Headline Topics

Chemistry

Year	Term 1	Term 2	Term 3
7	Matter 1	Reactions 1	Earth and Atmosphere 1
8	Matter 2	Reactions 2	Earth and Atmosphere 2
9	Atomic Structure	Bonding and structure	Energy, Rates & Atmosphere
10	Sustainability	Chemical Analysis	Organics
11	(Organics &) Chemical changes	Calculations	EXAM PERIOD
12	ɔmic structu / ng and stru / Calculations / Redox I	Inorganics / Energetics I / Organics I	MAT I / Kinetics I / ɔria I/II/Aci / Energetics II
13	Redox II / nsition Met / Organics II	Kinetis II / MAT II / Organics III	EXAM PERIOD

Key	Topic areas
	Matter/Atomic structure/Periodic Table
	Bonding/Reactions/ Chemical changes
	Earth/Atmosphere/ Resources
	Calculations

Physics

Year	Term 1	Term 2	Term 3
7	Forces 1 (Kinematics)	Electricity 1 (Fields 1)	Energy 1
8	Forces 2 (Dynamics)	Magnetics and Astrophysics (Fields 2)	Waves and Light
9	Forces 3 (Mechanics) / Energy 2	Particle Model of Matter	Electricity 2 (Circuits)
10	Forces 4 (Kinematics) / Waves	Atomic Structure and Nuclear Physics	Electricity 3 (Fields and Advanced Circuits)
11	Forces 5 (Dynamics) / Electromagnetism	Astrophysics (Triple Only)	EXAM PERIOD
12	Forces 6 (Mechanics) / Electrics	Materials / Wave Mechanics	Quantum Mechanics (waves) / Forces 7 (Advanced Mechanics)
13	Field Mechanics / Thermo-dynamics	Nuclear and Particle Physics / Cosmology / Oscillations	EXAM PERIOD

Key	Topic areas
	Forces
	Electrics
	Energy
	Waves
	Astrophysics
	Matter
	Nuclear and Atomic

Biology

Year	Term 1	Term 2	Term 3
7	Organisms 1	Ecosystems & Energy 1	Inheritance 1
8	Organisms 2	Ecosystems & Energy 2	Inheritance 2
9	Unit 1- Cells / Unit 2- Organisation		Unit 3- Infection & Response
10	Unit 3- Infection and Response / Unit 4 Bioenergetics	Unit 5- Homeostasis	
11	Unit 6- Inheritance, Variation, Evolution	Unit 7- Ecology	Exam Period
12	Unit 1- Biomolecules / Unit 2- Cell Biology	Unit 3-Exchange in Organisms / Unit 4- Genetic Diversity	Exchange in / Exam Period / Responses to / Genetics, Populatio
13	Unit 5- Energy Transfer / Unit 6- Response to Change	Unit 7- Genetics,Populations / Unit 8- Gene Expression	Exam Period

Key	Topic areas
	Structure & Function of Organisms
	Growth, Development & Inheritance
	Organisms & their Environment
	Health & Disease
	Variation, Classification & Evolution

Chem Full

Year	Term 1				Term 2			Term 3			
7	**Matter 1**				**Reactions 1**			**Earth and Atmosphere 1**			
	Particle model				Metals and Non Metals			Early atmosphere			
	States of Matter				Acids			Atmosphere today			
	Diffusion				Alkalis			Fuels and combustion			
	Changes in state				Neutralisation			Global warming			
	Separating Mixtures				Metals and Acids			Humans effect on the environment			
	Distillation				Metal Oxidation			Sustainability			
	Chromatography				Displacement & reactivity of metals			Recycling			
8	**Matter 2**				**Reactions 2**			**Earth and Atmosphere 2**			
	Periodic Table				Endo/Exo reactions			Igneous rocks			
	Group Chemistry (metals)				Investigating energy			Metamorphic rocks			
	Group Chemistry (non-metals)				Catalysts			Sedimentary rocks			
	Patterns in the periodic Table				Combustion			Rock cycle			
	Elements & Compounds 1				Good Fuels			Earths Structure			
	Elements & Compounds 2				Thermal Decomposition			Extraction from the earth			
	Polymers				Explaining changes			Ceramics and composites			
9	**Atomic Structure**				**Bonding and structure**			**Energy/Rates/Atmosphere**			
	Structure of an atom				Types of Bonding			Endo/exo			
	Isotopes				Ionic bonding			Energy and Temp change			
	Electron configurations				Ionic compounds			Reaction profiles			
	Periodic Table				Covalent bonding			Bond enthalpies			
	PT development				Coveelnt substances			Calculating rate			
	Group 1				Allotropes of carbon			Factors affecting rate			
	Group 7				Polymers			Investigating Rate			
	Group 7 reactions				Metallic bonding and structure			Activation energy			
	Group 0				Properties of metals & alloys			Equilibria & Le Chatelliers			
	Separating techniques				States of Matter			Early atmosphere			
								Current atmosphere			
								Greenhous gases			
								Human activities			
								Products of combustion			
10	**Atmosphere/sustainability**				**Chemical Analysis**			**Organics**			
	Sustainability				Purity and separation			Crude oil			
	Water & water treatment				Chromatography			Fractional Distillation			
	Alternative metal extraction				Tests for gases			Cracking			
	LCAs				Flame tests			Alkenes			
	Recycling				Metal hydroxide tests			Alcohols			
	Corrosion				Anion tests			Carboxylic acids			
	Alloys				Instruments and spectroscopy			Addition polymerisation			
	Ceramics & composites				Transition metals	**Separate Science content catch up from Year 9 topics**		Condensation polymerisation			
	Haber process				Nanoparticles			Amino acids			
	Fertilisers				Fuel Cells & Batteries			DNA			
11	**(Organics &) Chemical changes**				**Calculations**			**EXAM PERIOD**			
	Metals & metal oxides				Conservation of mass						
	Reactivity of metals				RAM						
	Extraction of metals				Concentrations (basic)						
	Metals & acids				Moles						
	Neutralisation				Calculating Amounts						
	pH scale				Percentage yield						
	Titrations				Atom economy						
	Electrolysis				Concentration calculations						
	Half equations										
12	**Atomic structure**	**Bonding and structure**	**Calculations**	**Redox I**	**Inorganics**	**Energetics I**	**Organics I**	**MAT I**	**Kinetics I**	**Equilibria I/II/Acid base**	**Energetics II**
	Subatomic particles & the PT	Ionic bonding	Amounts of substances	Oxidation numbers	Group 1	Enthalpy change	Hom series & Func groups	Mass Spectrometry	Collision therory	Dynamic Equilibrim	Lattice energy
	Mass spectrometry	Ionic structure	Empirical and molecular formulae	Half equations	Group 2 properties	Reaction profiles	Nomenclature	Infrared spectroscopy	Calculating rate	Le Chatelliers	Born Haber cycles
	Isotopes & Ar	Covalent bonding	Ionic equiations	Redox equations	Group 2 patterns	Definitions	Isomerism	Combustion analysis	Maxwell Boltzmann	Kc	Polarisation
	Electron configuration & orbital theory	covalent structures	Reacting masses		Group 2 reactions	Q=MCT	Fuels & combustion		Catalysts & reaction profiles	Kp	Solubility
	Ionisation energies	Allotropes of carbon	pV=nRT		Group 7 properties	Hess's Law	Reactions of Alkanes			Factors affecting Equilibria	Entropy
	Periodicity	Metallic bonding & structure	Titration calculations		Group 7 reactions	Hess cycles	Reactions of Alkenes			Acid Base theory	Gibbs Free energy
		Intermolecular forces	Experimental Techniques		Ion tests	Bond enthalpies	Addition Polymerisation			pH definition	Feasibility and relationships (G/S/K)
		Shapes of molecules	Percentage yield				Halogenoalkanes			Kw	
		Polarity	Atom Economy				Alcohols			Ka	
		Solubility								Titrations & indicators	
										Buffers	
13	**Redox II**	**Transition Metals**	**Organics II**		**Kinetis II**	**MAT II**	**Organics III**	**EXAM PERIOD**			
	Standard Electrode potentials	Chemical Properties	Chirality		Experimental techniques	Mass spectrometry	Benzene				
	Electrochemical cells	Complex ions	Carbonyl compounds		conc/time graphs	C NMR	Reactions of Benzene				
	E cell calulations	Colour	Reactions of Carbonyls		Rate/conc graphs	H NMR	Fredel Crafts				
	Storgae and fuel cells	Chromium	Carboxylic acids		Order & rate reactions	Chromatography	Phenol				
	Redox titrations	Water and deprotonation	Reactions of Carboxylic acids		Order & mechanisms		Amines				
		Reactions	Acyl chlorides		Arrhenius		Amides				
		Catalytic activity	Esters				Polyamides				
			Condensation polymerisation and polyesters				Amino acids & TLC				
							Functional group tests				
							Organic synthesis				
							Grignards				
							Experimental Techniques				

