2020- 21

Department: Science

Curriculum Leader: Alison Durant

	HT1	HT2	HT3	HT4	HT5	HT6
	Key Content:	Key Content:	Key Content:	Key Content:	Key Content:	Key Content:
Year 11			Key Content:BiologyInherited disorders/ screening for genetic disordersVariationEvolution by natural selection Selective breeding - GeneticEngineering Cloning / adult cell cloning 			
	Key Skills:Describing Key ProcessesRelating Properties to StructureWriting word and symbol equationsBalancing equationsInvestigative skillsUse of practical techniquesMathematical Skills	Key Skills:Mathematical SkillsDescribing Key ProcessesRelating Properties to StructureWriting Word and Symbol EquationsBalancing EquationsExam TechniquePractical Skills	The Beginning & Future of The Universe Key Skills: Mathematical Skills Evaluating information Writing word and symbol equations Balancing equations Investigative skills Use of practical techniques Exam Technique	Key Skills: Writing word and symbol equations Balancing equations Investigative skills Use of practical techniques Exam Technique Describing Key Processes	Key Skills: Exam Technique Recall & Revision Strategies Mathematical Skills Investigative Skills	Key Skills: Exam Technique Recall & Revision Strategies Mathematical Skills Investigative Skills

	Key Content:	Key Content:	Key Content:	Key Content:	Key Content:	Key Content:
	Biology	Biology	Biology	Biology	Biology	Biology
	B4.1 – The Blood	B5.1 – Health and Disease	Treating disease	Photosynthesis	Respiration	The nervous system
	B4.2 – The Blood Vessels	B5.2 – Pathogens and Diseases	Non-Communicable Diseases	B7.5 – Alcohol and other carcinogens	B9.3 – Anaerobic Respiration	FEEDBACK ON MOCKS
	B4.3 – The Heart	B5.3 – Growing Bacteria in a lab	B6.2 – Antibiotics and Painkillers	REVISION	B9.4 – Metabolism and the liver	B10.1 – Principles of Homeostasis
	B4.4 – Helping the heart	B5.4 – Preventing bacterial growth	B6.3 – Discovering Drugs	B7 Test	B8 andB9 test	B10.2 – The Structure and function of
Veer	B4.5 – Breathing and Gas Exchange	B5.5 – Preventing infections	B6.4 – Developing Drugs	Feedback on B7 test	Feedback on B8 & B9 test	the nervous system
Year	B4.6 – Tissues and Organs in plants	B5.6 – Viral Diseases	B6.5 – Making Monoclonal	B8.1 – Photosynthesis	REVISION FOR MOCKS	B10.3 Reflex Actions
10	B4.7 – Transport systems in plants	B5.7 – Bacterial Diseases	antibodies	B8.2 – The Rate of Photosynthesis	MOCKS	B10.4 – The Brain
	B4.8 – Evaporation and	B5.8 – Diseases caused by fungi and	B6.6 – Uses monoclonal antibodies	B8.3 – How plants use glucose	MOCKS	B10.5 – The Eye
	Transpiration	protists	YEAR 10 ASSESSMENT WEEK	B8.4 – Making the most of	FEEDBACK FROM MOCKS	B10.6 – Common problems of the eye
	Revision for B4 Test	B5.9 human Defence Responses	B5 and B6 Test	photosynthesis		REVISION
	Feedback on B4 Test	B5.10 – More about Plant Diseases	Feedback on B5 and B6 test	Revision	Chemistry	Revision
		B5.11 – Plant defence Responses	B7.1 – Non-communicable Diseases	B8 TEST	Chemical calculations	B10 TEST
	Chemistry	B5 Test	B7.2 – Cancer	FEEDBACK on test B8	C4.5 Atom Economy	FEEDBACK ON B10 TEST
	Structure and bonding	Feedback on B5 test	B7.3 – Smoking and risk of diseases	B9.1 – Aerobic Respiration	C4.6 Expressing Concentrations	
	C3.1 States of Matter	B6.1 – Vaccination	B7.4 – Diet, Exercise and Diseases		C4.7 Titration Practical	Chemistry
	C3.2 Atoms into Ion			Chemistry	C4.8 Titration Calculations	Rates and equilibrium
	C3.3 Ionic Bonding	Chemistry	Chemistry	Energy changes	C4.9 Volumes of Gases	C8.1 Rates of Reaction
	C3.4 Giant Ionic Structures	Chemical changes	Electrolysis	Chemical calculations	REVISION C4	C8.2 Collision Theory & Surface Area
	C3.5 Covalent Bonding	REVISION	Energy changes	C7.5 Chemical Cells & Batteries	Y10 MOCK EXAMS:	C8.3 The Effect of Temperature
