

Science		Autumn term		Spring term		Summer term	
		HT1	HT2	HT3	HT4	HT5	HT6
Year 7	7ASc1	Introduction to Science B1.1 Cells C1.1 Particles & their behaviour	Assessment B1.2 Structure & function of body systems C1.2 Elements, atoms & compounds P1.2 Sound	P1.3 Lights P1.4 Space C1.3 Reactions	Assessment C1.4 Acids and Alkalis B1.3 Reproduction	B1.3 Reproduction continued Revision	Year 7 Project
	7ASc2	Introduction to Science B1.1 Cells C1.1 Particles & their behaviour	B1.2 Structure & function of body systems C1.2 Elements, atoms & compounds P1.1 Forces P1.2 Sound	P1.3 Lights P1.4 Space C1.3 Reactions	B1.3 Reproduction C1.4 Acids and Alkalis	Revision	Year 7 Project
	7ASc3	Introduction to Science B1.1 Cells C1.1 Particles & their behaviour	B1.2 Structure & function of body systems C1.2 Elements, atoms & compounds P1.2 Sound	P1.1 Forces P1.3 Light C1.3 Reactions	P1.4 Space B1.3 Reproduction C1.4 Acids and Alkalis	Revision	Year 7 Project
	7BSc1	Introduction to Science B1.1 Cells C1.1 Particles & their behaviour P1.1 Forces	B1.2 Structure & function of body systems C1.2 Elements, atoms & compounds P1.3 Light	C1.3 Reactions P1.3 Light P1.4 Space	B1.3 Reproduction C1.4 Acids and Alkalis	B1.3 Reproduction continued Revision	Year 7 Project
	7BSc2	Introduction to Science B1.1 Cells C1.1 Particles & their behaviour	B1.2 Structure & function of body systems C1.2 Elements, atoms & compounds P1.1 Forces	C1.4 Acids and Alkalis P1.3 Light P1.4 Space	C1.3 Reactions B1.3 Reproduction	Revision	Year 7 Project
	7BSc3	Introduction to Science B1.1 Cells C1.1 Particles & their behaviour	B1.2 Structure & function of body systems C1.2 Elements, atoms & compounds P1.1 Forces	B1.3 Reproduction P1.4 Space C1.3 Reactions P1.2 Light	P1.3 Light C1.4 Acids and Alkalis	Revision	Year 7 Project
Year 8	8A1	B2.1 Health & lifestyle C2.1 The periodic table C2.2 Separation techniques Assessment	P2.1 Electricity and magnetism P2.2 Energy B2.2 Ecosystem processes	B2.3 Adaptation and inheritance C2.4 The earth Assessment	C2.3 Metals and acids P2.3 Motion and pressure	End of year Assessment Revision	B1 Cell structure and transport P8 Forces in Balance

	8A2	P2.1 Electricity and magnetism C2.1 The periodic table B2.1 Health and lifestyle	P2.2 Energy B2.2 Ecosystem processes C2.2 Separation techniques	B2.3 Adaptation and inheritance C2.3 Metals and acids	P2.3 Motion and pressure C2.4 The earth	End of year Assessment Revision	B1 Cell structure and transport P8 Forces in Balance
	8A3	C2.1 The periodic Table P2.1 Electricity and magnetism P2.2 Energy	B2.1 Health and lifestyle C2.2 Separation techniques C2.3 Metals and acids	B2.2 Ecosystem processes P2.3 Motion and pressure	B2.3 Adaptation and inheritance C2.4 The earth	End of year Assessment Revision	B1 Cell structure and transport P8 Forces in Balance
	8B1	B2.2 Ecosystem processes P2.2 Energy	C2.1 The periodic table C2.2 Separation techniques B2.1 Health and lifestyle P2.1 Electricity and magnetism	C2.3 Metals and acids B2.3 Adaptation and inheritance	C2.4 The earth P2.3 Motion and pressure	End of year Assessment Revision	B1 Cell structure and transport P8 Forces in Balance
	8B2	B2.2 Ecosystem processes C2.2 Separation techniques	B2.1 Health and lifestyle C2.1 The periodic table P2.1 Electricity and magnetism	C2.3 Metals and acids B2.3 Adaptation and inheritance	C2.4 The earth P2.3 Motion and pressure	End of year Assessment Revision	B1 Cell structure and transport P8 Forces in Balance
	8B3	B2.2 Ecosystem processes P2.2 Energy C2.1 The periodic table	P2.1 Electricity and magnetism C2.2 Separation techniques B2.1 Health and lifestyle C2.1 The periodic table	B2.3 Adaptation and inheritance C2.3 Metals and acids P2.3 Motion and pressure	C2.4 The earth P2.3 Motion and pressure	End of year Assessment Revision	B1 Cell structure and transport P8 Forces in Balance

