Science
Year 8 curriculum map

Year 8	T1	T2	T3	T4	T5	T6
Content / Topic for Term	• Organisms • Matter	• Organisms (cont.) • Forces • Matter (cont) • Ecosystem processes	• Forces (cont) • Reactions • Ecosystem processes (cont) • Energy	• Reactions (cont) • Electricity and magnetism • Energy (cont) • Earth	• Electricity and magnetism (cont) • Genes • Earth (cont) • Waves	• Genes (cont)
Key Knowledge for acquisition, recall and application in assessment or exam	**Teacher 1** Organisms • gas exchange and breathing • drugs • alcohol and smoking • nutrients and healthy diets • food tests • digestive system **Teacher 2** Matter • atoms and elements • compounds • chemical formulae	**Teacher 1** Organisms (cont) • enzymes and bacteria in digestion Forces • friction and drag • squashing and stretching • turning forces • pressure in gases • pressure in liquids **Teacher 2** Matter (cont) • elements of group 7 • elements of group 0	**Teacher 1** Forces (cont.) • stress on solids Reactions • atoms in chemical reactions • combustion • thermal decomposition • conservation of mass **Teacher 2** Ecosystem processes (cont) • investigating photosynthesis • plant minerals	**Teacher 1** Reactions (cont) • exothermic and endothermic • energy level diagrams • bond energy Electricity and magnetism • magnets and magnetic fields • electromagnets **Teacher 2** Energy (cont) • energy transfer: particles Earth • carbon cycle	**Teacher 1** Electricity and magnetism (cont) • using electromagnets Genes • natural selection and Darwin • extinction • biodiversity • inheritance and DNA **Teacher 2** Earth (cont) • recycling Waves • sound and water waves	**Teacher 1** Genes (cont) • genetics • genetic modification Revisit earlier topics Including Year 7 review and spaced learning **Teacher 2** Revisit earlier topics Including Year 7 review and spaced learning

	• polymers • the periodic table • elements of group 1	Ecosystem processes • aerobic respiration • anaerobic respiration • biotechnology • photosynthesis • leaves	Energy • work, energy and machines • energy and temperature	• global warming • climate change • extracting metals (part 1) • extracting metals (part 2)	• radiation and energy • modelling waves	
Key skills to apply in assessment or exam	• Using key scientific terminology • Plotting line graphs • Scientific calculations (maths) • Laboratory safety	• Using key scientific terminology • Identify scientific equipment • Using microscopes • Laboratory safety • Identifying and using equipment • Identifying chemical hazards and risk	• Using key scientific terminology • Making observations • Laboratory safety • Identifying and using equipment • Identifying chemical hazards and risk	• Using key scientific terminology • Making observations • Identifying scientific equipment • Building circuits • Understanding models • Articulating complex scientific ideas	• Using key scientific terminology • Respond to written questions • Presentations of information • Understanding models • Articulating complex scientific ideas • Collecting and handling data	• Using key scientific terminology • Explaining observations
Title of Knowledge Organiser	8.3 - breathing 5.3 – elements 5.4 – the periodic table	1.3-1.4 contact forces and pressure 9.3 - respiration	6.3-6.4 – types of reactions and chemical equations 3.3-3.4 – work and heating and cooling	2.3-2.4 – magnetism and electromagnets 7.3-7.4 – climate and earth resources	10.3-10.4 – evolution and inheritance 4.3-4.4 – wave effects and properties	See all previous kos