	C3.6 Simple Covalent Molecules	C1-3 TEST	C6.1 Introduction to Electrolysis	C7.6 Fuel Cells	MONDAY 10TH – FRIDAY 21ST MAY	C8.4 The Effect of Concentration &
	C3.7 Giant Covalent Structures	FEEDBACK ON C1-3 TEST	C6.2 Changes at the Electrodes	REVISION C1-3	Chemistry Paper 1	Pressure
	C3.8 Fullerenes & Graphene	FEEDBACK ON C1-3 TEST	C6.3 Extraction of Aluminium	REVISION C5-7	Y10 MOCK EXAMS:	C8.5 The Effect of Catalysts
	C3.9 Bonding in Metals	C5.1 The Reactivity Series	C6.4 Electrolysis of Aqueous	C1-3 ASSESSMENT	MONDAY 10TH – FRIDAY 21ST MAY	C8.6 Reversible Reactions
	C3.10 Giant Metallic Structures	C5.2 Displacement Reactions	Solutions	C5-7 ASSESSMENT	Chemistry Paper 1	C8.7 Energy & Reversible Reactions
	C3.11 Nanoparticles	C5.3 Extracting Metals	TESTS: C1-3 & C5-6	FEEDBACK ON	GO THROUGH MOCK PAPERS	C8.8 Dynamic Equilibrium
	C3.12 Applications of nanoparticles	C5.4 Salts from Metals	FEEDBACK ON C1-3 ASSESSMENT	C1-3 ASSESSMENT		C8.9 Altering Conditions
		C5.5 Salts from Insoluble Bases	FEEDBACK ON C5-6 ASSESSMENT	FEEDBACK ON	Physics	C8 REVISION
		C5.6 Making More Salts	C7.1 Exothermic & Endothermic	C5-7 ASSESSMENT	Force and motion	C8 ASSESSMENT
	Physics	C1-3 & c5 assessment	Reactions	C4.1 Relative Masses & Moles	Force and pressure	GO THROUGH C8 ASSESSMENT
	Radioactivity	Peer mark c1-3 & c5 assessment	C7.2 Using Energy Transfers from	C4.2 Equations & Calculations	MOCK Exams	
	Half Life Graphs & Calculations	Physics	Reactions	C4.3 Reacting Masses Calculations	P12.1 The nature of waves	Ph. sty.
	Nuclear Fission & Fusions	Radioactivity	C7.1 Exothermic & Endothermic	C4.4 Percentage Yield	P12.2 The Properties of waves RP1	Physics
	P7.1 – Atoms & Radiation P7.2 – The discovery of the nucleus	P8.1 – Vectors & Scalars	Reactions	Dhusia	P12.2 The Properties of waves RP2 P12.3 Reflection & Refraction (H)	Waves and properties
	P7.2 – The discovery of the nucleus P7.3 – Changes in the nucleus	P8.2 – Forces between objects	C7.2 Using Energy Transfers from Reactions	Physics Motion	P12.3 Reflection & Refraction (H) P12.4 More about waves RP1	Electromagnetic waves P12.5 Sound Waves (H)
	P7.4 – More about alpha, beta &	P8.3 – Resultant Forces	C7.3 Reaction Profiles	P10.7 Safety First (H)	P12.4 More about waves RP1 P12.4 More about waves RP2	P12.5 Sound Waves (H) P12.6 Uses of Ultrasound (H)
	•	P8.4 – Moments at Work	C7.4 Bond Energy Calculations	P10.7 Salety First (H) P10.8 Forces & Elasticity RP1	MOCK EXAMS	P12.7 Seismic Waves (H)
	gamma P7.5 – Activity & Half-Life	P8.5 – More about Levers & Gears	C7.4 Bolid Ellergy Calculations	P10.8 Forces & Elasticity RP2	MOCK EXAMS	P12 Revision
	P7.6 – Nuclear Radiation in Medicine	P8.6 – Centre of Mass	Physics	P9/10 REVISION	MOCK EXAMIS MOCK EXAM REVIEW	P12 TEST
	P7.7 – Nuclear Fission	P8.7 – Moments & Equilibrium	Forces in Balance	P9/10 TEST		P12 TEST FEEDBACK
	P7.8 – Nuclear Fusion	P8.8 – The Parallelogram of Forces	P9.1 – Speed/Time Graphs	P9/10 TEST FEEDBACK		P13.1/2 EM Spectrum, Light, IR,
	P7.9 – Nuclear Issues	(H)	P9.1 - Distance/Time Graphs	P11.1 Pressure & Surfaces		microwaves & radio
	P7 Revision	P8.9 – Resolution of Forces	P9.2 – Velocity & Acceleration	P11.2/3 Pressure in a liquid (H)/		P13.3/4 Communications, UV, X-rays &
	P7 TEST	P8 REVISION	P9.3 More about V/T Graphs	Atmospheric Pressure		gamma rays
	P7 TEST FEEDBACK	P8 TEST	P9.4 – Analysing Motion Graphs	P11.4 Upthrust & Flotation (H)		P13.5 X-rays in medicine
		P8 TEST FEEDBACK	P10.1 Force & Acceleration RP1	P9/10/11 REVISION		P13 REVISION
		P7 REVISION	P10.1 Force & Acceleration RP2	Test		P13 TEST
		P7 QUIZ	P10.2 Weight & Terminal Velocity	Test feedback		P13 TEST FEEDBACK
			P10.3 Forces & Braking			
			P10.4 Momentum (H)			
			P10.5 Conservation of Momentum			End of Year Assessments
			(H)			
			P10.6 Impact Forces (H)			