Science trilogy	Autumn term		Spring term		Summer term	
	HT1	HT2	HT3	HT4	HT5	HT6
Year 9	B1 Cell Structure and Transport Revision C1 Atomic Structure P1 Conservation and dissipation of energy	B2 Cell Division C2 The periodic table P2 Energy transfer by heating P3 Energy resources Assessment	B3 – Organisation and the Digestive System C2 The periodic table C3 Structure & bonding P4 Electric circuits	B5 – Communicable Diseases C3 Structure & bonding P4 Electric circuits Assessment	B4 – Organising Animals and Plants C4 Chemical calculations P5 Electricity in the home Assessment	B6 – Preventing and Treating Diseases C4 Chemical calculations P6 Molecules and matter Assessment

Year 10	B6 – Preventing and Treating Diseases B7 – Non – communicable Diseases C6 Electrolysis P7 Radioactivity Assessment	B8 - Photosynthesis C7 Energy changes C8 The Rates & Extent of Chemical Change P8 Forces in balance Assessment	B9 - Respiration C8 The Rates & Extent of Chemical Change P9 Motions Assessment	B10 – The Human Nervous System C9 Hydrocarbons C10 Organic Reactions P10 Force and motion Paper 1 Assessment	B11 – Hormonal Coordination C9 Hydrocarbons C10 Organic Reactions P11 Force and pressure Assessment	B12 – Homeostasis in action C9 Hydrocarbons C10 Organic Reactions C11 Polymers Assessment
Year 11	B12 – Homeostasis in action B13 - Reproduction C12 Chemical analysis Assessment	B14 – Variation and Evolution C12 Chemical analysis C10 Organic Reactions C12 Chemical analysis Paper 1 Assessment	B11 – Hormonal Coordination B12 – Homeostasis in Action P12 Wave properties P13 Electromagnetic waves Assessment	B15 – Genetics and Evolution B16 – Adaptations, Interdependence and competition Paper 2 Assessment Revision	B17 – Organising an ecosystem Revision	Revision Exam leave

Science triple	Autumn term		Spring term		Summer term	
	HT1	HT2	HT3	HT4	HT5	HT6
Year 9	B1 Cell Structure and Transport Revision C1 Atomic Structure P1 Conservation and dissipation of energy	B2 Cell Division C2 The periodic table P2 Energy transfer by heating P3 Energy resources Assessment	B3 – Organisation and the Digestive System C2 The periodic table C3 Structure & bonding P4 Electric circuits	B5 – Communicable Diseases C3 Structure & bonding P4 Electric circuits Assessment	B4 – Organising Animals and Plants C4 Chemical calculations P5 Electricity in the home Assessment	B6 – Preventing and Treating Diseases C4 Chemical calculations P6 Molecules and matter Assessment
Year 10	B6 – Preventing and Treating Diseases B7 – Non – communicable Diseases C6 Electrolysis P7 Radioactivity Assessment	B8 - Photosynthesis C7 Energy changes C8 The Rates & Extent of Chemical Change P8 Forces in balance Assessment	B9 - Respiration C8 The Rates & Extent of Chemical Change P9 Motions Assessment	B10 – The Human Nervous System C9 Hydrocarbons C10 Organic Reactions P10 Force and motion Paper 1 Assessment	B11 – Hormonal Coordination C9 Hydrocarbons C10 Organic Reactions P11 Force and pressure Assessment	B12 – Homeostasis in action C9 Hydrocarbons C10 Organic Reactions C11 Polymers P12 Wave properties Assessment
Year 11	B13 - Reproduction C12 Chemical analysis P13 Electromagnetic waves Assessment	B14 – Variation and Evolution C12 Chemical analysis C10 Organic Reactions P14 Light Paper 1 Assessment	B11 – Hormonal Coordination B15 – Genetics and Evolution C12 Chemical analysis P15 Electromagnetism Assessment	B12 – Homeostasis in Action B16 – Adaptations, Interdependence and competition Paper 2 Assessment Revision	B17 – Organising an ecosystem B18 – Biodiversity and Ecosystems Revision	Revision Exam leave