Physics Full

Year	Term 1			Term 2			Term 3	
7	**Forces 1 (kinematics)**			**Electricity 1 (fields 1)**			**Energy 1**	
	Calculating speed			Static Electricity			Energy Resources	
	Identifying Variables			Current and Voltage			Conservation of Energy	
	Presenting data			Insulators and Conductors			The Joule (and the Calorie)	
	Graphing distance-time and speed-time			Series and Parallel Circuits			Conduction and Convection	
	Relative motion			Ohm's Law			Colour and Temperature	
	Gravity and weight						Energy Transfers	
8	**Forces 2 (dynamics)**			**Magnetic and Astro (fields 2)**			**Waves and light**	
	Balanced and unbalanced			Magnetic Fields			What is a wave?	
	Drag forces			Electromagnets			Measuring waves	
	Stretching and Compression			The Sun and Inner Planets			Light as a wave	
	Solid and Fluid Pressure with calculations			Galaxies and the Universe			Colour	
	Sinking and floating			Days and Seasons			Sound waves	
	Physical work and machines			Phases of the Moon			Ultrasound	
9	**Forces 3 (Mechanics)**	**Energy 2**		**Matter**			**Electricity 2**	
	Vectors and Scalars	Potential Energy		Density			Electric Charge	
	Forces	Kinetic Energy		Changes of State			Electric Current	
	Balanced and unbalanced	Work Done and Energy Transfer		Internal Energy			Electric Potential / Voltage	
	Heavy or Massive (Weight)	Power		Specific Heat Capacity (Redux)			Series and Parallel Circuits	
	Resultant Forces	Specific Heat Capacity		Latent Heat			Ammeters and Voltmeters	
	Forces on Springs	Efficiency		Particle Motion in Gases			Resistance	
		Dissipation		Pressure in Gases				
		Global Energy Supplies						
10	**Forces 4 (kinematics)**	**Waves**		**Nuclear and Atomic**			**Electricity 3 (Fields and Advanced Circuits)**	
	Speed/Velocity	Transverse and Longitudinal		The Structure of the Atom			Series and Parallel Circuits (Redux)	
	Acceleration	Measuring Wave Speeds		Rutherford's Experiment			Investigative Circuits	
	D-t Graphs	Reflection and Refraction		Radioactive Decay			Circuit Components (Diodes, LDRs, etc)	
	V-t Graphs	Sound Waves		Background Radiation			Control Circuits	
	Calculations of Motion	Ultrasound (Triple)		Nuclear Radiation			Electricity in the Home	
	Resultant Forces (Redux)	Seismic Waves (Triple)		Radioactive Half-Life			Transmitting Electricity	
		The EM Spectrum		Medical Uses (Triple)			Power and Electricity	
		Colour (Triple)		Nuclear Fission/Fusion (Triple)				
		Lenses, Images, Ray Diagrams (Triple)						
		Black-Body Radiation (Triple)						
		Temperature of the Earth (Triple)						
11	**Forces 5 (Dynamics)**	**Electromagnetism**		**Astrophysics (Triple Only)**			**EXAM PERIOD**	
	Moments (Triple)	Magnetism and Magnetic Forces		The Solar System (Triple)				
	Levers and Gears (Triple)	Magnetic Fields		Orbits of Planets, Moons (Triple)				
	Pressure in the Fluid (Redux) (Triple)	Solenoids		Satellites (Triple)				
	Atmospheric Pressure (Triple)	Electromagnets (Triple)		The Sun and Other Stars (Triple)				
	Newton's Third Law	The Force on a Conductor, F=BIL		Main Sequence Stars (Triple)				
	Momentum	Electric Motors		Life Cycles of Stars (Triple)				
	Conservation of Momentum	Loudspeakers (Triple)		The Formation of Elements (Triple)				
	Collisions (Triple)	The Generator Effect (Triple)		Red-Shift (Triple)				
	Stopping Distances	Transformers (Triple		CMBR (Triple)				
12	**Forces 6 (Mechanics)**	**Electrics**	**Matter**	**Waves mechanics**			**Quantum Mechanics (Waves)**	**Forces 7 (Advanced**
	Velocity and Acceleration	Electric Current	Fluids	Types of Waves			Wave-Particle Duality	2-Dimensional Collisions
	Motion Graphs	Electrical Energy Transfer	Density and Upthrust	Wave Phase			The Photoelectric Effect	Further Collisions
	Adding Forces	Current and Voltage Relationships	Fluid Movement	Superposition			The Nature of the Photon	Circular Motion
	Moments	Resistivity	Drag	Standing Waves			Electron/Photon Interaction	Proofs for Circular Motion
	Newton's Laws	Conduction and Resistance	Terminal Velocity	Diffraction			Atomic Electron Energies	Centripetal Force
	Kinematics	Semiconductors	Hooke's Law	Wave Interference				Centripetal Accleration
	Resolving Vectors	Series and Parallel Circuits	Stress, Strain	Refraction				
	Projectile Motion	Kirchoff's Laws	The Young Modulus	Reflection, Total Internal Reflection				
	Gravitational and Kinetic Energies	Potential Dividers	Stress-Strain Graphs	Lenses				
	Work and Power	Emf and Internal Resistance		Image Formation (Ray Diagrams)				
	Linear Momentum	Power in Circuits		Polarization				
	Conservation of Momentum							
13	**Field Mechanics**	**Thermo- dynamics**	**Nuclear and Particle Physics**	**Cosmology**	**Oscillations**		**EXAM PERIOD**	
	Electric Fields	Heat and Temperature	The Nuclear Atom	Gravitational Fields	Simple Harmonic Motion (SHM)			
	Millikan and Coulomb	Internal Energy	Electrons	Gravitational Forces	Free and Forces Oscillations			
	Radial Electric Fields	Heat Transfer	Particle Accelerators	Starshine	SHM Energy			
	Coulomb's Law	Ideal Gas Behaviour	Particle Detectors	Stellar Classifications	SHM Maths			
	Capacitors	Kinetic Theory Equations	The Large Hadron Collider	Measuring Astronomical Distances	Resonance			
	Exponential Functions	Derivation of Kinetic Equations	Particle Interactions	The Age of the Universe	Damping			
	Magnetic Fields		The Particle Zoo	The Fate of the Universe				
	Electric Motors		The Standard Model					
	Magnetic Forces		4 Fundamental Forces					
	Generating Electricity/A.C.		Particle Reactions					
			Nuclear Radiation					
			Quark Flavours					
			Rate of Radioactive Decay					
			Fission and Fusion					
			Nuclear Power Stations					

