# Headline Topics

Chemistry	,
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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	omic structing and stru <mark>Calculation:</mark> Redox I	Inorganics Energetics   Organics I	MAT I Kinetics I pria I/II/Aci nergetics I
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 1		Ter	m 2		Term 3			
7	Forces 1 (Kir	nematics)		Electricity		Energy 1				
8	Forces 2 (Dy	ynamics)		Magnetics and Ast	ields 2)	Waves and Light				
9	Forces 3 (Mechan	ics)		Energy 2	Particle	e Model of	Matter	Electricity 2 (Circuits)		
10	Forces 4 (Kinematics)			Waves Atomic Structure an Physics			Electricity 3 (Fields and Advanced Circuits)			
11	Forces 5 (Dynamics) Elec			ctromagnetism	Astrophys On		EXAM PERIOD			
12	Forces 6 (Mechanics)	Elec	trics	Materials	Wave Mechanics		Quantum Mechanics (waves)		Forces 7 (Advanced Mechanics)	
13	Field Mechanics Thermodynamics			Nuclear and Particle Physics	Cosmolog Oscillatio ns			EXAM PERIOD		

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

# Biology

Diology													
Year	Ter	m 1		Ter	m 2	Term 3							
7	Organ	isms 1		Ecosystems	& Energy 1	Inheritance 1							
8	Organ	isms 2		Ecosystems	& Energy 2		Inheri	tance 2					
9	Unit 1- Cells	5		Unit 2- Organisa	ntion	Unit 3- Infection & Response							
10	Unit 3- Infection and Response		Unit 4 Bio	energetics	nergetics Unit 5- I								
11	Unit 6- Inheritance,	Variation,		Unit 7- Ecology		Exam Period							
12	Unit 1- Biomolecules		ell Biology	Unit 3-Exchange in Organisms	Unit 4- Genetic Diversity	Exchange in	Exam Period	Response s to	Genetics, Populatio				
13	Unit 5- Energy Transfer		esponse to ange	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					

Year		Term 1				Term 2				Term 3		
Year	Matter 1	Term 1			Reactions 1	Term 2		Earth and Atmosphere 1		Term 3		
	Particle model				Metals and Non Metals			Early atmosphere				
	States of Matter				Acids			Atmosphere today				
	Diffusion				Δlkalis			Fuels and combustion				
7	Changes in state				Neutralisation			Global warming				
	Separating Mixtures				Metals and Acids			Humans effect on the en	vironment			
	Distillation				Metal Oxidation			Sustainability				
	Chromatography				Displacement & reactivity of	metals		Recycling				
	Matter 2				Reactions 2			Earth and Atmosphere 2				
	Periodic Table				Endo/Exo reactions			Igneous rocks				
	Group Chemistry (metals)				Investigating energy			Metamorphic rocks				
l .	Group Chemistry (non-metals)				Catalysts			Sedimentary rocks				
8	Patterns in the periodic Table				Combustion			Rock cycle				
	Elements & Compounds 1				Good Fuels			Earths Structure				
	Elements & Compounds 2				Thermal Decomposition			Extraction from the earth	1			
	Polymers				Explaining changes			Ceramics and composite	5			
	Atomic Structure				Bonding and structure				Ener	rgy/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		· · · · · · · · · · · · · · · · · · ·		
l	PT development				CoveeInt substances		·	Calculating rate				
l	Group 1		Allotropes of carbon			Factors affecting rate						
9	Group 7		Polymers			Investigating Rate						
l	Group 7 reactions				Metallic bonding and structu	ire		Activation energy				
l	Group 0				Properties of metals & alloy	i		Equilibria & Le Chatellier	S			
	Separating techniques				States of Matter			Early atmosphere				
l					1			Current atmosphere				
								Greenhous gases Human activities				
l					1			Human activities Products of combustion				
	Atmosphoro (sustains hillite)					Chemical Analysis		-				
l	Atmosphere/sustainability Sustainability				Purity and separation	Chemical Analysis		Organics Crude oil				
l	Water & water treatment							Fractional Distillation				
l	Alternative metal extraction				Chromatography Tests for gases			Fractional Distillation  Cracking				
l	LCAs				Flame tests			Alkenes				
10	Recycling				Metal hydroxide tests			Alcohols				
1 1	Corrosion				Anion tests			Carboxylic acids				
	Alloys				Instruments and spectrosco	OV		Addition polymerisation				
l	Ceramics & composites				Transition metals			Condensation polymerication				
	Haber process				Nanoparticles		Separate Science content	Amino acide				
l	Fertilisers				Fuel Cells & Batteries		catch up from Year 9 topics	DNA				
	(Organics &) Chemical changes				Calculations			EXAM PERIOD				
l	Metals & metal oxides				Conservation of mass							
	Reactivity of metals				RAM			]				
l	Extraction of metals				Concentrations (basic)			]				
11	Metals & acids				Moles			]				
	Neutralisation				Calculating Amounts			]				
	pH scale				Percentage yield			]				
l	Titrations				Atom economy			1				
l	Electrolysis				Concentration calculations		·	4				
	Half equations											
I	Atomic structure	Bonding and structure	Calculations	Redox I	Inorganics	Energetics I	Organics I	MATI	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	
l	Mass spectrometry	Ionic structure	Empirical and molecular formulae	Half equations	Group 2 properties	Reaction profiles	Nomenclature	Infrared spectroscopy	Calculating rate	Le Chatellliers	Born Haber cycles	
	Isotopes & Ar	Covalent bonding	Ionic equiations	Redox equations	Group 2 patterns	Definitions	Isomerism	Combustion analysis	Maxwell Boltzmann	Kc	Polarisation	
l	Electron configuration & orbital theory	covalent structures	Reacting masses	4	Group 2 reactions	Q=MCT	Fuels & combustion	4	Catalysts & reaction profiles	Kp	Solubility	
12	Ionisation energies	Allotropes of carbon	pV=nRT	4	Group 7 properties	Hess's Law	Reactions of Alkanes	4	1	Factors affecting Equilibria		
	Periodicity	Metallic bonding & structure	Titration calculations	-	Group 7 reactions	Hess cycles	Reactions of Alkenes	4		Acid Base theory	Gibbs Free energy	
l		Intermolecular forces	Experimental Techniques	4	Ion tests	Bond enthalpies	Addition Polymerisation	1		pH definition	Feasibility and relationships (G/S/K)	
		Shapes of molecules	Percentage yield	4			Halogenoalkanes	1		Kw Ka	<del> </del>	
		Polarity Solubility	Atom Economy	-			Alcohols	1		Titrations & indicators	<del> </del>	
l		Solubility	1		1	1		I	1	Buffers	<del> </del>	
<b> </b>	Redox II	Transition Metals	Organics II		Kinetis II	MAT II	Organics III	EXAM PERIOD	I .	<sub>1</sub> =ancia	-	
l	Standard Electrode potentials	Chemical Properties	Chirality		Experimental techniques	Mass spectrometry	Benzene					
l	Electrochemical cells	Complex ions			conc/time graphs	C NMR	Reactions of Benzene	1				
	E cell calulations	Colour	Reactions of Carbonyls	Rate/conc graphs	H NMR	Fredel Crafts	1					
l	Storgae and fuel cells	Chromium	Carboxylic acids		Order & rate reactions	Chromatography	Phenol	1				
	Redox titrations	Water and deprotonation	Reactions of Carboxylic acids		Order & mechanisms	1	Amines	1				
13		Reactions	Acyl chlorides		Arrhenius	1	Amides	1				
		Catalytic activity	Esters		1	1	Polyamides	1				
l			Condensation polymerisation and pol	yesters	]		Amino acids & TLC	]				
					7		Functional group tests	]				
			1				Organic synthesis					
l			1		1		Grignards	]				
	l	I			1	1	Experimental Techniques	1				
			<u> </u>									