Year	Key Skills:Mathematical skillsRecall of partsUse of practical techniqueDescribing key processesExam techniqueKey Content:	Key Skills:Mathematical skillsRelating Properties to StructureUse of practical techniqueDescribing key processesExam techniqueKey Content:	Key Skills:Recall of PartsBalancing Symbol EquationsForces CalculationsInvestigative SkillsDescribing key processesExam techniqueKey Content:	Key Skills:Recall of PartsDescribing key processesForces CalculationsInvestigative SkillsExam techniqueKey Content:	Key Skills:Recall of partsDescribing key processesMathematical skillsExam techniqueKey Content:	Key Skills: Recall of parts Mathematical skills Describing key processes Exam technique Key Content:
9	Cells Transport Mechanisms Pathogens and Disease Cell Division & Mitosis	Energy Transfer Thermal Energy Atomic structure	Atomic Structure The Periodic Table Mendeleev & The Development of the Periodic Table Energy transfer by heating	Energy Resources Charge & Electricity	Electricity in the Home Density Internal Energy & SLH Gas Temperature & Pressure	The Digestive System Digestive Enzymes Food Tests End of Year Assessments
	Key Skills: Recall of parts Describing functions Use of Practical Technique Exam technique	Key Skills: Describing Key Processes Investigative Skills Energy Transfer Calculations Exam technique	Key Skills: Recall of Parts Exam technique Investigative Skills Developing Scientific Theory	Key Skills: Linking Properties to Structure Recall of Parts Mathematical Skills Exam technique	Key Skills: Recall of Parts Describing Key Processes Mathematical Skills Exam Technique	Key Skills: Recall of Parts Linking Properties to Structure Exam technique
Year 8	Key Content: Forces Pressure Magnetic Fields Electromagnets Work Done & Energy Energy Transfer	Key Content: Sound Waves Radiation & Energy Modelling Waves Atoms, Elements & Compounds Chemical Formulae Polymers The Periodic Table Groups 1, 7 and 0.	Key Content: Atoms in Chemical Reactions Combustion Thermal Decomposition Conservation of Mass Exothermic & Endothermic Reactions Energy Profile Diagrams The Carbon Cycle & Global Warming Extracting Metals & Recycling	Key Content: Gas Exchange Drugs, Alcohol & Smoking Nutrients & Food Tests Diet & The Digestive System Bacteria & Enzymes in Digestion Aerobic Respiration Anaerobic Respiration Photosynthesis	Key Content: Investigating Photosynthesis Plant Minerals Natural Selection Charles Darwin Extinction Preserving Biodiversity Inheritance DNA & Genetics	Key Content: Food Testing Investigation Stearic Acid, Colling Curve Hooke's Law Investigation End of Year Assessments Photosynthesis Investigation Thermal Decomposition Investigation Making Electromagnets Investigation
	Key Skills: Recall of parts and functions Linking Properties to Structure Describing Processes Use of Key Terminology Mathematical Calculations	Key Skills: Writing word equations Writing symbol equations Balancing Equations Use of Key Terminology Describing Key Concepts	Key Skills: Writing word equations Writing symbol equations Balancing Equations Use of Key Terminology Describing Key Concepts	Key Skills: Use of Evidence Use of Key Terminology Investigative Skills Describing Key Concepts Writing word & symbol equations	Key Skills: Use of Evidence Use of Key Terminology Investigative Skills Developing Scientific Theory Describing Key Concepts	Key Skills: Wave Calculations Energy Transfer Calculations Use of Key Terminology
Year 7	Key Content: Practical & Safety Skills for Science Forces Electricity	Key Content: Energy Waves – Sound & The Ear	Key Content: Light The Eye & Vision States of Matter Diffusion	Key Content: Separating Mixtures Chemical Reactions Acids & Alkalis Neutralisation	Key Content: Metals and Non-Metals Making Salts Displacement of Metals Structure of the Earth The Rock Cycle	Key Content: The Skeleton Movement and the Joints Cells Food Chains & Webs Flowers and Pollination End of Year Assessments

Key Skills:	Key Skills:	Key Skills:	Key Skills:	Key Skills:	Key Skills:
Carrying out investigations	Energy/Power Calculations Wave Calculations Use of Key Terminology	Recall of parts and functions	Use of Technical Equipment Use of Key Terminology	Research Skills	Recall of parts and functions Use of Key Terminology Use of Microscopes