Bio Full

Year	Term 1		Term 2		Term 3	
7	**Organisms 1**		**Ecosystems & Energy 1**		**Inheritance 1**	
	Cell Structure		Food Chains & Webs		Human Reproductive Systems	
	Microscopes		Interdependence		Pregnancy & Birth	
	Bacterial Cells		Predator/Prey Cycle		Menstrual Cycle	
	Role of Diffusion		Ecosystems vs habitat vs niche		Plant Reproductive Systems	
	Skeletal & Muscular Systems		Biodiversity		Seed dispersal	
			Pollination			
			Bioaccumulation			
8	**Organisms 2**		**Ecosystems & Energy 2**		**Inheritance 2**	
	Specialised cells/tissues/organs		Respiration- Aerobic & Anaerobic		DNA, genes, chromosomes	
	Gas Exchange System		Photosynthesis		Development of DNA	
	Effects of asthma/smoking on lungs				Species & Differences	
	Digestive System				Variation	
	Healthy Diet/lifestyle				Natural Selection & Evolution	
					Extinction & Fossils	
9	**Cells**		**Organisation**		**Infection & Response**	
	Cell Structure		Cells, tissues, organs		Pathogens & Disease	
	Investigating Cells- Microscopy		Digestion & Enzymes		Human Defences	
	Cell Division		Blood & Circulation		Treating Diseases	
	Cell Transport		Non-Communicable Disease		Plant Disease	
	DNA, genes, chromosomes		Plant Transport		Drug Development	
	Stem Cells					
10	**Infection & Response**		**Bioenergetics**		**Homeostasis & Response**	
	Pathogens & Disease		Photosynthesis		Homeostasis & Body Temperature	
	Human Defences		Rate of photosynthesis		Nervous System	
	Treating Diseases		Aerobic Respiration		The eye & brain	
	Plant Disease		Anaerobic Respiration		Endocrine System	
	Drug Development		Metabolism		Blood Glucose & Diabetes	
			Effects of exercise		Hormones & Reproduction	
					Plant Hormones	
11	**Inheritance 3**		**Ecology**		**EXAM PERIOD**	
	Sexual/Asexual Reproduction		Classification			
	DNA & Protein Synthesis		Ecosystems			
	Patterns of Inheritance		Biotic/Abiotic Factors			
	Variation & Evolution		Cycles- Carbon & Water			
	Natural Selection		Disrupting Ecosystems			
	Selective Breeding		Food Chains/Pyramids of Biomass			
	Genetic Engineering		Biodiversity			
			Food security & biotechnlogy			

	Unit 1- Biomolecules	Unit 2- Cell Biology	Unit 3-Exchange in Organisms	Unit 4- Genetic Diversity	Unit 3-Exchange in Organisms	Unit 6- Responses to Change
12	Introduction to biological molecules	Light microscopes	Calulations of surface area and volume	DNA and chromosomes	Heart structure and cardiac cycle	Survival and simple reponses to stimulus (taxis and kinesis)
	Carbohydrates - monosaccharides	Electron microscopes	Gas exchange in single celled organisms	Genes and the triplet code	Blood vessels	Plant growth factors (tropisms)
	Carbohydrates - disaccharides and polysaccharides	Microscope calculations	Gas exchange in insects and fish	Structure of RNA	Transport systems in plants	The reflex arc
	Starch, glycogen and celulose	Eukaryotic cell structure	Gas exchange in plants	Protein synthesis		
	Lipids	Cell specialisation and organisation	Limiting water loss in plants and insects	Mutations		
	Proteins	Prokaryotic cells and viruses	Structure of human gas exchange system	Meiosis and genetic variation		
	Enzymes	Mitosis and the Cell cycle	Mechanisms of breathing and gas exchange	Genetic diversity and adaptation		
	Rate of enzyme controlled reactions	Structure of cell membranes	The digestive system and enzymes	Types of selection		
	Enzyme inhibition	Diffusion, osmosis and active transport	Absorption of digested materials	Taxonomy		
	Structure of genetic material	Co-transport (absorption in the ileum)	Haemoglobin	Diversity in communities		
	DNA replication	Defence mechanisms	Transport by haemoglobin	Human inpact on diversity		
	ATP and energy	Phagocytes	Circulatory systems in mammels	Investigating diversity		
	Water and its functions	Cell mediated response	Heart structure and cardiac cycle			
		Humoral response	Blood vessels			
		Antibodies	Transport systems in plants			
		Vaccination				
		HIV				

	Unit 5- Energy Transfer	Unit 6- Responses to Change	Unit 7-Genetics,Populations & Ecosystems	Unit 8- Gene Expression	EXAM PERIOD
13	Overview of photosynthesis	Receptors	Monohybrid inheritance	Gene mutations	
	Light-dependent reaction	Control of heart rate	Dihybrid inheritance	Stem cells	
	Light-independenet reaction	Neurones and the nervous system	Probability and genetic crosses	Regulation of transcription and translation	
	Glycolysis	Resting membrane potential	Codominance and multiple alleles	Epigenetic control	
	Link reaction and krebs cycle	Action potentials	Sex-linkage and autosomal-linkage	Gene expression and cancer	
	Oxidative phosphorylation	Passage of an action potential	Epistasis	Genome projects	
	Anaerobic respiration	Speed of conductance	Population genetics and variation in phenotypes	Recombinant DNA technology	
	Energy transfers in ecosystems	Synapses (structure and transmission)	Natural selection	Creating DNA fragnments	
	Nutrient cycles	Skeletal muscles	Different forms of selection	In-vivo gene cloning	
	Uses of fertilisers and environmental impacts	Contraction of muscles	Isolation and speciation	In-vitro gene cloning	
		Homeostasis	Population in ecosystems	Locating genes, genetic screening and counselling	
		Feedback mechanisms	Competition	Genetic fingerprinting	
		Regulation of glucose	Predation		
		Diabetes and control	Investigating populations		
		Regulation of water (osmoregulation)	Succession		
		Nephrons	Conservation		
		Role of hormones in osmoregulation			