Cauchaine general   Cancervation of Energy   Presenting data   Institution and Conditions   Cancervation of Energy   Cancervation of Energy   Presenting data   Institution and Conditions   Cancervation of Energy   Cancervation	Year		Term 1		I	Term 2	Term 3				
Circlosting speed  Constraints of the second				tics)							
Sensity Variables  Process of Spring  Process of Sp	7		,	-	Static Electricity			Energy Re			
Presenting data											
Gegleberg distance at one and spaced time  Checks the motion  Check and the motion  Check and standard control of the control											
Interior entation			ne					Conduction and Convection			
Proces 2 (Apparatics)	Ī										
The second process of confinement and compression and compress	(	Gravity and weight				<u> </u>		Energy Tra	nsfers		
Balanced and unbalanced Professional Complexistion Professional Complexisti											
Tongs forces    Stretchips and Compression   The Son and Inter Planets   Egist as a wave	Į.		s 2 (dynami	ics)		Magnetic and Astro (fields 2)				nd light	
B Steelung and Compression Colard and Full Orienter Colland and Full Orienter Balanced and unblankeed Uson Does and Full Orienter Colland and Full O											
Solid and Platification with activations collabors and ethic Universe Solid and Platification with an advantage Physical under and machines Physical University Physical University Physical Energy Physical University Physical Energy Physical University Physical Energy Physic	-										
Cinking and Rosting Physical Work and michanics Forces a Diffectionics Vector and Scalars Potential Energy Obersity Ober			nns						wave		
Process   Methodanics   Potential Energy   Detential Energy   Detention   Detect   Detention   Detect   Detention   Detect									ves		
Percent   Mechanics   Percental Incrept   Oessity   Oe											
Forces   Sentic Current   Changes of State   Sentic Current   Voltage State   Sentic Current   Senting State   Sentic Current   Senting State   Senting State				Energ			Matter				
Balanced and unbalanced Work Does and Energy Transfer Proces of Massive (Weight) Power Specific Read Capacity Latent Heart Resultant Forces Specific Read Capacity Latent Heart Resultant Forces Specific Read Capacity Latent Heart Resultant Forces Resistance Resistance Proces on Springs Efficiency Particle Motion in Gises Resistance Resistan				Potential Energy		Density					
Personal Process   Sepretary											
Resultant Forces   Specific Heat Capacity   Latent Heat   Ammeters and Voltmeter's   Forces on Springs   Efficiency   Particle Motion in Gases   Resistance											
Forces on Springs    Filiciency   Pressure in Gases   Pressure in Gases	9										
Dissipation   Pressure in Gases   Collabla Finerry Supplies   Su	ļ.									neters	
Clock Internation   Wave   Nuclear and Atomic   Electricity 3 (Fields and Adv   Speed/Velocity   Transverse and Longitudinal   The Structure of the Atom   Series and Azalial Circuits (Red   Acceleration   Measuring Wave Speeds   Rutherford's Experiment   Investigative Circuit Components (Diodes, LE   V Graphs   Sound Waves   Radiactive Decay   Circuit Components (Diodes, LE   V Graphs   Sound Waves   Radiactive Decay   Circuit Components (Diodes, LE   V Graphs   Sound Waves   Radiactive Decay   Circuit Components (Diodes, LE   V Graphs   Sound Waves   Radiactive Decay   Circuit Components (Diodes, LE   V Graphs   Calculations of Motion   Ultrasound (Triple)   Nuclear Radiation   Control Circuits   Reductive Part of the Components (Diodes, LE   V Graphs   Radiactive Decay   Circuit Components (Diodes, LE   V Graphs   Radiactive Decay   Circuits (Diodes   Circuits Red Radiation   Circuit Red Radiation   Circuits Red Radiation   C	ľ	rorces on springs							vezizique		
Speed/Working   Transverse and Longitudinal   The Structure of the Atom   Series and Parallel Circuits (Ref. of Spephs   Reflection and Referaction   Acceleration   Measuring Wave Speeds   Rutherford's Experiment   Investigative Circuits   Reflection and Referaction   Regional Reflection and Referaction   Regional Reflection and Referaction   Regional Regional Reflection and Reflection	- 1					i ressare in Gases			1		
Speed/Vision(ty)   Transverse and Longitudinal   The Structure of the Atom   Series and Parallel Circuits Federation   Measuring Wave Speeds   Subtraction   Sadioactive Decay   Circuit Components (Diodes, LE Criaghs   Sederation   Sadioactive Decay   Circuit Components (Diodes, LE Criaghs   Sound Waves   Sadigound Radation   Control Circuits   Control Circuits   Circuit Components (Diodes, LE Criaghs   Sound Waves   Sadioactive Decay   Circuit Components (Diodes, LE Criaghs   Sound Waves   Sadioactive Decay   Control Circuits   Circuits   Security   Circuits   Security   Control Circuits   Security   Color (Triple)   Security in the Home   Recultant Forces (Redux)   Security   Color (Triple)   Free and Electricity   Color (Triple)   Exercise, Images, Ray Diagrams (Triple)   Exercise and Gears (Triple)   Exercise (Triple)   Exercise (Triple)   Exercise and Gears (Triple)   Exercise and Gears (Triple)   Exercise and Gears (Triple)   Solenoids   Satellites (Triple)   Exercise and Gears (Triple)   Solenoids   Satellites (Triple)   Exercise and Gears (Tri	$\rightarrow$	Forces 4 (kinematics)			es	Nucle	ear and Atomic		Electricity 3 (Fiel	ds and Advanced Circ	cuits)
Acceleration Measuring Wave Speeds Butherford's Experiment (investigative Circuits of Foraphs Reflection and Refraction (in Sadioscher) (Circuits Components (Diodes, LT Corpus) (Circuits Counter) (Circuits Counter) (Circuits Counter) (Circuits Counter) (Triple) (in the Home Counter) (Circuits Counter) (Triple) (in the Home Counter) (Circuits Counter) (Triple) (Circuits Counter) (Circuits	7					Truck	a. a. a. A. Colline				
D-1 Graphs Reflection and Refraction Radioactive Decay Crown Components (Diodes, LE Ver Graphs Sound Waves Sound Wave Sound Waves Sound Wa											
V-l Graphs   Sound Waves   Background Radiation   Control Circuits											
Resultant Forces (Redux) Sesimic Waves (Triple) Redioactive Half-Life Transmitting Electricity  The FM Spectrum (Oolour (Triple) Nuclear Fission/Fusion (Triple) Power and Electricity  Leness, Images, Ray Diagrams (Triple) Black-Rody Radiation (Triple) Temperature of the Earth (Triple)  Person of Forces 5 (Dynamics)  Regular Forces (Dynamics)  Record of the Earth (Triple)  Roments (Triple) Magnetic Fredes Magnetic Fredes Droits of Planets, Moons (Triple) Pressure in the Fluid (Redux) (Triple) Newton's Tirir daw The Force on Conduction, FeBIL Newton's Tirir daw The Force on Conduction, FeBIL Outspeakers (Triple) Newton's Tirir daw The Force on Conduction, FeBIL Outspeakers (Triple) Resolution (Triple) Stopping Distances  Forces 6 (Mechanics) Pressure on the Fluid (Redux) (Triple) Newton's Tirir daw The Force on Conduction, FeBIL Newton's Tirir daw Momentum Electric Motors Life Cycles of Stars (Triple) Newton's Tirir daw Monentum Loudspeakers (Triple) The Generatory (Triple) Red-Shift (Triple) Stopping Distances  Forces 6 (Mechanics) Pressure of Mechanics (Marcel Pressure of Marcel	١	V-t Graphs									
Resultant Forces (Redux)    Sesimic Waves (Triple)   Redioactive Hall-Life   Fransmitting Electricity											
Colour (Triple)   Back-Body Radiation (Triple)   Back-Body R	-~ <u>F</u>	Resultant Forces (Redux)									
Lenses, Images, Ray Diagrams (Triple) Black-Body Radiation (Triple) Temperature of the Earth (Triple) Temperature of the Earth (Triple) Moments (Triple) Magnetism and Magnetic Freess Magnetism and Other Stars (Triple)  Electric Motors Lensers (Triple) Momentum Electric Motors Life Cycles of Stars (Triple) Momentum Loudspeakers (Triple) Levers and Green an Conductor, F-Bill. Momentum Loudspeakers (Triple) Momentum Loudspeakers (Triple) Levers and Other Stars (Triple) Momentum Loudspeakers (Triple) Life Cycles of Stars (Triple) Momentum Loudspeakers (Triple) Magnetism and Other Stars (Triple) Momentum Electric Motors Makendarics M									Power and Electricit	у	