Biology	Autumn term		Spring term		Summer term	
	HT1	HT2	HT3	HT4	HT5	HT6
Year 12 <i>Formal assessments occur after every topic occasionally two topics are assessed together</i>	3.1.1 Monomers and polymers 3.1.2 Carbohydrates 3.1.3 Lipids 3.1.5 Nucleic acids 3.1.6 ATP 3.1.7 Water 3.1.8 Inorganic ions 3.2.1 Cell structure 3.2.2 All cells arise from other cells 3.3.1 Surface area to volume ratio	1.4 Proteins/enzymes 3.3.2 Gas exchange 3.3.3 Digestion and absorption Assessment	3.2.3 Transport across cell membranes 3.3.4 Mass transport	3.2.3 Transport across cell membranes 3.4.6 Biodiversity within a community 3.4.7 Investigating diversity 3.2.4 Cell recognition and the immune system 3.4.1 DNA, genes and chromosomes 3.4.2 DNA and protein synthesis 3.4.3 3.4.4 Genetic diversity and adaptation 3.4.5 Species and taxonomy	Revision for Mock exam on previous topics.	Assessment Begin A2
	Required Practical 2. Preparation of stained squashes of cells from plant root tips; setup and use of an optical microscope to identify the stages of mitosis in these stained squashes and calculation of a mitotic index. Required practical 11. Production of a dilution series of a glucose solution and use of colorimetric techniques to produce a calibration curve with which to identify the concentration of glucose in an unknown 'urine' sample	Required Practical 1. Investigation into the effect of a named variable on the rate of an enzyme-controlled reaction.	Required Practical 3. Production of a dilution series of a solute to produce a calibration curve with which to identify the water potential of plant tissue. Required Practical 5. Dissection of animal or plant respiratory system or mass transport system or of organ within such a system	Required Practical 4. Investigation into the effect of a named variable on the permeability of cell-surface membranes. Required Practical 6. Use of aseptic techniques to investigate the effect of antimicrobial substances on microbial growth.		
Year 13	3.7.1 Inheritance 3.7.2 Populations	3.7.3 Evolution may lead to speciation 3.7.4 Populations in ecosystems	3.6.4 Homeostasis is the maintenance of a stable internal environment 3.7.4 Populations in ecosystems	3.8.1 Alteration of the sequence of bases in DNA can alter the structure of proteins	3.8.3 Using genome projects	Revision for Exam

<p><i>Formal assessments occur after every topic occasionally two topics are assessed together</i></p>	<p>3.5.3 Energy and ecosystems 3.5.4 Nutrient cycles 3.5.1. Photosynthesis contd..... 3.5.2 Respiration</p>	<p>3.6.4. Homeostasis is the maintenance of a stable internal environment. Control mechanisms. Thermoregulation. 3.5.1. Photosynthesis Assesment</p>	<p>Synoptic essay practice At least one synoptic essay to be done 3.6.1 Stimuli, both internal and external, are detected and lead to a response 3.6.2 Nervous coordination</p>	<p>3.8.2 Gene expression is controlled by a number of features 3.6.3 Skeletal muscles are stimulated to contract by nerves and act as effectors Assessment</p>	<p>3.8.4 Gene technologies</p>	
	<p>Required practical 8. Investigation into the effect of a named factor on the rate of dehydrogenase activity in extracts of chloroplasts Required practical 9. Investigation into the effect of a named variable on the rate of respiration of cultures of single-celled organisms</p>	<p>Required practical no.7 Use of chromatography to investigate the pigments isolated from leaves of different plants, eg leaves from shade-tolerant and shade-intolerant plants or leaves of different colours</p>	<p>Required practical 12. Investigation into the effect of a named environmental factor on the distribution of a given species Required practical 10. Investigation into the effect of an environmental variable on the movement of an animal using either a choice chamber or a maze</p>			

Chemistry	Autumn term		Spring term		Summer term	
	HT1	HT2	HT3	HT4	HT5	HT6
<p>Year 12 <i>Formal assessments occur after every</i></p>	<p>Physical 1 1 Atomic structure. 2 Amount of substance Organic 1</p>	<p>Physical 1 3 Bonding 4 Energetics Organic 1 13 Haloalkanes 14 Alkenes</p>	<p>Physical 1 4 Energetics continued 5 Kinetics Organic 1 15 Alcohols 16 Organic Analysis</p>	<p>Physical 1 5 Kinetics continued. 6 Equilibria 7 Oxidation, reduction & REDOX reactions.</p>	<p>Inorganic 1 8 Periodicity 9 Group 2.</p>	<p>Inorganic 1 10 Group 7 Organic 2 25. Nomenclature & isomerism.</p>