Year 7 Overview

Year 7	Term 1					Term 2			Term 3			
Topics	Introduction topic	**Organisms 1**	**Matter 1**	**Year 7 Assessment window 1**	**Forces 1 (Kinematics)**	**Ecosystems & Energy 1**	**Reactions 1**	**Electricity (Fields)**	**Inheritance 1**	**Energy 1**	**Year 7 Assessment window 2**	**Earth and Atmosphere 1**
Homework	1) SAM learning Homework i) Lab safety basics and hazard symbols Note this is only a short intro so only one homework is appropriate	1. Organisms spelling test (SMHW) 2. SAM learning tasks. i) Labelling animal and plant cells, ii) Movement (skeleton & muscles) 3. Revision for test	1. Matter spelling test (SMHW) 2. SAM learning tasks. i) Mixture (separating techniques), ii) Changes of state 3. Revision for test		1. Forces spelling test (SMHW) 2. SAM learning tasks. i) Speed, Distance time graphs, Relative Speed, ii) Weight, mass and gravity 3. Revision for test	1. Vocab lists and activity 2. SAM learning tasks. 3. Revision for test	1. Vocab lists and activity 2. SAM learning tasks. 3. Revision for test	1. Vocab lists and activity 2. SAM learning tasks. 3. Revision for test	1. Learning key word vocab task 2. SAM learning tasks. 3. Revision for test	1. Learning key word vocab task 2. SAM learning tasks. 3. Revision for test		1. Learning key word vocab task 2. SAM learning tasks. 3. Revision for test
Assessments	No Assessment	**End of unit Test (Approx end of cycle 3 - 8.10.21)**	**End of unit Test (Approx end of cycle 5 - 12.11.21)**	**Assessment will occur between 22.11.21 to 3.12.21 marking will follow**	**End of unit Test (Approx end of cycle 7.5 - 17.12.21)**	**End of unit Test (Approx end of cycle 10 - 4.2.22)**	**End of unit Test (Approx end of cycle 12 - 11.3.22)**	**End of unit Test (Approx end of cycle 14 - 22.4.22)**	**End of unit Test (Approx end of cycle 16 - 20.5.22)**	**End of unit Test (Approx end of cycle 18 - 24.6.22)**	**Assessment will occur between 13.6.21 to 24.6.21 marking will follow**	**End of unit Test (Approx end of cycle 20 - 22.7.22)**
Feedback By Teacher	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)*	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* **Written test feedback**	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* **Written test feedback**		*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* **Written test feedback**	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* **Written test feedback**	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* **Written test feedback**	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* **Written test feedback**	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* **Written test feedback**	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* **Written test feedback**		*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* **Written test feedback**
Main Interleaving	Safety links to working in labs	**Previous - KS-2 links. Next steps - Organisms 2, Cells and Organisation**	**Previous - KS2 links. Next steps - Matter 2.**		**Previous - KS2 links. Next steps - Forces 4 (Kinematics)**	**Previous - KS2 links. Next steps - Ecology**	**Previous - key stage 2. Next steps- Reactions 2.**	**Previous - KS2 links. Next steps - Electricity (circuits)**	**Previous - KS2 links. Next steps - Cells and inheritance**	**Previous - KS2 links. Next steps - Forces 4 (Kinematics)**		**Previous - KS2 links. Next steps - Reactions 1 and Earth and atmos 1**
Reading for pleasure		Does anything eat wasps By Mick O'Hare (New Scientist)	Whats Chemistry All About By Frith and Gillespie (Usbourne Books)		Secret Science: The amazing world beyond your eyes - Dara O' Briain	Does anything eat wasps By Mick O'Hare (New Scientist)	Whats Chemistry All About By Frith and Gillespie (Usbourne Books)	Secret Science: The amazing world beyond your eyes - Dara O' Briain	Does anything eat wasps By Mick O'Hare (New Scientist)	Secret Science: The amazing world beyond your eyes - Dara O' Briain		Whats Chemistry All About By Frith and Gillespie (Usbourne Books)

Chemistry

Key	Topic areas
	Matter/Atomic structure/Periodic Table
	Bonding/Reactions/ Chemical changes
	Earth/Atmosphere/ Resources
	Calculations

Physics

Key	Topic areas
	Forces
	Electrics
	Energy
	Waves
	Astrophysics
	Matter
	Nuclear and Atomic

Biology

Key	Topic areas
	Structure & Function of Organisms
	Growth, Development & Inheritance
	Organisms & their Environment
	Health & Disease
	Variation, Classification & Evolution

Year 8 Overview

Year 8	Term 1				Term 2			Term 3			
Topics	**Organisms 2**	**Matter 2**	**Year 8 Assessment window 1**	**Forces 2 (Dynamics)**	**Ecosystems & Energy 2**	**Reactions 2**	**Magnetics and Astrophysics (Fields 2)**	**Inheritance 2**	**Waves and Light**	**Year 8 Assessment window 2**	**Earth and Atmosphere 2**
Homework	1. Organisms 2 spelling test (SMHW) 2. SAM learning tasks. i) Effects of Diet and Exercise, ii)Your lungs and airways 3. Revision for test	1. Matter 2 spelling test (SMHW) 2. SAM learning tasks. i) Atoms and Elements, ii) Ceramics 3. Revision for test		1. Forces 2 spelling test (SMHW) 2. SAM learning tasks. i) Race car derby , ii) Turning and pressure 3. Revision for test	1. Vocab lists and activity 2. SAM learning tasks. 3. Revision for test	1. Vocab lists and activity 2. SAM learning tasks. 3. Revision for test	1. Vocab lists and activity 2. SAM learning tasks. 3. Revision for test	1. Learning key word vocab task 2. SAM learning tasks. 3. Revision for test	1. Learning key word vocab task 2. SAM learning tasks. 3. Revision for test		1. Learning key word vocab task 2. SAM learning tasks. 3. Revision for test
Assessments	**End of unit Test (Approx end of cycle 2.5 - 1.10.21)**	**End of unit Test (Approx end of cycle 5 - 12.11.21)**	**Assessment will occur between 8.11.21 to 19.11.21 marking will follow**	**End of unit Test (Approx end of cycle 7.5 - 17.12.21)**	**End of unit Test (Approx end of cycle 10 - 4.2.22)**	**End of unit Test (Approx end of cycle 12 - 11.3.22)**	**End of unit Test (Approx end of cycle 14 - 22.4.22)**	**End of unit Test (Approx end of cycle 16 - 20.5.22)**	**End of unit Test (Approx end of cycle 18 - 24.6.22)**	**Assessment will occur between 13.6.21 to 24.6.21 marking will follow**	**End of unit Test (Approx end of cycle 20 - 22.7.22)**
Feedback By Teacher	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* **Written test feedback**	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* **Written test feedback**		*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* **Written test feedback**	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* **Written test feedback**	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* **Written test feedback**	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* **Written test feedback**	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* **Written test feedback**	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* **Written test feedback**		*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* **Written test feedback**
Main Interleaving	**Previous- Organism 1. Next steps - Organisation, Infection and response**	**Previous- Matter 1. Next steps - Atomic structure**		**Previous - Forces 1. Next steps - Forces 3 (Mechanics), Forces 5 (Dynamics)**	**Previous - Organisms 1, Ecosystems and energy 1. Next steps - Bioenergetics.**	**Previous - Matter 1 and Reactions 1. Next steps - Energy/rates/atmosphere**	**Previous - Fields 1. Next steps - Electromagnetism, Astrophysics**	**Previous - Organisms 1, Inheritance 1. Next steps - Inheritance 3, Ecology**	**Previous - Key stage 2. Next steps - Waves**		**Earth and atmosphere 1**
Reading for pleasure	Why penguins feet don't freezes By Mick O'Hare (New Scientist)	All About Chemistry By Robert Winston (DK Books)		Women in Science: 50 Pioneers who changed the World - Rachel Ignotofsky	Why penguins feet don't freezes By Mick O'Hare (New Scientist)	All About Chemistry By Robert Winston (DK Books)	Women in Science: 50 Pioneers who changed the World - Rachel Ignotofsky	Why penguins feet don't freezes By Mick O'Hare (New Scientist)	Women in Science: 50 Pioneers who changed the World - Rachel Ignotofsky		All About Chemistry By Robert Winston (DK Books)