Black-Body Radiation (Triple)   Temperature of the Earth (Triple)   Magnetism and Magnetis Forces   The Solar System (Triple)   Magnetism and Magnetis Forces   The Solar System (Triple)   Levers and Gears (Triple)   Magnetic Forces   The Solar System (Triple)   The Solar System (					-1-1	Nuclear Fission/Fusion (Triple)			-		
Temperature of the Earth (Triple)   Electromagnetism   Astrophysics (Triple Only)   DXAM PERIOD					nej				I		
Forces 5 (Dynamics)   Electromagnetism   Astrophysics (Triple only)	- 1								I		
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) Momentum Electric Motors Life Cycles of Stars (Triple) Conservation of Momentum Loudspeakers (Triple) The Generation of Electric Redishing (Triple) Collisions (Triple) The Generator Effect (Triple) Red-Shift (Triple) Stopping Distances Triple Transformers (Triple) Red-Shift (Triple)  **Forces 6 (Mechanics)** Velocity and Acceleration Electric Current Fluids Types of Waves Wave-Particle Duality 2-Dimensi Motion Graphs Motion Graphs Electrica Energy Transfor Density and Upthrust Wave Phase The Photoelectric Effect Further Adding Forces Current and Voltage Relationships Fluid Movement Superposition The Nature of the Photon Curcular Moments Resistivity Drag Standing Waves Electron/Photon Interaction Proofs for Excellent Projection Atomics Stars Standing Waves Electron/Photon Interaction Proofs for Excellent Projection Atomics Stars Standing Waves Electron/Photon Interaction Proofs for Excellent Projection Atomics Stars Standing Waves Electron/Photon Interaction Proofs for Excellent Projection Atomic Electron Energies Centrepts  **Resistivity** Series and Parallel Circuits** Stress, Strain Graphs Electron Density Stress, Strain Graphs Electron Momentum Prover of Electron Series and Parallel Circuits Stress, Strain Graphs Electron Density Stress Strain Graphs Electron Density Stress Strain Graphs Electron Density Stress Strain Graphs Electron Energies Electron Energies Centrepta Projectic Motion Kirchoff's Laws The Young Modulus Reflection Electron Energies Electron Electron Electron Energies Electron Professor Series and Parallel Circuits Stress Strain Graphs Electron From Electron E	<del></del>	Forces 5 (Dynamics)			enetism	Astrophysics	Triple Only)	EXAM PFR	RIOD		
Levers and Gears (Triple) Magnetic Fields Orbits of Planets, Moons (Triple) Pressure in the Fluid (Redux) (Triple) Solenoids Atmospheric Pressure (Triple) Electromagnets (Triple) Newton's Third Law The Force on a Conductor, FeBIL Main Sequence Stars (Triple) Newton's Third Law The Force on a Conductor, FeBIL Main Sequence Stars (Triple) Conservation of Momentum Loudspeakers (Triple) The Force on a Conductor, FeBIL Life Cycles of Stars (Triple) Collisions (Triple) The Generator Effect (Triple) The Formation of Elements (Triple) Stopping Distances Transformers (Triple) The Formation of Elements (Triple) Transformers (Triple) The Matter Waves mechanics Velocity and Acceleration Electric Current Fluids Types of Waves Wave-Particle Duality 2-Dimensis Motion Graphs Electrical Energy Transfer Density and Upthrust Wave Phase The Photoelectric Effect Further Co Adding Forces (Current and Voltage Relationships Fluid Movement Superposition The Nature of the Photon Circular Newton's Laws Conduction and Resistance Terminal Velocity Diffraction Atomic Electron Energies Centripeta Resolving Vectors Series and Parallel Circuits Stress, Strain Referaction Frigical Motion Momentum Power in Circuits Stress, Strain Graphs Lenses Work and Power Emf and Internal Resistance Uninage Formation (Ray Diagrams) Projectile Motion Momentum Power in Circuits Stress-Strain Graphs Lenses Work and Power Emf and Internal Resistance Uninage Formation (Ray Diagrams) Polarization Themodynamics Stress-Strain Graphs Lenses  Field Mechanics Heat and Temperature The Nuclear Atom Gravitational Fields Simple Harmonic Motion (SHM) Millikan and Coulomb Internal Energy Electrons Gravitational Fields Simple Harmonic Motion (SHM) Millikan and Coulomb Internal Energy Electrons Stressifications SHM Maths	7				,						
Pressure in the Fluid (Redux) (Triple) Atmospheric Pressure (Triple) Electromagnets (Triple) Force on a Conductor, F=Bit. Main Sequence Stars (Triple) Momentum Electric Motors Loudspeakers (Triple) The Formation of Elements (Triple) Stopping Distances Triple Tr								1			
Atmospheric Pressure (Triple)   Electromagnets (Triple)   Newton's Third Law   The Force on a Conductor, F=BIL   Main Sequence Stars (Triple)	Ē	Pressure in the Fluid (Redux) (Triple) Solenoids			Satellites (Triple)		1				
Newton's Third Law Momentum Electric Motors Life Cycles of Stars (Triple) Conservation of Momentum Loudspeakers (Triple) The Formation of Elements (Triple) Stopping Distances Transformers (Triple) Transformers (Triple) Transformers (Triple) Red-Shift (Triple) The Formation of Elements (Triple) Stopping Distances Transformers (Triple)  Forces 6 (Mechanics) Velocity and Acceleration Electric Current Motion Graphs Electrical Energy Transfer Density and Upthrust Density and Upthrust Wave Phase The Photoelectric Effect Further Co Adding Forces Adding Forces Current and Voltage Relationships Filld Movement Moments Resistivity Drag Standing Waves Electron/Photon Interaction Procision Newton's Laws Conduction and Resistance Terminal Velocity Diffraction Newton's Laws Conduction and Resistance Terminal Velocity Diffraction Projectile Motion Kirchoff's Laws The Young Modulus Reflection, Total Internal Reflection Gravitational and Kinetic Energies Potential Dividers Stress, Strain The Young Modulus Reflection, Total Internal Reflection Field Mechanics Field Mechanics Field Mechanics Field Mechanics Field Mechanics Fields Heat and Temperature The Nuclear and Particle Physics Gravitational and Free and Forces Oscillations Free and Forces Oscillations Radial Electric Fields Heat Transfer Particle Accelerators Starshine ShMi Energy Columb's Laws Ideal Gas Behaviour Particle Detectors Stellar Classifications ShMi Maths						The Sun and Other Stars (Triple)		1			
Conservation of Momentum  Collisions (Triple)  The Generator Effect (Triple)  The Generator Effect (Triple)  The Generator Effect (Triple)  Red-Shift (Triple)  Red-Shift (Triple)  Transformers (Triple)  Forces 6 (Mechanics)  Velocity and Acceleration  Electrica Current  Motion Graphs  Electrical Energy Transfer  Adding Forces  Current and Voltage Relationships  Fluid Movement  Moments  Resistivity  Drag  Standing Waves  Electron/Photon Interaction  Forces  Newton's Laws  Conduction and Resistance  Terminal Velocity  Energian Velocity  Resolving Vectors  Series and Parallel Circuits  Stress, Strain  Refraction  Projectile Motion  Gravitational and Kinetic Energies  Potential Dividers  Newton Stress-Strain Graphs  Electron for Momentum  Power in Circuits  Stress-Strain Graphs  Nuclear and Particle Physics  Electric Fields  Heat and Temperature  The Nuclear and Particle Physics  Gravitational and Forces  Free and Forces Oscillations  Stress Strashine  Simple Harmonic Motion (SIM)  Millikan and Coulomb  Internal Energy  Electrons  Radial Electric Fields  Heat Transfer  Particle Accelerators  Strashine  SHM Menergy  SHM Energy  Coulomb's Laws  Intel Accelerators  SHM Menergy  SHM Menergy  SHM Menergy  Forces 7 (Free)  Quantum Mechanics (Waves)  Wave netheries  Quantum Mechanics (Waves)  Wave-Particle Detectors  Stress-Strain Graphs  Electric Fields  Heat Transfer  Particle Accelerators  SHM Menergy  SHM Menergy  SHM Menery  Forces 7 (Free)  Quantum Mechanics (Waves)  Quantum Mechanics (Waves)  Forces 7 (Free)  Quantum Mechanics (Waves)  Ployed (Waves mechanics  Quantum Mechanics (Waves)  Propect of Waves mechanics  Quantum Mechanics (Waves)  Forces 7 (Free)  Quantum Mechanics (Waves)  Forces 7 (Free)  Quantum Mechanics (Waves)  Forces 7 (Free)  Quantum Mechanics (Waves)  Propect of Waves mechanics  Quantum Mechanics (Waves)  Propect of Waves mechanics  Quantum Mechanics (Waves)  Forces 7 (Free)  Quantum Mechanics (Waves)  Forces 7 (Free)  Propect of Waves mechanics  Quantum Mechanics  Quantum Mechanics  Quantum Mech	1							l l			
