



Science Year 7

Intent : Science curriculum intent: As a school our curriculum inspires students to want to know more, understand more and be able to do more. In science we intend to harness the innate desire in young people to want to know more about the world and use this to help them understand how the strands of science learning fit into the big picture. We intend to help the students develop into learners who can see a problem and work both independently and together to find a solution. We recognise that all young people are scientists, and we aim to enable them to develop these skills. Students will enter year 7 naturally curious about science and what it involves, they will end the year able to work safely and competently in a science lab.



	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 7 Units	7AA safety and Skills 7A cells, tissue, organs and systems	7E mixtures and Separation 7I energy 7B sexual reproduction in animals	7B sexual reproduction in animals (cont.) 7F acids and alkalis 7J Current electricity	7C Muscles and bones 7G The particle model 7K Forces	7K Forces (cont.) 7D ecosystems 7 H atoms, elements and molecules	7L Sound (7L) Projects
Key Content	7AA – Introduction to safety and the skills needed to work in a lab. 7A – The hierarchical organisation of multicellular organisms. The structure and function of cells in plants and animals.	7E - mixtures, solutions and separation techniques. 7I - stores of energy are needed to make most things happen. Non-renewable fuels and renewable energy resources. 7B The human reproductive system and sexual reproduction in humans including biological changes during puberty such as menstruation.	7B The human reproductive system and sexual reproduction in humans including biological changes during puberty and menstruation. 7F acids and alkalis, hazards, risks, acids, alkalis, indicators, neutralization, and their applications in everyday life. 7J current electricity, electrical circuits, including their components, measurements, types, and safety considerations.	7C Muscles and bones, the human locomotor, breathing, and circulatory systems, along with the effects of drugs on the body. 7G The particle model, explaining the properties of solids, liquids, and gases, along with related concepts like Brownian motion and diffusion. 7K forces, forces, their effects, and related concepts in physics.	7K forces, forces, their effects, and related concepts in physics. 7D ecosystems, habitats, adaptations, and interactions between organisms and their environments. 7H atoms, elements, compounds, metals, non-metals, chemical reactions, and data presentation	7L sound, vibrations, waves, hearing, uses of sound, and comparing wave types The end of year projects will develop confident lab skills.
Literacy	Use conventions in writing (such as ordered subheadings, ordered lists). Key word sheet 7A	Key word sheets 7E, 7I and 7B	Key word sheets 7B,7F and 7J	Key word sheets 7C, 7G and 7K	Key word sheets 7K,7D and 7H	Key word sheets 7L
Knowledge organiser	7AA safety and Skills 7A cells, tissue, organs and systems	7E mixtures and Separation 7I energy 7B sexual reproduction in animals	7B reproduction in animals 7F acids and alkalis 7J current electricity	7C muscles and bones 7G the particle model 7K forces	7K forces 7D ecosystems 7H atoms and molecules	7L sound
Assessment	Units A, E and I are in assessment two.		Units B, F and J are in assessment three.	Units G, K and C are in assessment four.	The end of year assessment will cover all the modules studied this year.	

GCSE AO Link (or other) if applicable	In science the assessment objectives are: AO1 Demonstrate knowledge and understanding. AO2 Apply knowledge and understanding. AO3 Analyse information and ideas. These are all covered in each block of three modules.					
Homework	One piece of homework, set on Seneca, a fortnight. This should take up to 30 minutes.					
CEIAG – STEM careers that relate to these topics.	<i>Biomedical Scientist, Lab Technician, Healthcare Assistant</i> Understanding lab safety and cell biology is essential in medical labs and hospitals.	<i>Chemical Engineer, Energy Analyst, Midwife</i> Separation techniques are used in chemical industries; energy knowledge applies to renewable energy careers; reproduction links to healthcare and education.	<i>Pharmacist, Electrician, Geneticist</i> Acids and alkalis are key in pharmaceuticals; electricity is vital in engineering and trades; reproduction knowledge supports careers in biology and medicine	Physiotherapist, Materials Scientist, Mechanical Engineer Muscle and bone knowledge supports sports science and therapy; particle models are used in materials research; forces are foundational in engineering.	Ecologist, Physicist, Civil Engineer Ecosystems link to environmental science; atomic theory is key in chemistry and physics; forces apply to construction and design.	Sound Engineer, Audiologist, Acoustic Consultant Exploring sound connects to careers in music production, hearing health, and designing spaces for sound control.
Enrichment	Science club is open to all KS3 students.					