Chemistry

Key	Topic areas
	Matter/Atomic structure/Periodic Table
	Bonding/Reactions/ Chemical changes
	Earth/Atmosphere/ Resources
	Calculations

Physics

Key	Topic areas
	Forces
	Electrics
	Energy
	Waves
	Astrophysics
	Matter
	Nuclear and Atomic

Biology

Key	Topic areas
	Structure & Function of Organisms
	Growth, Development & Inheritance
	Organisms & their Environment
	Health & Disease
	Variation, Classification & Evolution

Year 9 Overview

Chemistry

Year 9	Term 1		Term 2	Term 3	
Topics	Atomic structure	Year 9 Assessment window 1	Bonding and Structure	Energy, Rates (& Atmosphere)	Year 9 Assessment window 2
Homework	1. Vocab lists and activity 2. Worksheet/PPQs x 2 3. Revision for test x2 4. Test review & actions x2		1. Vocab lists and activity 2. Worksheet/question x 3 3. Revision for test 4. Test review & actions	1. Vocab lists and activity 2. Worksheet/question x 2 3. Revision for test x 3 4. Test review & actions x 3	
Assessments	End of unit Test (Approx end of cycle 7.5 - 17.12.21)	Assessment will occur between 22.11.21 to 3.12.21 marking will follow	End of unit Test (Approx end of cycle 13.5 - 1.4.22)	End of unit Test (atmosphere) End of unit Test (energy/rates) (Approx end of cycle 20 - 22.7.22)	Assessment will occur between 13.6.22 to 24.6.22 marking will follow
Feedback By Teacher	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)*	*Feedback following assessment 1*	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* Written homework feedback x 1	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)*	*Feedback following assessment 1*
	Written test feedback x2		Written test feedback	Written test feedback x 3	
Main Interleaving	Previous - Matter 1 & 2 (KS3). Next steps - This topic is fundamental to all chemistry topics and interleaving will occur in many other topics		Previous - Atomic structure. Next steps - As with to atomic structure topic this is fundamental to all chemistry topics and interleaving will occur in many other topics	Previous- Reactions 2 (KS3) Atmosphere 2 (KS3) & Bonding. Next steps - Energtics 1, Kinetics 1	
Reading for pleasure	How Science Works & The Science Book (DK Books)				

Key	Topics
	Matter/Atomic structure/Periodic Table
	Bonding/Reactions/ Chemical changes
	Earth/Atmosphere/ Resources
	Calculations

Physics

Year 9	Term 1		Term 2		Term 3	
Topics	Forces 3 (Mechanics)	Year 9 Assessment window 1	Energy 2	Matter	Year 9 Assessment window 2	Electricity 2 (circuits)
Homework	1. Vocab lists and activity 2. Worksheet/PPQs x 2 3. Revision for test x2 4. Test review & actions x2		1. Vocab lists and activity 2. Worksheet/question x 2 3. Revision for test 4. Test review & actions	1. Vocab lists and activity 2. Worksheet/question x 2 3. Revision for test 4. Test review & actions		1. Vocab lists and activity 2. Worksheet/question x 2 3. Revision for test x 3 4. Test review & actions x 3
Assessments	End of unit Test (Approx end of cycle 5 - 12.11.21)	Assessment will occur between 22.11.21 to 3.12.21 marking will follow	End of unit Test (Approx end of cycle 12-11.3.22)	End of unit Test (Approx end of cycle 15 - 6.5.22)	Assessment will occur between 13.6.22 to 24.6.22 marking will follow	End of unit Test (Approx end of cycle 20 - 22.7.22)
Feedback By Teacher	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)*	*Feedback following assessment 1*	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* Written homework feedback x 1	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)*	*Feedback following assessment 1*	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)*
	Written test feedback x2		Written test feedback	Written test feedback		Written test feedback x 3
Main Interleaving	Previous - Forces 2 (dynamics). Next steps - Forces 4 (kinematics), Forces 5 (dynamics), Forces (year 12)		Previous - Energy 1. Next steps - Kinetics 2, Thermodynamics	Previous- Energy 1 and 2, Waves 1, chemistry. Next steps - Matter 2		Previous - Electricity 1 (fields). Next steps - Electricity 3 (Fields and Advanced Circuits), Electromagnetism, Electrics (year 12)
Reading for pleasure	The boy who harnessed the wind - William Kamkwamba and Bryan Meale					

Key	Topic areas
	Forces
	Electrics
	Energy
	Waves
	Astrophysics
	Matter
	Nuclear and Atomic

Biology

Year 9	Term 1		Term 2	Term 3	
Topics	Cells	Year 9 Assessment window 1	Organisation	Infection & Response	Year 9 Assessment window 2
Homework	1. Keywords sheet via SMHW or Teams 2. Magnifiation core practical write up 3. Worksheet/question x 2 4. Test revison and then Test review & actions x2		1. Vocab lists and activity 2. Worksheet/question x 3 3. Revision for test 4. Test review & actions	1. Vocab lists and activity 2. Worksheet/question x 3 3. Revision for test x 2 4. Test review & actions x 2	
Assessments	End of unit Test (Approx end of cycle 5 - 12.11.21)	Assessment will occur between 22.11.21 to 3.12.21 marking will follow	End of unit Test (Approx end of cycle 14.5 - 1.4.22)	End of unit assessment for this unit will happen at the beginning of year 10	Assessment will occur between 13.6.22 to 24.6.22 marking will follow
Feedback By Teacher	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)*	*Feedback following assessment 1*	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* Written homework feedback x 1	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)*	*Feedback following assessment 1*
	Written test feedback x2		Written test feedback	Written test feedback	
Main Interleaving	Previous - Organisms 1, Inheritance 1. Next steps - This topic is fundamental to all biology topics and interleaving will in vitually all topics		Previous - Organisms 1 and 2, . Next steps - Infection and response, Exchanges in organisms, Response to exchange	Previous- Organisms 2. Next steps - Cellular Biology	
Reading for pleasure	How to fossilise your hamster By Mick O'Hare (New Scientist)				

Key	Topic areas
	Structure & Function of Organisms
	Growth, Development & Inheritance
	Organisms & their Environment
	Health & Disease
	Variation, Classification & Evolution

Year 10 Overview

Chemistry

Year 10	Term 1	Term 2		Term 3	
Topics	Sustainability	Year 10 Assessment window 1	Chemical Analysis	Organics	Year 10 Assessment window 2
Homework	1. Vocab lists and activity 2. Worksheet/PPQs x 2 3. Revision for test 4. Test review & actions		1. Vocab lists and activity 2. Worksheet/question x 2 3. Revision for test x2 4. Test review & actions x2	1. Vocab lists and activity 2. Worksheet/question x 2 3. Revision for test x 2 4. Test review & actions x 2	
Assessments	End of unit Test (Approx end of cycle 7.5 - 17.12.21)	Assessment will occur between 10.1.22 to 21.1.22 marking will	End of unit Test (Approx end of cycle 13.5 - 1.4.22)	End of unit Test (Approx end of cycle 20 - 22.7.22)	Assessment will occur between 20.6.22 to 1.7.22 marking will
Feedback By Teacher	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* Written homework feedback x 1	*Feedback following assessment 1*	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)*	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)*	*Feedback following assessment 2*
	Written test feedback x1	Written test feedback x2		Written test feedback x 2	
Main Interleaving	Previous - Reactions 2 & Earth/Atmos 2 (KS3), Atomic structure & Bonding (yr 9). Next steps - Bonding and structure, Energetics 2		Previous - Matter 1, Atomic structure and Bonding (year 9). Next steps - MAT 1, MAT 2	Previous- Energy/rate/Atmosphere. Next steps - Organics 1 and 2	
Reading for pleasure	Periodic Tales By Hugh Aldersey-Williams and Around the World in 18 Elements By David Scott				