Collisions (Triple) Stopping Distances Transformers (Triple)  Forces 6 (Mechanics) Velocity and Acceleration Electrics Waves mechanics Velocity and Acceleration Electrical Energy Transfer Density and Upthrust Adding Forces Adding Forces Adding Forces Current and Voltage Relationships Fluid Movement Superposition The Photoelectric Effect Further Co. Adding Forces Adding Forces Current and Voltage Relationships Fluid Movement Superposition The Nature of the Photon Circular Moments Resistivity Drag Standing Waves Electron/Photon Interaction Proofs for Newton's Laws Conduction and Resistance Terminal Velocity Diffraction Projectile Motion Kinematics Resolving Vectors Series and Parallel Circuits Stress, Strain Refraction Projectile Motion Kirchoff's Laws Wave Interference Resolving Vectors Series and Parallel Circuits Stress, Strain The Young Modulus Reflection, Total Internal Reflection Gravitational and Kinetic Energies Work and Power Emf and Internal Resistance Linear Momentum Dower in Circuits  Field Mechanics Themo-dynamics Electric Fields Heat and Temperature The Nuclear and Particle Physics Cosmology Oscillations Simple Harmonic Motion (SHM) Milikan and Coulomb Internal Energy Electrons Gravitational Fields Simple Harmonic Motion (SHM) Milikan and Coulomb Internal Energy Electrons Gravitational Fields Simple Harmonic Motion (SHM) Free and Forces Oscillations Readial Electric Fields Heat Transfer Particle Accelerators Stellar Classifications SHM Maths								4			
Stopping Distances   Transformers (Triple   CMBR (Triple)								1			
Forces of (Mechanics)   Electrics   Matter   Waves mechanics   Velocity and Acceleration   Electric Current   Fluids   Types of Waves   Wave-Particle Duality   2-Dimension	-	Stonning Distances									
Velocity and Acceleration   Electric Current   Fluids   Types of Waves   Wave-Particle Duality   2-Dimensis   Motion Graphs   Electrical Energy Transfer   Density and Uthrust   Wave Phase   The Photoelectric Effect   Turther Co Adding Forces   Current and Voltage Relationships   Fluid Movement   Superposition   The Nature of the Photoelectric Effect   Turther Co Adding Forces   Current and Voltage Relationships   Fluid Movement   Superposition   The Nature of the Photoelectric Effect   Turther Co Adding Forces   Current and Voltage Relationships   Fluid Movement   Superposition   The Nature of the Photoelectric Effect   Turther Co Adding Forces   Current and Voltage Relationships   Fluid Movement   Superposition   The Nature of the Photoelectric Effect   Turther Co Adding Forces   Free and Forces   Centripeta   Proofs for Newton's Laws   Conduction and Resistance   Centripeta   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   Image Formation (Ray Diagrams)   Polarization   Polarization   Polarization   Power in Circuits   Polarization   Polarization   Power in Circuits   Polarization   Po			Electrics	rransiamiera (mpie	Matter			Quantum	Mechanics (Wayes)	Forces 7 (Advanced	
Motion Graphs Electrical Energy Transfer Density and Upthrust Wave Phase The Photoelectric Effect Further Co Adding Forces Current and Voltage Relationships Fluid Movement Superposition The Nature of the Photon Circular Moments Resistivity Drag Standing Waves Electron/Photon Interaction Proofs for Newton's Laws Conduction and Resistance Terminal Velocity Diffraction Atomic Electron Energies Centripeta Resolving Vectors Semiconductors Hooke's Law Wave Interference Resolving Vectors Series and Parallel Circuits Stress, Strain Refraction Frojectile Motion Kirchoff's Laws The Young Modulus Reflection, Total Internal Reflection Gravitational and Kinetic Energies Potential Dividers Stress-Strain Graphs Lenses Unicar Momentum Power in Circuits Polarization Field Mechanics Thermo-dynamics Nuclear and Particle Physics Cosmology Oscillations EXAM PERIOD  Field Mechanics Thermo-dynamics The Nuclear and Particle Physics Cosmology Oscillations EXAM PERIOD  Field Mechanics Thermo-dynamics Gravitational Fields Simple Harmonic Motion (SHM) Millikan and Coulomb Internal Energy Electrons Gravitational Forces Free and Forces Oscillations SHM Maths	7			rrent						2-Dimensional Collision	
Adding Forces Current and Voltage Relationships   Fluid Movement   Superposition   The Nature of the Photon   Circular M Moments   Resistivity   Drag   Standing Waves   Electron/Photon Interaction   Proofs for   P										Further Collisions	
Moments   Resistivity   Drag   Standing Waves   Electron/Photon Interaction   Proofs for Newton's Laws   Conduction and Resistance   Terrimal Velocity   Diffraction   Atomic Electron Energies   Atomic Electron Energies   Centripeta   Resolving Vectors   Series and Parallel Circuits   Stress, Strain   Refraction   Refraction   Gravitational and Kinetic Energies   Potential Dividers   Stress, Strain Graphs   Lenses   Unique Momentum   Power in Circuits   Dividers   Stress-Strain Graphs   Lenses   Image Formation (Ray Diagrams)   Polarization   Polarization   Polarization   Power in Circuits   Polarization   Polarization   Polarization   P										Circular Motion	
Newton's Laws Conduction and Resistance Terminal Velocity Diffraction Atomic Electron Energies Centripeta  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 Enf and Internal Resistance Linear Momentum Power in Circuits  Field Mechanics Themo-dynamics Nuclear and Particle Physics Cosmology Oscillations  Field Mechanics Themo-dynamics Selectrons 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			Resistivity			Standing Waves				Proofs for Circular Me	lotion
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 Linear Momentum Power in Circuits Conservation of Momentum  Field Mechanics Thermo-dynamics Nuclear and Particle Physics Cosmology Oscillations 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	-							Atomic Ele	ectron Energies	Centripetal Force	
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 Ein fand Internal Resistance Linear Momentum Power in Circuits Conservation of Momentum  Field Mechanics Thermo-dynamics 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	-							4		Centripetal Accleration	on
Gravitational and Kinetic Energies Potential Dividers Stress-Strain Graphs Lenses  Work and Power Emf and Internal Resistance Linear Momentum Power in Circuits Conservation of Momentum  Field Mechanics Thermo-dynamics Nuclear and Particle Physics Cosmology Oscillations 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	ļ.							1			
Work and Power Emf and Internal Resistance Image Formation (Ray Diagrams)  Linear Momentum Power in Circuits Polarization  Field Mechanics Thermo-dynamics Nuclear and Particle Physics Cosmology Oscillations  Field Mechanics Thermo-dynamics 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	ŀ							ł			
Conservation of Momentum   Power in Circuits   Polarization					ou coo ou aim or apris			1			
Conservation of Momentum  Field Mechanics  Thermo-dynamics  Nuclear and Particle Physics  Cosmology  Oscillations  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  Free and Forces Oscillations  Free Alm Energy  Free Alm Energy  Electrons  Gravitational Forces  Free Hart Transfer  Particle Accelerators  Starshine  SHM Energy  SHM Energy  SHM Maths					1			1			
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	7				1			1			
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	-				Nuclear and Particle Physics	Cosmology	Oscillations	EXAM PER	RIOD		
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	Ī	Electric Fields				Gravitational Fields	Simple Harmonic Motion (SHM)				
Coulomb's Law Ideal Gas Behaviour Particle Detectors Stellar Classifications SHM Maths				Internal Energy				1			
								4			
Lapacitors   Kinetic Theory Equations   The Large Hadron Collider   Measuring Astronomical Distances   Resonance							1				
		Exponential Functions Derivation						1			
Magnetic Fields The Particle 700 The Fate of the Universe	1			Derivation of Kinetic Equations			Damping	ł			
13 Interaction of the Standard Model The Standard Model	13			1		ate of the oniverse		1			
Magnetic Forces 4 Fundamental Forces	l <del>,</del>			1		1		I			
Generating Electricity/A.C. Particle Reactions				1		1	ĺ	I			
Nuclear Radiation	T I	2 2		1		1	ĺ	I			
Quark Flavours	- 1				Quark Flavours	]		I			
Rate of Radioactive Decay							ĺ	I			
Fission and Fusion	- 1						ĺ	I			
Nuclear Power Stations					Nuclear Power Stations		L				

