



**Subject: Science**

Year 9 BIOLOGY (3 per fortnight)		
	Theme	Teaching
1	Inheritance, Chromosomes, Genes and DNA	L1 - Genes, chromosomes and DNA L2 - Developing the model of DNA L3 - Inheritance
2		
3	Inheritance, Chromosomes, Genes and DNA	"L1 - Variation (continuous and discontinuous) L2 - Variation investigation (continuous and discontinuous graphs) L3 - Variation (inherited and environmental)"
4		
5	Progress Check	L1 - Revision L2 - Progress Check L3 - Review
6		
7	Inheritance, Chromosomes, Genes and DNA	L1 - Differences in species L2 - Evolution L3 - Natural selection"
8		
9	Inheritance, Chromosomes, Genes and DNA	L1 - Natural selection (seeds and beans) L2 - Extinction L3 - Preserving DNA
10		
11	Catch Up and Consolidation	L1 - L2 - L3 -
12		
13	Progress Check	L1 - Revision L2 - Progress Check L3 - Review
14		
15	Investigative Skills (Microscopes RP)	L1 - Plant and Animal Cell Recap L2 -Microscopes Theory L3 - Microscopes Practical
16		
17	Investigative Skills (Microscopes RP)	L1 -Write Up L2 - Exam Practise
18	<b>Summative I</b>	L1 - Revision L2 - Summative L3 - Review
19		
20	Bridging Topic - Cells and Transport	L1 -Eukaryotic Cells L2 - Prokaryotic Cells L3 - Microscopes Recap
21		

Year 9 CHEMISTRY (3 per fortnight)		
	Theme	Teaching
1	Materials	L1 - Reactivity Series L2 - Displacement of Metals L3 - Metal Extraction
2		
3	Materials	L1 - Making Composites L2 - Testing Composites L3 - Ceramics & Polymers
4		
5	Progress Check	L1 - Revision L2 - Progress Check L3 - Review
6		
7	Earth and Atmosphere	L1 - Structure of The Earth L2 - Rock Cycle L3 - Choc Cycle
8		
9	Earth and Atmosphere	L1 - Earth's resources L2 - Atmosphere L3 - Greenhouse effect & Human Impact
10		
11	Catch Up and Consolidation	L1 - L2 - L3 -
12		
13	Progress Check	L1 - Revision L2 - Progress Check L3 - Review
14		
15	Investigative Skills - Atoms, Elements and Compounds	L1 - Atoms and Elements L2 - Compounds L3 - Mixtures
16		
17	Investigative Skills - Atoms, Elements and Compounds	L1 - Compounds Practical L2 - Write Up
18	<b>Summative I</b>	L1 - Revision L2 - Summative L3 - Review
19		
20	Bridging Topic - Atomic Structure and Bonding	L1 - Development of Model Atom L2 - Subatomic Particles L3 - Size and Mass of Atoms
21		

Year 9 PHYSICS (3 per fortnight)		
	Theme	Teaching
1	Light Waves	L1 - comparing light and sound waves and speed of light L2 - transmission and scattering of light L3 -reflection
2		
3	Light Waves	L1 -refraction L2 - Lens , eyes and cameras L3 - coloured light
4		
5	Progress Check	L1 - Revision L2 - Progress Check L3 - Review
6		
7	Space Physics	L1 - mass, weight and gravity L2 - universe and galaxies L3 -sun and solar system
8		
9	Space Physics	L1 - Days, years seasons L2 - Scale and distance (light years) L3 -Planetary data
10		
11	Catch Up and Consolidation	L1 - L2 - L3 -
12		
13	Progress Check	L1 - Revision L2 - Progress Check L3 - Review
14		
15	Investigative Skills (Density RP)	L1 - Density Theory L2 - Density Prac (Regular) L3 - Density Prac (Liquids)
16		
17	Investigative Skills (Density RP)	L1 - Density Prac (Irregular) L2 - Write Up / Exam Practice
18	<b>Summative I</b>	L1 - Revision L2 - Summative L3 - Review
19		
20	Bridging Topic - Particle Model of Matter	L1 - States of Matter L2 - Changes of State L3 - Density RP Recap
21		