Key	Topics
	Matter/Atomic structure/Periodic Table
	Bonding/Reactions/ Chemical changes
	Earth/Atmosphere/ Resources
	Calculations

Physics

Year 10	Term 1		Term 2		Term 3	
Topics	Forces 4 (Kinematics)	Waves	Year 10 Assessment window 1	Atomic Structure and Nuclear Physics	Electricity 3 (Fields and Advanced Circuits)	Year 10 Assessment window 2
Homework	1. Vocab lists and activity 2. Worksheet/PPQs x 2 3. Revision for test x2 4. Test review & actions x2	1. Vocab lists and activity 2. Worksheet/question x 2 3. Revision for test 4. Test review & actions		1. Vocab lists and activity 2. Worksheet/question x 2 3. Revision for test 4. Test review & actions	1. Vocab lists and activity 2. Worksheet/question x 2 3. Revision for test x 3 4. Test review & actions x 3	
Assessments	End of unit Test (Approx end of cycle 5 - 12.11.21)	End of unit Test (Approx end of cycle 12-11.3.22)	Assessment will occur between 10.1.22 to 21.1.22 marking will	End of unit Test (Approx end of cycle 15 - 6.5.22)	End of unit Test (Approx end of cycle 20 - 22.7.22)	Assessment will occur between 20.6.22 to 1.7.22 marking will follow
Feedback By Teacher	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* Written homework feedback x 1	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)*	*Feedback following assessment 1*	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)*	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)*	*Feedback following assessment 2*
	Written test feedback	Written test feedback x2		Written test feedback	Written test feedback x 2	
Main Interleaving	Previous - Forces 1 (Kinematics), Forces 3 (dynamics). Next steps - Forces 5 (dynamics), Forces (year 12)	Previous - Waves and light. Next steps - Wave mechanics		Previous- Atomic structure (chemistry). Next steps - Nuclear and particle physics	Previous - Electricity 1 (fields) , Electricity 2 (circuits). Next steps - Electromagnetism, Electrics (year 12)	
Reading for pleasure	Bomb: The race to build - and steal - the world's most dangerous weapon - Steve Sheinki					

Key	Topic areas
	Forces
	Electrics
	Energy
	Waves
	Astrophysics
	Matter
	Nuclear and Atomic

Biology

Year 10	Term 1		Term 2	Term 3	
Topics	Infection & Response	Bioenergetics	Year 10 Assessment window 1	Homeostasis & Response	Year 10 Assessment window 2
Homework	1. Revision for test 2. Test review & actions Note that this topic follows on from the end of year 9.	1. Vocab lists and activity 2. Worksheet/question x 3 3. Revision for test 4. Test review & actions		1. Vocab lists and activity 2. Worksheet/question x 3 3. Revision for test x 2 4. Test review & actions x 2	
Assessments	End of unit Test (Approx end of cycle 2 - 24.9.21)	End of unit Test (Approx end of cycle 11 - 25.2.22)	Assessment will occur between 10.1.22 to 21.1.22 marking will follow	End of unit assessment for this unit will happen at the beginning of year 11	Assessment will occur between 20.6.22 to 1.7.22 marking will
Feedback By Teacher	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)*	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* Written homework feedback x1	*Feedback following assessment 1*	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)*	*Feedback following assessment 1*
	Written test feedback	Written test feedback x2		Written test feedback x2	
Main Interleaving	Previous- Organisms 2. Next steps - Cellular Biology	Previous - Ecosystems and energy 2. Next steps - Energy transfers		Previous- Cells, Organisation. Next steps - Responses to change	
Reading for pleasure	This Book is Cruelty Free by Linda Newbery				

Key	Topic areas
	Structure & Function of Organisms
	Growth, Development & Inheritance
	Organisms & their Environment
	Health & Disease
	Variation, Classification & Evolution

Year 11 Overview

Chemistry

Year 11	Term 1		Term 2		Term 3
Topics	(Organics &) Chemical Changes	Year 11 Assessment window 1 (MOCKS)	Calculations	Year 11 Assessment window 1 (MOCKS 2)	EXAM PERIOD
Homework	1. Vocab lists and activity 2. Worksheet/PPQs x 2/3 3. Revision for test x 2/3 4. Test review & actions x 2/3		1. Vocab lists and activity 2. Worksheet/question 3. Revision for test x 2 4. Test review & actions x 2		Revision
Assessments	End of unit Test (Approx end of cycle 7.5 - 17.12.21)	Assessment will occur between 6.12.21 to 16.12.21 marking will follow	End of unit Test (Approx end of cycle 13.5 - 1.4.22)	Assessment will occur between 28.2.22 to 11.3.22 marking will follow	GCSE Summer EXAMS
Feedback By Teacher	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* Written homework feedback x 1	*Feedback following assessment 1*	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)*	*Feedback following assessment 1*	*Informal/verbal feedback on classwork and revision*
	Written test feedback x2		Written test feedback x2		
Main Interleaving	Previous - Reactions 1 (Yr 7) & Bonding (Yr 9), Atmosphere and Sustainability (Yr 10) . Next steps - Redox 1, Inorganics, Transition metals, Calculations		Previous - Atomic structure (Yr 9), Energy and Rates (Year 9). Next steps - Calculation (year 12)		
Reading for pleasure	A Short History of Everything By Bill Bryson				

Key	Topics
	Matter/Atomic structure/Periodic Table
	Bonding/Reactions/ Chemical changes
	Earth/Atmosphere/ Resources
	Calculations

Physics

Year 11	Term 1		Term 2		Term 3
Topics	Forces 5 (Dynamics)	Year 11 Assessment window 1 (MOCKS)	Electromagnetism	Astrophysics (Triple Only)	Year 11 Assessment window 1 (MOCKS 2)	EXAM PERIOD
Homework	1. Vocab lists and activity 2. Worksheet/PPQs x 2/3 3. Revision for test x 2 4. Test review & actions x 2		1. Vocab lists and activity 2. Worksheet/question 3. Revision for test x 2 4. Test review & actions x 2	1. Vocab lists and activity 2. Worksheet/question 3. Revision for test 4. Test review & actions		Revision
Assessments	End of unit Test (Approx end of cycle 5 - 26.11.21)	Assessment will occur between 6.12.21 to 16.12.21 marking will follow	End of unit Test (Approx end of cycle 11 - 25.2.22)	End of unit Test (Approx end of cycle 13.5 - 1.4.22)	Assessment will occur between 28.2.22 to 11.3.22 marking will follow	GCSE Summer EXAMS
Feedback By Teacher	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)*	*Feedback following assessment 1*	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)*	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)*	*Feedback following assessment 1*	*Informal/verbal feedback on classwork and revision*
	Written test feedback x2		Written test feedback x2/3			
Main Interleaving	Previous - Forces 1 (kinematics) , Forces 2 (Dynamics), Forces 3 (mechanics), forces 4 (kinematics). Next steps - Forces 6 (Yr 12), Forces 7 (Yr 12).		Previous - Electricity 1 (Fields), Electricity 2 (circuits) Next steps - Field Mechanics (year 13)	Previous - Magnetics and Astrophysics (Fields 2). Next steps - Cosmology		
Reading for pleasure	A black hole is not a hole - Carolyn Cinami Decristofano					