Year	Term 1		<del> </del>	Term 2	Term 3			
rear	Organisms 1		Ecosystems & Energy 1	Term E	Inheritance 1	Terms		
	Cell Structure		Food Chains & Webs		Human Reproductive Systems			
	Microscopes		Interdependence		Pregnancy & Birth			
7	Bacterial Cells		Predator/Prey Cycle		Menstrual Cycle			
	Role of Diffusion		Ecosystems vs habitat vs niche		Plant Reproductive Systems			
1	Skeletal & Muscular Systems		Biodiversity		Seed dispersal			
			Pollination					
			Bioaccumulation					
	Organisms 2			ems & Energy 2	Inheritance 2			
	Specialised cells/tissues/organs		Respiration- Aerobic & Anaerobic		DNA, genes, chromosomes			
	Gas Exchange System		Photosynthesis		Development of DNA			
8	Effects of asthma/smoking on lungs				Species & Differences			
	Digestive System				Variation			
	Healthy Diet/lifestyle				Natural Selection & Evolution			
					Extinction & Fossils			
			_					
	Cells			ganisation		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			
9	DNA, genes, chromosomes Stem Cells		Plant Transport		Drug Development			
	Stem Cens		-					
1								
	Infection & Response		Bio	energetics		Homeostasis & Response		
l	Pathogens & Disease		Photosynthesis		Homeostasis & Body Temperature			
l	Human Defences		Rate of photosynthesis		Nervous System			
l	Treating Diseases		Aerobic Respiration		The eye & brain			
l	Plant Disease		Anaerobic Respiration		Endocrine System			
l	Drug Development		Metabolism		Blood Glucose & Diabetes			
10			Effects of exercise		Hormones & Reproduction			
					Plant Hormones			
			<b>=</b>					
			<b>=</b>					
1			1		1			
	Inheritance 3			Ecology	EXAM PERIOD			
1	Sexual/Asexual Reproduction		Classification					
1	DNA & Protein Synthesis		Ecosystems					
1	Patterns of Inheritance		Biotic/Abiotic Factors					
11	Variation & Evolution		Cycles- Carbon & Water					
111	Natural Selection		Disrupting Ecosystems					
l	Selective Breeding	·	Food Chains/Pyramids of Biomass					
l	Genetic Engineering		Biodiversity					
l			Food security & biotechnlogy					
	Unit 1- Biomolecules	Unit 2. Call Dislam	Halia Salaana in Carania	Unit & Countil Discording		Unit C Province to Change		
		Unit 2- Cell Biology	Unit 3-Exchange in Organisms	Unit 4- Genetic Diversity	Unit 3-Exchange in Organisms	Unit 6- Responses to Change		
l	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)		
l	Carbohydrates - monosaccharides	Electron microscopes	Gas exchange in single celled organisms	Genes and the triplet code	Blood vessels	Plant growth factors (tropisms)		
l	Carbohydrates - disaccharides and polysaccharides	Microscope calculations	Gas exchange in insects and fish	Structure of RNA	Transport systems in plants	The reflex arc		
l	Starch, glycogen and celulose	Eukaryotic cell structure	Gas exchange in plants	Protein synthesis	=			
l	Lipids Proteins	Cell specialisation and organisation	Limiting water loss in plants and insects	Mutations Majoric and genetic variation	=	1		
l		Prokaryotic cells and viruses	Structure of human gas exchange system	Meiosis and genetic variation	-			
l	Enzymes  Pate of enzyme controlled reactions	Mitosis and the Cell cycle	Mechanisms of breathing and gas exchange	Genetic diversity and adaptation	-			
12	Rate of enzyme controlled reactions Enzyme inhibition	Structure of cell membranes  Diffusion, osmosis and active transport	The digestive system and enzymes  Absorption of digested materials	Types of selection Taxonomy	-			
l	Structure of genetic material	Co-transport (absorption in the ileum)	Absorption of digested materials 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	₹			
l	Water and its functions	Cell mediated response	Heart structure and cardiac cycle		₹			
l		Humoral response	Blood vessels					
l		Antibodies	Transport systems in plants	7	1			
l		Vaccination		7	1			
1		HIV			1			
	Unit 5- Energy Transfer	Unit 6- Responses to Change	Unit 7-Genetics, Populations & Ecosystems	Unit 8- Gene Expression		EXAM PERIOD		
1	Overview of photosynthesis	Receptors	Monohybrid inheritance	Gene mutations				
l	Light-dependent reaction	Control of heart rate	Dihybrid inheritance	Stem cells				
l	Light-independenet reaction	Neurones and the nervous system	Probability and genetic crosses	Regulation of transcription and translation				
l	Glycolysis	Resting membrane potential	Codominance and multiple alleles	Epigenetic control				
l	Link reaction and krebs cycle	Action potentials	Sex-linkage and autosomal-linkage	Gene expression and cancer				
l	Oxidative phosphorylation	Passage of an action potential	Epistasis	Genome projects	_			
l	Anaerobic respiration Speed of conductance Energy transfers in ecosystems Synapses (structure and transmission) Nutrient cycles Skeletal muscles Uses of fertilisers and environmental impacts Contraction of muscles		Population genetics and variation in phenotypes	Recombinant DNA technology				
13			Natural selection	Creating DNA fragnments				
15			Different forms of selection	In-vivo gene cloning				
			Isolation and speciation	In-vitro gene cloning				
	·	Homeostasis	Population in ecosystems	Locating genes, genetic screening and counselling				
ı		Feedback mechanisms	Competition	Genetic fingerprinting	7			
i .		Regulation of glucose	Predation					
I		Diabetes and control	Investigating populations					
					1			
		Regulation of water (osmoregulation)	Succession					
		Nephrons	Succession Conservation	=				
		Regulation of water (osmoregulation) Nephrons Role of hormones in osmoregulation						