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Year 9 BIOLOGY (3 per fortnight)		
	Theme	Teaching
22	Bridging Topic - Cells and Transport	L1 -Specialised Cells L2 - Cell Differentiation L3 - Mitosis and the Cell Cycle
23		
24	Progress Check	L1 - Stem Cells L2 - Progress Check L3 - Therapeutic Cloning
25		
26	Bridging Topic - Cells and Transport	L1 - Diffusion L2 - Diffusion and Exchange L3 - Osmosis
27		
28	<b>SUMMATIVE 2</b>	
<b>Start GCSE</b>		
29	Spec 1 - Cells and Transport	Osmosis & active transport
30	Spec 2 - Organisation	Organisation, Digestive system, Enzymes & bile
31		
32	Spec 2 - Organisation	Rate of enzyme activity, Required Practical & write up
33		
34	Spec 2 - Organisation	Food test required practical & write up, Progress check
35		
36	Spec 2 - Organisation	Target time, The heart & blood vessels
37		
38	Spec 2 - Organisation	Blood, CHD & Treatment & the lungs
39		

Year 9 CHEMISTRY (3 per fortnight)		
	Theme	Teaching
22	Bridging Topic - Atomic Structure and Bonding	L1 - Relative Atomic Mass L2 - Electronic Structure L3 - The Periodic Table
23		
24	Progress Check	L1 - Revision L2 - Progress Check L3 - Review
25		
26	Bridging Topic - Atomic Structure and Bonding	L1 - Development of the Periodic Table L2 - Metals and Non-Metals L3 - Group 1
27		
28	<b>SUMMATIVE 2</b>	
<b>Start GCSE</b>		
29	Spec 1 - Atomic Structure and Bonding (GCSE Rebranded)	L1 - Group 7 L2 - Group 0 L3 - Revision
30		
31	Spec 2	Ionic bonding, Ionic compounds, Properties of ionic compounds
32		
33	Spec 2	Covalent Bonding 1, Covalent bonding 2 Properties of small molecules
34		
35	Spec 2 Progress Check	Progress Check Target Time
36	Spec 2 Progress Check	Progress Check Target Time
37	Spec 2	Metallic bonding, Metals and alloys, Giant Covalent Structures
38		
39	Spec 2	Graphene and fullerenes, Particle Model of Matter and Changes of State

Year 9 PHYSICS (3 per fortnight)		
	Theme	Teaching
22	Bridging Topic - Particle Model of Matter	L1 - Internal Energy L2 - Temperature Changes in a System L3 - Specific Heat Capacity
23		
24	Progress Check	L1 - Revision L2 - Progress Check L3 - Review
25		
26	Bridging Topic - Particle Model of Matter	L1 - Specific Heat Capacity Practical L2 - Specific Latent Heat L3 - Particle Motion in Gases
27		
28	<b>SUMMATIVE 2</b>	
<b>Start GCSE</b>		
29	Spec 4 - Atomic Structure	Structure of an Atom Mass Number & Atomic Number Ions and Isotopes
30		
31	Spec 4 - Atomic Structure	Development of Model Atom Radioactive Decay
32		
33	Spec 4 - Atomic Structure	Progress Check Target Time
34	Spec 4 - Atomic Structure	Half Life Half Life Graphs Nuclear Equations
35		
36	Spec 4 - Atomic Structure	Contamination vs Irradiation Fukushima - a case study
37	Spec 4 - Atomic Structure	Progress Check Target Time
38	Spec 1 - Energy	Energy Stores Energy Transfers in a System Gravitational Potential Energy
39		



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Year 10 BIOLOGY		
	Theme	Teaching
1	Spec 2 - Organisation	Gas exchange, Progress check & Target time
2		
3	Spec 2 - Organisation	Health issues & lifestyle, Cancer, Plant tissues & organs
4		
5	Spec 2 - Organisation	Transpiration, Translocation, Progress check
6		
7	Spec 2 - Organisation/Spec 3 - Infection & response	Target time, Communicable diseases, Bacterial diseases
8		
9	Spec 3 - Infection & response	Viral, fungal & protists diseases,
10		
11	<b>SUMMATIVE I</b>	
12	<b>SUMMATIVE I Target Time</b>	
13	Spec 3 - Infection & response	Human defence systems, White blood cells, Vaccinations
14		
15	Spec 3 - Infection & response	Antibiotics & painkillers, Drug discovery & development
16		
17	Spec 3 - Infection & response	Progress check & Target time
18	Spec 4 - Bioenergetics	Photosynthesis & limiting factors
19	Spec 4 - Bioenergetics	Required practical & write up, Aerobic respiration
20		
21	Spec 4 - Bioenergetics	Anaerobic respiration, Response to exercise, metabolism

