

Curriculum Map 2023-24

Year 8 (please note the order of topics may vary when classes have more than one teacher)

Half term	Unit title with hyperlink to scheme of work	Unit summary	Skills & content covered	Skills & content revisited	Links to GCSE skills and content	Summary of formative marking, feedback and student response	Summative assessment schedule, including assessment criteria
Autumn 1	Reproduction	Biology: Reproduction in humans and in plants.	CONTENT: structure and function of male and female reproductive systems, the menstrual cycle, gametes, fertilisation, gestation and birth (including the effect of maternal lifestyle on the foetus). Structure of a flower, wind and insect pollination, fertilisation, seed and fruit formation and dispersal. SKILLS: Investigation - seed dispersal focussing on evaluations (making investigations accurate, precise, repeatable and reproducible)	KS2: Animals (including humans) Year 7: Cells, working scientifically,	B1 - cells; B5 - hormones in reproduction; B6 - reproduction;	working scientifically "seed dispersal investigation" write up.	end of topic test
Autumn 2	Periodic Table	Chemistry: The arrangement of the elements in the Periodic Table, and their properties.	CONTENT: physical & chemical properties of different elements. The principles underpinning the Medeleev Periodic Table, periods & groups. Metals and non-metals and their properties.	KS2: Properties and changes in materials; Year 7: Particles	C1 - atomic structure and the periodic table; P4 - atomic structure	Homework task	end of topic test
	Chemical Reactions	Chemistry: Reactions of atoms and molecules to make new substances	CONTENT: chemical reactions as the rearrangement of atoms. Representing chemical reactions using formulae and equations. Combustion, thermal decomposition, oxidation and displacement reactions. SKILLS: Investigation - energy in fuels focussing on drawing conclusions from a bar chart.	KS2: properties and changes in materials; Year 7: working scientifically; Year 8: periodic table.	C2 - Bonding, structure and properties of matter; C4 - chemical changes	working scientifically "energy in fuels" write up.	end of topic test
Spring 1	Climate Change	Chemistry: A literacy based topic on the causes, effects and solutions for climate change	CONTENT: The carbon cycle. The composition of the atmosphere. The production of carbon dioxide by human activity and the impact on climate. SKILLS: reading and assimilating scientific information and scientific writing skills.	Year 7: Energy & Solar System. Year 8: Chemical reactions	C9 - Chemistry of the atmosphere; B7 - ecology	marking in booklet	end of topic essay assessment
Spring 2	Motion & Pressure	Physics: Forces & motion (how to describe motion, pressure, moments and machines). Biology: The skeletal & muscular system (as example of levers and pivots)	CONTENT: Describing motion (speed, distance and time, graphs, relative motion). Pressure in fluids (air pressure, atmospheric pressure, pressure in liquids). Pressure in solids (calculate using a formula). Moments (simple machines which require smaller force to move objects; levers and pivots). The skeletal and muscular systems (the structure and functions of the human skeleton, biomechanics of the muscular and skeletal systems, the function of muscles, including antagonistic muscles). SKILLS: deriving equations and calculations. Working scientifically in investigation (TBC)	KS2: Forces; Year 7: Forces, working scientifically	P5 - Forces	working scientifically write up	end of topic test

	Electricity & Magnetism	Physics: current electricity, static electricity, magnetism and the concept of field in which forces act between opposite charges or poles.	CONTENT: Current electricity as the flow of charged particles (current in circuits (series and parrallel), potential difference and resistance in circuits (including insulators and conductors)).Static electricity as the separation of charged particles (including the idea of electrical fields and the non-contact forces acting within them). Magnetism (poles, attraction & repulsion and the magnetic fiels between them where non-contact forces acting within them, the earth's magnetism, compasses and navigation, electromagnetism). SKILLS: Deriving equations and calculations. Investigation - making electromagnets.	KS2: Electricity & Circuits; KS2: magnets & forces; Year 7: working scientifically	P2 - Electricity; P7 Magnetism & Electromagnetism	working scientifically write up	end of topic test
Summer 1	Acids & Alkalis	Chemistry: Acids and Alkalis - their properties and reactions	CONTENT: Properties of acids and alkalis and every day examples. Chemical properties of metal oxides and non-metal oxides which make them acidic or alkaline. Neutralisation reactions. The pH scale and indicators. Reactions of acids and metals (producing a salt and hydrogen) and acids and alkalis (producing a salt and water). SKILLS: Investigation - indigestion tablets	Year 8: Chemical reactions, working scientifically	P4 - Chemical Changes	Working scientifically write up	end of topic test
Summer 2	Ecology	Biology: Ecosystems, photosynthesis and evolution	CONTENT: relationships in an ecosystem, interdependence and food webs. How organisms are affected by their environment; plastic pollution. Photosynthesis; its reactants and products and the dependence of almost all life on this reaction. Adaptations of leaves to photosynthesis. SKILLS: Investigation - field work; sampling techniques.	KS2; Living things and their habitats, KS2 Evolution and Inheritance	B6 - Inheritance, variation and evolution; B7 - Ecology	homework task	end of topic test