throughout the curriculum, students are introduced to careers that use science, including:<br>• Medicine and healthcare<br>• Engineering and technology<br>• Environmental science<br>• Research and laboratory science<br>These links help students understand how science connects to real-world careers and future opportunities. | Students can support their learning using:<br>• **Sparx Science** (weekly homework)<br>• Knowledge organisers and revision materials<br>• Teacher resources and recommended websites<br>• Educational science videos and reading materials |