



Long-Term Curriculum Overview: Science GCSE

Key Stage(s): 4

Curriculum Lead: Laura Allard

Academic Year: 25/26

Curriculum Intent

Our curriculum aims to nurture the whole child, supporting emotional wellbeing, resilience, and positive mental health. We focus on creating safe, inclusive environments where pupils with SEMH needs can thrive academically and personally. The curriculum is personalised and underpinned by strong relationships and consistency.

Curriculum Implementation

- Structured Routine: Clear, consistent lessons to support the reduction of anxiety and increase engagement.
- Therapeutic Approaches: Use of Zones of Regulation.
- Adapted Curriculum: Use of accessible activities and adapted scaffolding to meet the needs of all learners.
- Environment: Calming, sensory-aware settings.

Curriculum Impact

- Pupils develop emotional literacy and self-regulation.
- Increased engagement and attendance.
- Reduced behavioural incidents.
- Positive relationships with peers and adults.
- Preparation for transitions and independence.

Term	Topic / Learning Focus	Links towards EHCP Outcomes	Independent Skills Development	Assessment / Reflection of Learning	Resources / Programmes Used
Autumn 1	Atoms, compounds and States of Matter	<p>Communication and Interaction: Use of scientific vocabulary in discussions and structured writing.</p> <p>Cognition and Learning: Understanding atomic structure and states of matter through models and experiments.</p> <p>Social, Emotional and Mental Health: Group tasks to build confidence and resilience.</p> <p>Sensory/Physical Needs: Use of tactile resources and visual aids to support engagement.</p>	Supports analytical thinking, collaboration, and communication through practical science tasks.	Written tasks, practical observations, peer feedback, and quizzes.	Atomic models, visual diagrams, scaffolded worksheets, Zones of Regulation visuals.
Autumn 2	Health, Disease and the Development of Medicine	<p>Communication and Interaction: Structured discussions on health and medicine using key terminology.</p> <p>Cognition and Learning: Exploring disease mechanisms and medical advancements.</p> <p>Social, Emotional and Mental Health: Promotes empathy and understanding of health challenges.</p> <p>Sensory/Physical Needs: Use of visual timelines and simplified diagrams.</p>	Encourages independent research, critical thinking, and personal responsibility.	Case studies, group presentations, written reflections.	Health posters, medical models, scaffolded notes, communication boards.
Spring 1	Waves and Radiation	<p>Communication and Interaction: Describing wave properties and radiation effects using structured formats.</p>	Promotes exploration, expressive	Multimedia presentations, written tasks, observation logs.	Wave kits, radiation diagrams, visual aids, sensory tools.

		<p>Cognition and Learning: Applying physics concepts to real-world scenarios.</p> <p>Social, Emotional and Mental Health: Builds curiosity and emotional engagement with science.</p> <p>Sensory/Physical Needs: Interactive simulations and tactile wave models.</p>	communication, and problem-solving.		
Spring 2	Separating Mixtures, Breaking Down Substances	<p>Communication and Interaction: Explaining separation techniques and chemical breakdowns using visuals.</p> <p>Cognition and Learning: Conducting experiments and analysing results.</p> <p>Social, Emotional and Mental Health: Encourages teamwork and perseverance.</p> <p>Sensory/Physical Needs: Use of safe, hands-on materials and visual supports.</p>	Supports independence in scientific inquiry and data interpretation.	Lab reports, peer feedback, visual checklists.	Separation kits, chemical models, scaffolded experiment sheets.
Summer 1	Cells, Genetics, Inheritance and Modification	<p>Communication and Interaction: Structured discussions on genetics and inheritance.</p> <p>Cognition and Learning: Understanding cell functions and genetic principles.</p> <p>Social, Emotional and Mental Health: Promotes self-awareness and identity exploration.</p> <p>Sensory/Physical Needs: Use of</p>	Encourages self-reflection, sequencing, and scientific reasoning.	Concept maps, written reflections, group discussions.	Genetic diagrams, cell models, visual aids, reflective journals.

		diagrams, models, and sensory-friendly materials.			
Summer 2	Forces, Movement and Energy	<p>Communication and Interaction: Sharing findings on forces and energy using structured formats.</p> <p>Cognition and Learning: Applying physics principles to movement and energy systems.</p> <p>Social, Emotional and Mental Health: Builds confidence through practical success.</p> <p>Sensory/Physical Needs: Use of movement-based experiments and visual supports.</p>	Supports application of knowledge, independence, and expressive skills.	Practical demonstrations, observation notes, self-assessment checklists.	Force meters, energy models, scaffolded worksheets, sensory resources.