<i>topic occasionally two topics are assessed together</i>	11 Introduction to organic chemistry 12 Alkanes					
	Practical 1: Titration		Practical 2: Measurement of enthalpy change.	Practical 3: Rates of reaction	Practical 5: Distillation of a product from a reaction. Practical 6: Tests for alcohol, aldehyde, alkene and carboxylic acid	Practical 4: Carry out simple test-tube reactions to identify: cations and anions
Year 13 <i>Formal assessments occur after every topic occasionally two topics are assessed together</i>	Physical 2 17 Thermodynamics 18 Kinetics 19 Equilibrium constant K _p Organic 2 25 Nomenclature & Isomerism. 26 Compounds containing the carbonyl group	Physical 2 20 Electrode potentials and electrochemical cells. Organic 2 27 Aromatic chemistry	Physical 2 21 Acids, bases and buffers. Organic 2 28 Amines 29 Polymerisation 30 Amino acids, proteins and DNA 31 Organic synthesis & analysis	Inorganic 2 22 Periodicity Organic 2 32 Structure determination 33 Chromatography	Inorganic 2 23 The transition metals 24 Reactions of inorganic compounds in aqueous solution	Revision for Exam
	Practical 7: Measuring the rate of reaction: a. by an initial rate method b. by a continuous monitoring method	Practical 10: Preparation of: a. a pure organic solid and test of its purity b. a pure organic liquid	Practical 8: Measuring the EMF of an electrochemical cell	Practical 9: Investigate how pH changes Practical 12: Separation of species by thin-layer chromatography	Practical 11: Carry out simple test-tube reactions to identify transition metal ions in aqueous solution	

Physics	Autumn term		Spring term		Summer term	
	HT1	HT2	HT3	HT4	HT5	HT6

<p>Year 12</p> <p><i>Formal assessments occur after every topic occasionally two topics are assessed together</i></p>	Mechanics Measurements and their errors Assessment Particles	Mechanics Particles Assessment EM radiation and quantum phenomena Assessment Waves	Mechanics Assessment Waves Assessment	Materials Electricity	Materials Electricity Assessment	Materials Assessment Further Mechanics
	Practice practical 1 (Hooke's law or density) Practice practical 2 (finding resistance)	Required practical 1 – stationary waves	Required practical 2 – Young's slits Required practical 3 – Determination of g	Required practical 4 – the Young modulus Required practical 5 – Resistivity	Required practical 6 – Emf and int. res.	
<p>Year 13</p> <p><i>Formal assessments occur after every topic occasionally two topics are assessed together</i></p>	Gravitational and Electrical Fields Further mechanics Assessment Thermal physics	Gravitational and Electrical Fields Assessment Thermal physics Assessment Magnetic fields Assessment	Capacitors Nuclear Physics Assessment Option	Capacitors Assessment Option Assessment PPEs	Testing magnetic fields Exam revision – Paper 3	Revision for Exam
	Required practical 7 SHM Required practical 8 – Boyle's Law	Required practical 10 – Flux density Required practical 11 – Flux linkage angle	Required practical 9 – Capacitors Required practical 12 – Inverse square law		Completing Required Practical Lab Books	