Year 10 CHEMISTRY		
	Theme	Teaching
1	Spec 5	Exothermic and endothermic reactions, Required Practical - Energy, Required Practical - Application lesson
2		
3	Spec 5	Energy Profile diagrams, Exam question practice lesson
4		
5	Spec 5	Progress Check Target Time
6		
7	Spec 4	Metal oxides, Reactivity series, Extraction of metals
8		
9	Spec 4	Metals and acids, Neutralisation, Soluble salts
10		
11	<b>SUMMATIVE I</b>	
12	<b>SUMMATIVE I Target Time</b>	
13	Spec 4	Required Practical - Making salts, Application lesson - making salts, pH scale,
14		
15	Spec 4	Electrolysis, Using electrolysis, Aqueous Electrolysis
16		
17	Spec 4	Required practical - Electrolysis
18	Spec 4 Progress Check	Progress Check Target Time
19	Spec 3	Conservation of mass, Relative formula mass/ Mr, Mass changes when a reactant or product is a gas
20		
21	Spec 3	

Year 10 PHYSICS		
	Theme	Teaching
1	Spec 1 - Energy	Kinetic Energy Elastic Potential Energy GPE, KE and EPE Conversions
2		
3	Spec 1 - Energy Progress Check	GPE, KE, EPE calculations Progress Check Target Time
4		
5	Spec 1 - Energy	Thermal Energy RP Specific Heat Capacity of Metal Block
6		
7	Spec 1 - Energy	RP Specific Heat Capacity of Metal Block Conduction, Convection & Radiation Recap
8		
9	Spec 1 - Energy	Efficiency & Conservation of Energy Power National & Global Energy Resources
10		
11	<b>SUMMATIVE I</b>	
12	<b>SUMMATIVE I Target Time</b>	
13	Spec 2 Electricity	Circuit Symbols & Diagrams Building Series and Parallel Circuits Rules in Series & Parallel Circuits
14		
15	Spec 2 Electricity	Electric Charge & Current Ohms Law RP Resistance of a wire
16		
17	Spec 2 Electricity Progress Check	RP Resistors in Series & Parallel Progress Check Target Time
18	Spec 2 Electricity Progress Check	RP Resistors in Series & Parallel Progress Check Target Time
19	Spec 2 Electricity	Ohmic & Non-Ohmic Conductors LDR's & Thermistors
20		
21	Spec 2 Electricity	RP IV Characteristics



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Year 10 BIOLOGY		
	Theme	Teaching
22	<b>SUMMATIVE 2</b>	
23	<b>SUMMATIVE 2</b>	
24	Spec 5 - Homeostasis	Homeostasis, The nervous system & reflex arc, Required practical on reaction time
25		
26	Spec 5 - Homeostasis	Progress check & Target time
27		
28	Revision	Spec 1-4 revision
29	<b>SUMMATIVE 3 (YEAR 10 EXAMS)</b>	
30	<b>SUMMATIVE 3 (YEAR 10 EXAMS)</b>	
31	Spec 5 - Homeostasis	The endocrine system & Blood glucose, diabetes
32		
33	Spec 5 - Homeostasis	Hormones in reproduction, Contraception,
34		
35	Spec 5 - Homeostasis	Progress check & Target time
36	Spec 6 - Inheritance & evolution	Sexual & asexual reproduction, Meiosis, DNA & the genome
37		
38	Spec 6 - Inheritance & evolution	Inheritance - Gender, Characteristics, Disorders
39		

Year 10 CHEMISTRY		
	Theme	Teaching
22	<b>SUMMATIVE 2</b>	
23	<b>SUMMATIVE 2</b>	
24	Spec 3	Chemical measurements, Concentration of solutions, Revision
25		
26	Revision	Spec 1-5
27		
28	Revision	Spec 1-5
29	<b>SUMMATIVE 3 (YEAR 10 EXAMS)</b>	
30	<b>SUMMATIVE 3 (YEAR 10 EXAMS)</b>	
31	Spec 8	Pure substances, Formulations, Chromatography
32		
33	Spec 8	Required practical - Chromatography, Application lesson - required practical, Tests for gases
34		
35	Spec 8 Progress Check	Progress Check Target Time
36	Spec 8 Progress Check	Progress Check Target Time
37	Spec 9	Earth's early atmosphere, Oxygen increase - carbon dioxide decrease, Greenhouse
38		
39	Spec 9	Global climate change and carbon footprint