Key	Topic areas	
	Forces	
	Electrics	
	Energy	
	Waves	
	Astrophysics	
	Matter	
	Nuclear and Atomic	

Biology

Year 11	Term 1			Term 2		Term 3	
Topics	Homeostasis & Response	Inheritance 3	Year 11 Assessment window 1 (MOCKS)	Unit 7- Ecology	Year 11 Assessment window 1 (MOCKS 2)	Completing Unit 7- Ecology	EXAM PERIOD
Homework	1. Revision for test 2. Test review & actions	1. Vocab lists and activity 2. Worksheet/question 3. Revision for test x 2 4. Test review & actions x 2		1. Vocab lists and activity 2. Worksheet/question x2 3. Revision for test x 2 4. Test review & actions x 2		1. Vocab lists and activity 2. Worksheet/question 3. Revision for test x 2 4. Test review & actions x 2	Revision
Assessments	End of unit Test (Approx end of cycle 2 - 24.9.21)	End of unit Test (Approx end of cycle 8 - 7.1.22)	Assessment will occur between 6.12.21 to 16.12.21 marking will follow	End of unit Test (Approx end of cycle 14.5 - 1.4.22)	Assessment will occur between 28.2.22 to 11.3.22 marking will follow	End of unit Test (Approx end of cycle 14.5 - 1.4.22)	GCSE Summer EXAMS
Feedback By Teacher	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)*	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)*	*Feedback following assessment 1*	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* Written homework feedback x 1	*Feedback following assessment 1*	*Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)* Written homework feedback x 1	*Informal/verbal feedback on classwork and revision*
	Written test feedback x3			Written test feedback x2			
Main Interleaving	Previous- Cells, Organization. Next steps - Responses to change	Previous - Inheritance 2. Next steps - Unit 4-Genetic diversity, Unit 7- Genetics,Populations & Ecosystems, Unit 8- Gene Expression		Previous - Ecosystems & Energy 1. Next steps - Unit 4- Genetic Diversity, Unit 5- Energy Transfer, Unit 7-Genetics,Populations & Ecosystems		Previous - Ecosystems & Energy 1. Next steps - Unit 4- Genetic Diversity, Unit 5- Energy Transfer, Unit 7-Genetics,Populations & Ecosystems	
Reading for pleasure	The Selfish Gene by Richard Dawkins						

Key	Topic areas
	Structure & Function of Organisms
	Growth, Development & Inheritance
	Organisms & their Environment
	Health & Disease
	Variation, Classification & Evolution

F6 Chemistry

Year 12	Term 1				Term 2			Term 3				
Topics	Atomic structure	Bonding and structure	Calculations	Redox I	Year 12 assessment window 1	Inorganics	Energetics I	Organics I	MAT I	Kinetics I	Equilibria I/II/Acid base	Energetics II	Year 12 assessment window 2
Homework	Pre reading and independent study Past paper questions Core practical write up Revision for tests, Test actions and review					Pre reading and independent study Past paper questions Core practical write up Revision for tests, Test actions and review			Pre reading and independent study Past paper questions Core practical write up Revision for tests, Test actions and review				
Assessments	**End of unit test x 4** **Entry assessment (Early October)**				**Assessment will occur between 17.1.22 to 21.1.22 marking will follow**	**End of unit Test x 3**			**End of unit Test x 4** **End of year 12 (AS) exams**				**Assessment will occur between 20.6.22 to 1.7.22 marking will follow**
Feedback By Teacher	*Peer/verbal feedback on classwork and homeworks* **Written homework & core prac feedback**				*Feedback following assessment 1*	*Peer/verbal feedback on classwork and homeworks* **Written homework & core prac feedback**			*Informal/verbal feedback* **Written homework & core prac feedback**				*Feedback following assessment 2*
	Written test feedback x 4				**Written test feedback x 4**				**Written test feedback x 2**				
Main Interleaving	**These topic previously link to Atomic structure, Bonding, Calculations coved at GCSE. Next steps - These topic is fundamental to all chemistry topics and interleaving will occur in many other topics**					**Previous - Atomic struc/ Chem analysis (GCSE) Atomic struc/ Bonding/ Redox (term 1). Next steps - Transition metals**	**Previous - Energy (GCSE), Bonding/ Calcs (term 1) . Next steps- Energtics 2**	**Previous - Organics (GCSE), Bonding (term 1). Next steps Organics 2**	**Previous - Atomic Structure/ Organics I (Yr 12). Next steps - MAT 2**	**Previous- Rates (GCSE), Bonding/ Energetics I/ Calcs (Yr 12). Next steps- Kinetcis 2**	**Previous- Rates (GCSE), Inorganics, Calculations (Yr12).**	**Previous - Energtics I (Yr 12). Next steps - Kinetics 2**	
Reading for pleasure	**Periodic Tales By Hugh Aldersey-Williams; Around the World in 18 Elements By David Scott; A Short History of Everything By Bill Bryson**												

Key	Topics
	Matter/Atomic structure/Periodic Table
	Bonding/Reactions/ Chemical changes
	Earth/Atmosphere/ Resources
	Chemical Calculations

Year 13	Term 1				Term 2				Term 3
Topics	Redox II	Transition Metals	Organics II	Year 13 assessment window 1	Kinetis II	Year 13 assessment window 2	MAT II	Organics III	EXAM PERIOD
Homework	Pre reading and independent study Past paper questions Core practical write up Revision for tests, Test actions and review				Pre reading and independent study Past paper questions Core practical write up Revision for tests, Test actions and review		Pre reading and independent study Past paper questions Core practical write up Revision for tests, Test actions and review		Revision
Assessments	**End of unit test x 3** **Year 13 Assessment 1 (In class; November)**			**Assessment will occur between 17.1.22 to 21.1.22 marking will follow**	**End of unit Test x 3** **Year 13 Mocks (Late February)**	**Assessment will occur between 17.1.22 to 21.1.22 marking will follow**	**End of unit Test x 3** **Year 13 Mocks (Late February)**		**A level Summer EXAMS**
Feedback By Teacher	*Informal/verbal feedback* **Written homework & core prac feedback**			*Feedback following assessment 1*	*Informal/verbal feedback* **Written homework & core prac feedback**	*Feedback following assessment 2*	*Informal/verbal feedback* **Written homework & core prac feedback**		*Informal/verbal feedback on classwork, independent study and revision*
	Written test feedback x 4				**Written test feedback X4**				
Main Interleaving	**Previous - Redox I (Yr 12)**	**Previous - Redox I & II (Yr 12/13)**	**Previous- Organics I (Yr 12)**		**Previous- Kinetics I (Yr 12)**		**Previous- MAT I/ Organics I & II (Yr 12/13)**	**Previous- Organics I, II & III (Yr 12/13)**	
Reading for pleasure									

Key	Topics
	Matter/Atomic structure/Periodic Table
	Bonding/Reactions/ Chemical changes
	Earth/Atmosphere/ Resources
	Chemical Calculations