# Year 7 Overview

Physics

Biology

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
	SAM learning Homework i)     Lab safety basics and hazard     symbols	Organisms spelling test (SMHW)	Matter spelling test (SMHW)		1. Forces spelling test (SMHW)	Vocab lists and activity	Vocab lists and activity	Vocab lists and activity	Learning key word vocab task	Learning key word vocab task		Learning key word vocab task
Homework		animal and plant cells, ii) Movement	SAM learning tasks. i) Mixture (separating techniques), ii) Changes of state		SAM learning tasks. i) Speed,     Distance time graphs, Relative     Speed, ii) Weight, mass and     gravity	2. SAM learning tasks.	2. SAM learning tasks.	2. SAM learning tasks.	2. SAM learning tasks.	2. SAM learning tasks.		2. SAM learning tasks.
		3. Revision for test	3. Revision for test		3. Revision for test	3. Revision for test	3. Revision for test	3. Revision for test	3. Revision for test	3. Revision for test		<ol><li>Revision for test</li></ol>
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 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 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	classwork and homeworks (whole class feedback from SAM learning tasks)	feedback from SAM learning tasks)	Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks) Written test feedback		(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	(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
Main Interleaving	Safaty links to working in lahe	Previous - KS-2 links. Next steps - Organisms 2, Cells and Organisation	Previous - KS2 links. Next steps -		Previous - KS2 links. Next steps - Forces 4 (Kinematics)			Previous - KS2 links. Next steps -	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

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

Key Topic areas

Structure & Function of Organisms

Growth, Development & Inheritance

Organisms & their Environment

Health & Disease

Variation, Classification & Evolution

# Year 8 Overview

Physics

Biology

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	
	1. Organisms 2 spelling test (SMHW)	1. Matter 2 spelling test (SMHW)		1. Forces 2 spelling test (SMHW)	1. Vocab lists and activity	1. Vocab lists and activity	Vocab lists and activity	1. Learning key word vocab task	1. Learning key word vocab task		Learning key word vocab task	
Homework	SAM learning tasks. i) Effects     of Diet and Exercise, ii)Your     lungs and airways	SAM learning tasks. i) Atoms and Elements, ii) Ceramics		SAM learning tasks. i) Race car derby , ii) Turning and pressure	2. SAM learning tasks.	2. SAM learning tasks.	2. SAM learning tasks.	2. SAM learning tasks.	2. SAM learning tasks.		2. SAM learning tasks.	
	3. Revision for test	<ol><li>Revision for test</li></ol>		<ol><li>Revision for test</li></ol>	<ol><li>Revision for test</li></ol>	<ol><li>Revision for test</li></ol>	<ol><li>Revision for test</li></ol>	<ol><li>Revision for test</li></ol>	<ol><li>Revision for test</li></ol>		<ol><li>Revision for test</li></ol>	
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 (Annroy end of	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)		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)	Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)	feedback from SAM learning tasks)	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)		Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)	
	Written test feedback	Written test feedback		Written test feedback	Written test feedback	Written test feedback	Written test feedback	Written test feedback	Written test feedback		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

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

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

### Year 9 Overview

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	Vocab lists and activity     Worksheet/PPQs x 2     Revision for test x2  4. Test review & actions x2		Vocab lists and activity     Worksheet/question x 3     Revision for test      Test review & actions	Vocab lists and activity     Worksheet/question x 2     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 feedb	ack x2	Written test feedback	Written test feedbo	ock x 3		
	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			