Autumn term

Spring term

Summer term

Applied Science Level 3	HT1	HT2	HT3	HT4	HT5	HT6
Year 12	<p>Unit 1:</p> <p>A1. Structure & bonding in applications</p> <p>B1. Structure & functions of cells & tissues</p> <p>B2. Cell specialisation</p>	<p>Unit 1:</p> <p>A.2 Production & uses of substances in relation to properties</p> <p>B.3 tissue structure & function</p>	<p>Unit 1:</p> <p>C1. Working with waves</p> <p>C2. Waves in communication</p> <p>C3. Using of electromagnetic waves in communication</p> <p>Assessment Unit 1- 14-15 January 2020</p> <p>Unit 2:</p> <p>Practical Scientific Procedures</p> <p>Assignment</p> <p>A: undertake titration & colorimetry to determine the concentration of solutions: P1- standardise solutions for titration</p> <p>P2- titration & colorimetry</p>	<p>Unit 2:</p> <p>Practical Scientific Procedures</p> <p>Assignment</p> <p>A: undertake titration & colorimetry to determine the concentration of solutions: P1- standardise solutions for titration</p> <p>P2- titration & colorimetry</p> <p>C: undertake chromatography techniques to identify components in mixtures P5- use chromatographic techniques</p> <p>P6</p>	<p>Unit 2:</p> <p>Practical Scientific Procedures</p> <p>Assignment</p> <p>A: undertake titration & colorimetry to determine the concentration of solutions M1 & D1</p> <p>C: undertake chromatography techniques to identify components in mixtures M3 & D3</p> <p>Assessment Unit 1 RETAKE</p>	<p>Unit 2:</p> <p>Practical Scientific Procedures</p> <p>Assignment</p> <p>B: undertake calorimetry to study cooling curves P3 & P4</p> <p>B: undertake chromatography techniques to identify components in mixtures P5 & P6</p> <p>D: Review personal development of scientific skills for laboratory work P7 & M4 & D4</p>
Year 13						

Psychology	Autumn term		Spring term		Summer term	
	HT1	HT2	HT3	HT4	HT5	HT6
Year 12	<p>Paper 1 → Psychopathology → -Mental Disorders (Phobias, Depression, OCD) -Features of Mental Disorders -Behavioural, Cognitive and Biological explanations for them -Behavioural, Cognitive and Biological treatments for them</p> <p>Assessment</p>	<p>Paper 1 → Attachment → -Features of attachment -Development of attachment -Explanations for attachment -Types of attachment -Cultural variations in attachment -Maternal derivation -Institutionalisation -The influence of early attachment -Animal studies of attachment</p> <p>Assessment</p>	<p>Paper 1 → Social Influence → -Types of conformity -Explanations for conformity -Asch (1956) (Variables affecting conformity) -Zimbardo (1973) (Conformity to social roles) -Milgram (1963) (Situational variables affecting obedience) -Agentic state -The Authoritarian personality -Resisting social influence -Minority and majority influence -Social change</p> <p>Assessment</p>	<p>Paper 1 → Memory → -Short-term and long-term memory -The Multi-store model -The Working memory model -Types of long-term memory -Explanations for forgetting -Eyewitness memory -Improving the accuracy of eyewitness memory</p> <p>Assessment</p>	<p>Paper 2 → Approaches and Biopsychology → -The origins of Psychology -The Behavioural approach -Social learning theory -The Cognitive approach -The Biological approach -The Nervous system -Neurons and synaptic transmission -The Endocrine system -The fight or flight response</p> <p>Assessment</p>	<p>Paper 2 → Research Methods → -Experiments -Sampling -Ethical issues -Observations -Self-reports -Correlations -Measures of central tendency and dispersion -Types of data -Distributions -Mathematical skills -Statistical testing -Peer review</p> <p>Assessment</p>
Year 13	<p>Paper 2 → A2 Approaches and Biopsychology → -The Psychodynamic approach -The Humanistic approach -Localisation of function -Split-brain research -Plasticity and functional recovery -Techniques used to study the brain -Circadian, ultradian and infradian rhythms</p>	<p>Paper 3 → Relationships → -Evolutionary explanations -Physical attractiveness -Self-disclosure -Filter theory -Social exchange theory -Equity theory -The investment model -Relationship breakdown -Virtual relationships</p>	<p>Paper 3 → Schizophrenia → -Features/symptoms -Reliability and Validity of diagnosis -Explanation for schizophrenia -Treatments for schizophrenia -Interactionist approach</p>	<p>Paper 3 → Aggression → -Biological explanations -Ethological explanation -Evolutionary explanation -The frustration-aggression hypothesis -Social learning theory -Deindividuation -Institutional aggression -The media and aggression</p>	<p>Paper 3 → Issues and debates → -Gender bias -Culture bias -Free will and determinism -The nature-nurture debate -Holism and reductionism -Idiographic and nomothetic approaches -Ethical implications</p>	

	<p>-Endogenous pacemakers and exogenous zeitgebers</p> <p><u>Assessment</u></p> <p>Students study A2 Research Methods and statistics throughout year 13.</p>	<p>-Parasocial relationships</p> <p><u>Assessment</u></p>	<p><u>Assessment</u></p>	<p><u>Assessment</u></p>	<p><u>Assessment</u></p>	
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