F6 Physics

Year 12	Term 1		Term 2			Term 3		
Topics	Forces 6 (Mechanics)	Electrics	Year 12 assessment window 1	Materials	Wave Mechanics	Quantum Mechanics (Waves)	Forces 7 (Advanced Mechanics)	Year 12 assessment window 2
Homework	Pre reading and independent study Past paper questions Core practical write up Revision for tests, Test actions and review			Pre reading and independent study Past paper questions Core practical write up Revision for tests, Test actions and review		Pre reading and independent study Past paper questions Core practical write up Revision for tests, Test actions and review		
Assessments	**End of unit test x 4** **Entry assessment (Early October)**		**Assessment will occur between 17.1.22 to 21.1.22 marking will follow**	**End of unit Test x 3**		**End of unit Test x 4** **End of year 12 (AS) exams**		**Assessment will occur between 20.6.22 to 1.7.22 marking will follow**
Feedback By Teacher	*Peer/verbal feedback on classwork and homeworks* **Written homework & core prac feedback**		*Feedback following assessment 1*	*Peer/verbal feedback on classwork and homeworks* **Written homework & core prac feedback**		*Informal/verbal feedback* **Written homework & core prac feedback**		*Feedback following assessment 2*
	Written test feedback x 4		**Written test feedback x 4**			**Written test feedback x 2**		
Main Interleaving	**Previous- Forces 3 (Mechanics), Forces 4 (kinematics). Next steps- Forces 7 (Advanced mechanics)**	**Previous - Electricity 1 (Fields), Electricity 2 (circuits), Electromagnetics. Next steps - Field Mechanics**		**Previous- Forces 3 (Mechanics), Matter. Next steps - Thermo-dynamics**	**Previous- Waves. Next steps - Quantum Mechanics (Waves)**	**Previous - Waves Mechanics**	**Previous - Forces 6 (Mechanics)**	
Reading for pleasure	What if? Serious scientific answers to absurd hypothetical questions - Randall Munroe							

Year 13	Term 1			Term 2				Term 3
Topics	Field Mechanics	Thermo- dynamics	Year 13 assessment window 1	Nuclear and Particle Physics	Year 13 assessment window 2	Cosmology	Oscillations	EXAM PERIOD
Homework	Pre reading and independent study Past paper questions Core practical write up Revision for tests, Test actions and review			Pre reading and independent study Past paper questions Core practical write up Revision for tests, Test actions and review		Pre reading and independent study Past paper questions Core practical write up Revision for tests, Test actions and review		Revision
Assessments	**End of unit test x 3** **Year 13 Assessment 1 (In class; November)**		**Assessment will occur between 17.1.22 to 21.1.22 marking will follow**	**End of unit Test x 3** **Year 13 Mocks (Late February)**	**Assessment will occur between 17.1.22 to 21.1.22 marking will follow**			**A level Summer EXAMS**
Feedback By Teacher	*Informal/verbal feedback* **Written homework & core prac feedback**		*Feedback following assessment 1*	*Informal/verbal feedback* **Written homework & core prac feedback**	*Feedback following assessment 2*	*Informal/verbal feedback* **Written homework & core prac feedback**		*Informal/verbal feedback on classwork, independent study and revision*
	Written test feedback x 4			**Written test feedback X4**				
Main Interleaving	**Previous- Electrics, Wave mechanics**	**Previous - Energy 2, Matter.**		**Previous- Nuclear and Atomic, Forces 6 and 7, Field mechanics**		**Previous - Astrophysics (Triple Only), Forces 6 (mechanics), Field**	**Previous - Forces**	
Reading for pleasure	Human Universe - Professor Brian Cox and Andrew Cohen							

F6 Biology

Year 12	Term 1		Term 2			Term 3		
Topics	Unit 1- Biomolecules	Unit 2- Cell Biology	Year 12 assessment window 1	Unit 4- Genetic Diversity	Unit 3-Exchange in Organisms	Year 12 assessment window 2	Unit 6- Responses to Change	Unit 7- Genetics,Populations & Ecosystems
Homework	Pre reading and independent study Past paper questions Core practical write up Revision for tests, Test actions and review			Pre reading and independent study Past paper questions Core practical write up Revision for tests, Test actions and review			Pre reading and independent study Core practical write up Past paper questions	
Assessments	**End of unit test x 2** **Entry assessment (Early October)**		**Assessment will occur between 17.1.22 to 21.1.22**	**End of unit Test x 2**		**Assessment will occur between 20.6.22 to 1.7.22 marking will**	**Assessments for these topic will occur in year 13 as both topics will be completed in year 13.**	
Feedback By Teacher	*Peer/verbal feedback on classwork and homeworks* **Written homework & core prac feedback**		*Feedback following assessment 1*	*Peer/verbal feedback on classwork and homeworks* **Written homework & core prac feedback**		*Feedback following assessment 2*	*Feedback on core practical work.*	
	Written test feedback x 2			**Written test feedback x 2**		**Written test feedback x 2**		
Main Interleaving	**These topic previously link to Cells topic covered at GCSE. Next steps - These topics are fundamental to all Biology topics and interleaving will occur in all other topics**			**Previous - Inheritance 3. Next steps - Unit 7- Genetics,Populations & Ecosystems, Unit 8- Gene Expression**	**Previous- Organisation. Next steps - Unit 5 Energy transfer, Unit 6 response to change**		**Previous- Homeostasis, Biolmolecules, Cell Biology, Exchange in organisms**	**Previous- Unit 4 Genetic Diversity. Next steps Unit 8- Gene Expression**
Reading for pleasure	**Unnatural Selection by Katrina van Grouw**							

Year 13	Term 1			Term 2			Term 3
Topics	Unit 5- Energy Transfer	Unit 6- Response to Change	Year 13 assessment window 1	Unit 7-Genetics,Populations & Ecosystems	Year 13 assessment window 2	Unit 8- Gene Expression	EXAM PERIOD
Homework	Pre reading and independent study Past paper questions Core practical write up Revision for tests, Test actions and review			Pre reading and independent study Past paper questions Core practical write up Revision for tests, Test actions and review		Pre reading and independent study Past paper questions Core practical write up Revision for tests, Test actions and review	Revision
Assessments	**End of unit test x 2** **Year 13 Assessment 1 (In class; November)**		**Assessment will occur between 17.1.22 to 21.1.22 marking will**	**End of unit Test** **Year 13 Mocks (Late February)**	**Assessment will occur between 17.1.22 to 21.1.22 marking will**	**End of unit Test**	**A level Summer EXAMS**
Feedback By Teacher	*Informal/verbal feedback* **Written homework & core prac feedback**		*Feedback following assessment 1*	*Informal/verbal feedback* **Written homework & core prac feedback**	*Feedback following assessment 2*	*Informal/verbal feedback* **Written homework & core prac feedback**	*Informal/verbal feedback on classwork, independent study and revision*
	Written test feedback x 3			**Written test feedback X4**			
Main Interleaving	**Previous - Bioenergetics, Biological molecules. Next steps - Unit 6- Response to Change**	**Previous- Homeostasis, Biolmolecules, Cell Biology, Exchange in organisms**		**Previous- Unit 4 Genetic Diversity. Next steps Unit 8- Gene Expression**		**Previous- Cell Biology, Unit 4- Genetic Diversity, Unit 7- Genetics,Populations & Ecosystems**	
Reading for pleasure	**Darwin Comes to Town: How the Urban Jungle Drives Evolution by Professor Menno Schilthuizen**						