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

Physics											
Year 9	Term 1			Tern	12		Term 3				
Topics	Forces 3 (Mechanics)	Year 9 Assessment window 1		ergy 2	Matter				Year 9 Assessment window 2	Electricity 2 (circuits)	
Homework	Vocab lists and activity     Worksheat/PPQs x 2     Revision for test x2      Test review & actions x2		Vocab lists and activity     Worksheet/question <u>x 2</u> Revision for test     Test review & actions		1. Vocab lists and activity 2. Worksheat/question x2 3. Revision for test 4. Test review & actions		3. Revision for test			Vocab lists and activity     Worksheer/question x 2     Revision for test x 3      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)		6.5.22)		11.3.22) 6.5.22) 24.6.22 marking will follow		End of unit Test (Approx end of cycle 20 - 22.7.22 )
Feedback By Teacher		eedback following issessment 1 homeworks (wh		ack on classwork and lass feedback from SAM ng tasks) work 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 feedb	Written to	st 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 Thermo		Previous-Energy chemistry. Next ste			Previous - Electricity 1 (fields). Next steps - Electricity 3 (fields and Advanced Circuits), Electromagnetism, Electrics (year 12)			
Reading for pleasure			The boy who h	arnessed the wind - W	Iliam Kamkwamba a	nd 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					
Homework	Keywords sheet via SMHW or Teams     Magnification core practical write up     S. Worksheet/question x 2     Test revison and then Test review & actions x2		Vocab lists and activity     Worksheet/question x 3     Revision for test     Test review & actions	Vocab lists and activity     Worksheet/question x3     Revision for test x2      Test review & actions x2			
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 feedbac	k 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		Ho	w 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 & Funlation

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	Vocab lists and activity     Worksheet/PPQs <u>x 2</u> Revision for test     Test review & actions		Vocab lists and activity     Worksheet/question x 2     Revision for test x2     Test review & actions x2	Vocab lists and activity     Worksheet/question x 2     Revision for test x 2     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	Writte	n 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	Peri	odic Tales By Hugh Alders	ey-Williams and Around the World is	18 Elements By David Scott			

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

Year 10	Term 1		Term 2	Term 3		Year 10	Term 1		Term 2		Term 3		Year 10	Term 1	
Topics	Sustainability	Year 10 Assessment window 1	Chemical Analysis	Organics	Year 10 Assessment window 2	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	Topics	Infection & Response	Bior
Homework	Vocab lists and activity     Worksheet/PPQs x 2     Revision for test     Test review & actions		Vocab lists and activity     Worksheet/question x 2     Revision for test x2     Test review & actions x2	Vocab lists and activity     Worksheet/question x 2     Revision for test x 2     Test review & actions x 2		Homework	Vocab lists and activity     Worksheet/PPQs x2     Revision for test x2     Test review & actions x2	Vocab lists and activity     Worksheet/question x 2     Revision for test     Test review & actions		Vocab lists and activity     Worksheet/question <u>x 2</u> Revision for test     Test review & actions	Vocab lists and activity     Worksheet/question x 2     Revision for test x 3     Test review & actions x 3		Homework	Revision for test     Test review & actions  Note that this topic follows on from the end of year 9.	Vocab lists and activ     Worksheet/question     Revision for test     Test review & action
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	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	Assessments	End of unit Test (Approx end of cycle 2 - 24.9.21)	End of unit Test (Appr
	Peer/verbal feedback an classwark and hameworks (whole class feedback from SAM learning tasks) Written homework feedback x 1	Feedback following assessment 1	and homeworks (whole class	Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)	Feedback following assessment 2	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 classwark and homeworks (whole class feedback from SAM learning tasks)	Feedback following assessment 1	Peer/verbal feedback on classwark and homeworks (whole class feedback from SAN learning tasks)		Feedback following assessment 2	Feedback By Teacher	Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)	Peer/verbal fees homeworks (whole lear Written homework fe
	Written test feedback x1	Writte	n test feedback x2	Written test feedb	ack x 2		Written test feedback	Written test feedback	2	Written test feedback	Written test feedb	ack x 2		Written test feedback	Witten nomework is
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		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)		Main Interleaving	Previous- Organisms 2. Next steps - Cellular Biology	Previous - Ecosystem Ener
teading for pleasure	Peri	odic Tales By Hugh Alder	sey-Williams and Around the World in	18 Elements By David Scott		Reading for pleasure		Bomb: The race to	build - and steal - the	world's most dangerous weapon - Steve S	heinki		Reading for pleasure		
Key	Topics Matter/Atomic structure/Periodic	]				Key	Topic areas	1					Key	Topic areas Structure & Function of Organisms	1
	Table Bonding/Reactions/ Chemical changes						Forces Electrics							Growth, Development & Inheritance	
	Earth/Atmosphere/ Resources Calculations						Energy Waves Astrophysics							Organisms & their Environment Health & Disease Variation, Classification & Evolution	
							Matter Nuclear and Atomic	l							

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	Revision for test     Test review & actions  Note that this topic follows on from the end of year 9.	Vocab lists and activity     Worksheet/question x     Revision for test     Test review & actions			Vocab lists and activity     Worksheet/question x 3     Revision for test x 2     A. 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)		ck on classwork and uss feedback from SAM g tasks)	Feedback following assessment 1	Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)	Feedback following assessment 1	
		Written homework feedback x 1					
	Written test feedback		Written test feedb	ack 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 Cruelt	y 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		Ten	Term 2			
Topics	(Organics &) Chemical Changes Year 11 Assessment window 1 (MOOKS)		Calculations	Year 11 Assessment window 1 (MOCKS 2)	EXAM PERIOD		
Homework	Vocab lists and activity     Worksheet/PPQs <u>x 2/3</u> Revision for test <u>x 2/3</u> Test review & actions <u>x 2/3</u>		Vocab lists and activity     Worksheet/question     Revision for test <u>x 2</u> Test review & actions <u>x 2</u>		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	End of unit Test (Approx end of cycle 13.5 - 1.4.22)  Assessment will occur betwee 28.2.22 to 11.3.22 marking w		GCSE Summer EXAMS		
		follow		follow			
Feedback By Teacher	Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)	Feedback following assessment I	Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)	Feedback following assessment 2	Informal/verbal feedback on classwork and revision		
	Written homework feedback x 1						
	Written test feeds	ack x2	Written test				
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 (% 9), Energy and Rates (Year 9), Next steps - Calculation (year 12)				
Danding for cleanure			A Short idistory of Everything By Bill	Some			

Xey	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 S (Dynamics)	Year 11 Assessment window 1 (MOCKS)	Electromagnetism		Astrophysics (Triple Only)	Year 11 Assessment window 1 (MOCKS 2)	EXAM PERIOD
Homework	Vocab lists and activity     Worksheet/PPQs x 2/3     Revision for test x 2     Test review & actions x 2		Vocab lists and activity     Worksheet/question     Revision for test <u>x 2</u> Test review & action <u>x 2</u>		Vocab lists and activity     Worksheet/question     Revision for test     Test review & actions		Revision
Anemments	End of unit Test (Approx end of cycle	Assessment will occur between 6.12.21 to	End of unit Test (Approx end of cycle 11 - 25.2.22)		End of unit Test (Approx end of cycle	Assessment will occur between 28.2.22 to 11.3.22 markins will	GCSE Summer EXAMS
Assessments	5 - 26.11.21 )	16.12.21 marking will follow			13.5 - 1.4.22)	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 classwark and homework (whole class feedback from SAM learning tasks)		Peer/verbal feedback on classwork and homeworks (whale class feedback from SAM learning tasks)	Feedback following assessment 1	informal/verbal feedback on classwork and revision
	Written test feedb	ack x2		V	Fritten test feedback x2/3		
Main interleaving	Previous - Forces 1 (kinematics) , Forces 2 (Dynamics), Forces 3 (mechanics), forces 4 (kinematics). Next steps - Forces 6 (fr 12), Forces 7 (fr 12).		Previous - Electricity 1 (fields), Electricity 2 (circuits Next steps - Field Mechanics (year 13)				
Reading for pleasure			At	lack hole is not a hole - C	arolyn Cinami Decristofano		

Xey	Topic areas	
	Forces	
	Electrics	
	Cnergy	
	Waves	
	Astrophysics	
	Matter	
	Nuclear and Atomic	

Biology								
Year 11		Term 1		Ter	rm 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	Revision for test     Test review & actions	Vocab lists and activity     Worksheet/question     Revision for test x2     Test review & actions x2		Vocab lists and activity     Worksheet/question x2     Revision for test x2     Test review & actions x2		Vocab lists and activity     Worksheet/question     Revision for test x 2     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)	and homeworks (whole class		Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)	Feedback following assessment 2	Peer/verbal feedback on classwork and homeworks (whole class feedback from SAM learning tasks)	Informal/werbal feedback on classwork and revision	
	Written test feedback x2			Written homework feedback x 2	Written test feedback v2	Written homework feedback x I		
Main Interleaving		Previous - Inheritance 2. Next steps - Unit 4 Genetic diversity, Unit 7- Genetics, Populations & Ecosystems, Unit 5- Gene Expression		Previous - Ecosystems & Energy 1. Next steps - Unit 4- Genetic Elversity, 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 Da	wkins			

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	MATI	Kinetics I	Equilibria I/II/Acid base	Energetics II	Year 12 assessment window 2
	Pre reading and independent study				Pre reading and independent study			Pre reading and independent study					
		Past paper	questions				Past paper questions			Past pa	aper questions		
Homework		Core practic	cal write up				Core practical write up			Core pr	actical write up		
	Revision for tests, Test actions and review				Revision for tests, Test actions and review		Revision for tests, Test actions and review						
		End of unit test x 4 Assessment will occur			n 17.1.22 to  marking will End of unit Test x 3			End of unit Test x 4				Assessment will	
Assessments				between 17.1.22 to 21.1.22 marking will follow				End of year 12 (AS) exams				occur between 20.6.22 to 1.7.22 marking will follow	
		Peer/verbal feedback on classwork and homeworks Feedback following		Peer/verbal feedback on classwork and homeworks			Informal/verbal feedback				Feedback following		
Feedback By Teacher		Written homework &	k core prac feedback		assessment 1	Written homework & core prac feedback			Written homework & core prac feedback				assessment 2
		Written test f	feedback x 4			Written test feedback x 4					Written test feedback x 2		
Main Interleaving		link to Atomic structure, B amental to all chemistry to topi	pics and interleaving wil			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- Kates (GCSE),	Previous - Energtics I (Yr 12). Next steps - Kinetisc 2	
Reading for pleasure				Periodi	ic Tales By Hugh Alders	y-Williams; Around the	World in 18 Elements By	David Scott; A Short H	istory of Everything By E	till Bryson			•

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

Year 13		Term 1						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		
	Pre reading and independent study Past paper questions			Past paper questions			Pre reading and independent study Past paper questions		Past pape	ndependent study r questions	Revision
Homework	Core practical write up  Revision for tests, Test actions and review			Core practical write up Revision for tests, Test actions and review			ical write up	Nevision			
Assessments	End of unit test x 3  Year 13 Assessment 1 (In class; November)				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	Name and Advantage (Contract Contract C		A level Summer EXAMS		
Feedback By Teacher	Informal/verbal feedback  Written homework & core prac feedback  Written test feedback x 4				Written homework &	Feedback following assessment 2	Informal/verbal feedback Written homework & core prac feedback		Informal/verbal feedback on classwork,		
,				core prac feedback			prac reedback	independent study and revision			
Main Interleaving	Previous - Redox I (Yr 12)		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				1							

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 Beviolo for tests. Test actions and review			Pre reading and independent study Past paper questions Core practical write up		Pre reading an Past pa Core pra Revision for tests,				
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	Revision for tests, Test actions and review  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 Written test feedback x 4		Feedback following assessment I	Peer/verbal feedback on classwork and homeworks Written homework & core prac feedback		Informal/verbal feedback Written homework & core prac feedback		Feedback following assessment 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		Written test feedback x 4 Previous- Forces 3 (Mechanics), Matter. Next steps - Thermo- dynamics	Previous- Waves. Next steps - Quantum Mechanics (Waves)	Previous - Waves Mechanics	Written test feedback x 2  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	
	Pre reading and independent study			Pre reading and independent study		Pre reading and independent study Past paper questions Core practical write up			
	Past paper questions			Past paper questions					
Homework	Core practical write up			Core practical write up				Revision	
	Revision for tests, Test actions and review			Revision for tests, Test actions and review		Revision for tests, Test actions and review			
Assessments	End of unit test x 3		End of unit Test x 3 Year 13 Mocks (Late	Assessment will occur between 17.1.22 to					
	Year 13 Assessment 1 (In class; November)		17.1.22 to 21.1.22 marking will follow	February)	21.1.22 marking will follow			A level Summer EXAMS	
Feedback By Teacher	informal/verbal feedback		Feedback following assessment 1	Informal/verbal feedback Written homework &	Feedback following assessment 2	informal/verbal feedback		Informal/verbal feedback on classwork,	
	Written homework & core prac feedback			core prac feedback	prac feedback Written homework & core prac feedback Written test feedback X4			independent study and revision	
	Written test feedback x 4								
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									

# 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-Exchang	e 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			Pre reading and independent study  Past paper questions  Core practical write up			Pre reading and independent stud Core practical write up Past paper questions		tical write up
	Revision for tests, Test actions and review		Revision for tests, Test actions and review						
Assessments	End of unit test x 2  Entry assessment (Early October)		occur between 17.1.22 to 21.1.22	End of unit Test x 2			between 20.6.22 to 1.7.22 marking will	Assessments for these topic will occur in year 13	
Feedback By Teacher	Peer/verbal feedback on classwork and homeworks  Written homework & core prac feedback		Feedback following	Peer/verbal feedback on classwork and homeworks  Written homework & core prac feedback			Feedback following assessment 2	Feedback on core practical work.	
reedback by Teacher	Written test feedback x 2		assessment 1				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- Organisatio Energy transfer, Unit			Previous- Homeostasis, Biolmolecules, Cell Biology, Exchange in organisms	Previous- Unit 4 Genetic Diversity. Next steps Unit 8- Gene Expression

Year 13		Term 1			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				
Assessments	End of unit test x 2  Year 13 Assessment 1 (In class; November)		between 17.1.22 to 21.1.22 marking will	End of unit Test Year 13 Mocks (Late February)	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 feed	Informal/verbal feedback on classwork, independent study and revision			
	Written test feedback x 3				Study und revision					
Main Interleaving	Previous - Bioenergetics, Biologogical 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	ading for pleasure Darwin Comes to Town: How the Urban Jungle Drives Evolution by Professor Menno Schilthuizen									