Year 10 PHYSICS		
	Theme	Teaching
22	<b>SUMMATIVE 2</b>	
23	<b>SUMMATIVE 2</b>	
24	Spec 2 Electricity	Ohms Law in Series & Parallel Circuits
25		
26	Spec 2 Electricity	Mains Electricity Power in Circuits Energy Transfers in Appliances
27		
28	Spec 2 Electricity	The National Grid & Transformers
29	<b>SUMMATIVE 3 (YEAR 10 EXAMS)</b>	
30	<b>SUMMATIVE 3 (YEAR 10 EXAMS)</b>	
31	Spec 5 Forces	Scalars & Vectors, Contact & Non-contact Gravity & Weight Resultant Forces
32		
33	Spec 5 Forces	Work Done & Energy Transferred Forces and Elasticity x2
34		
35	Spec 5 Forces	RP - Extension of a Spring Distance vs Displacement
36	Spec 5 Forces	RP - Extension of a Spring Distance vs Displacement
37	Spec 5 Forces Progress Check	Progress Check Target Time
38		
39	Spec 5 Forces	Velocity



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Year 11 BIOLOGY		
	Theme	Teaching
1	Spec 6 - Inheritance & evolution	Progress check & target time
2		
3	Spec 6 - Inheritance & evolution	Variation, Evolution & evidence, Selective breeding
4		
5	Spec 6 - Inheritance & evolution	Genetic engineering, fossils & extinction, classification
6		
7	<b>SUMMATIVE 1</b>	
8	Spec 6 - Inheritance & evolution	Resistant bacteria
9	Spec 7 - Ecology	Communities, Abiotic & biotic factors, adaptations
10		
11	Spec 7 - Ecology	Levels of organisation, Required practical on sampling & the write up
12		
13	Revision	
14	<b>SUMMATIVE 2 MOCK EXAM PERIOD</b>	
15	<b>SUMMATIVE 2 MOCK EXAM PERIOD</b>	
16	Spec 7 - Ecology	Carbon & the water cycle, Diversity & maintaining diversity, land use & waste management
17		
18	Spec 7 - Ecology	Global warming & deforestations
19		
20		
21	Spec 7 - Ecology	Progress check & target time

Year 11 CHEMISTRY		
	Theme	Teaching
1	Spec 9	Pollutants from fuels, Progress Check, Target Time
2		
3	Spec 7	Crude oil, hydrocarbons and alkanes, Fractional distillation, Properties of hydrocarbons
4		
5	Spec 7	Cracking and alkenes
6		
7	<b>SUMMATIVE 1</b>	
8	Spec 10	Earth's resources and reducing the use of resources, Potable water and waste water treatment, Required Practical - Water purification
9		
10	Spec 10	Application lesson - Required Practical, LCAs
11	Spec 10	Application lesson - Required Practical, LCAs
12	Summative 2 MOCK EXAM PERIOD	Revision
13		
14	<b>SUMMATIVE 2 MOCK EXAM PERIOD</b>	
15	<b>SUMMATIVE 2 MOCK EXAM PERIOD</b>	
16	Spec 6	Collision theory, Calculating rates, Required practical - Sodium thiosulphate
17		
18	Spec 6	Required practical - magnesium and acid, Application lesson - required practical, Activation energy and catalysts
19		
20		
21	Spec 6 Progress Check	Progress Check Target Time

Year 11 PHYSICS		
	Theme	Teaching
1	Spec 5 Forces	Distance Time Graphs Acceleration (simple and complex)
2		
3	Spec 5 Forces	VT Graphs RP - Acceleration
4		
5	Spec 5 Forces	Newtons Laws
6		
7	<b>SUMMATIVE 1</b>	
8	Spec 5 Forces	Stopping Distance, Reaction Time & Breaking Distance
9		
10	Spec 6 Waves	Transverse & Longitudinal Waves, Properties of Waves, Wave Calculations
11	Spec 6 Waves	Transverse & Longitudinal Waves, Properties of Waves, Wave Calculations
12	Spec 6 Waves	RP Ripple Tank & Waves in Solids
13		
14	<b>SUMMATIVE 2 MOCK EXAM PERIOD</b>	
15	<b>SUMMATIVE 2 MOCK EXAM PERIOD</b>	
16	Spec 6 Waves	Types and Properties of EM waves
17		
18	Spec 6 Waves	RP Absorption, Emission & Reflection of EM waves Uses and Applications of EM waves
19		
20		
21	Spec 6 - Waves Progress Check Start Spec 7 - Magnetism &	Progress Check Target Time Poles of a Magnet (Permanent & Induced Magnets)



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Year 11 BIOLOGY		
	Theme	Teaching
22	Revision	Paper 1 Revision Spec 1 - Cell & cell transport Spec 2 - Organisation
23	Revision	
24	Revision	Paper 1 Revision Spec 3 - Infection & response Spec 4 - Bioenergetics
25	<b>SUMMATIVE 3 EBACC MOCK EXAM PERIOD</b>	
26	Revision	Paper 1 Revision Spec 3 - Infection & response Spec 4 - Bioenergetics
27	Revision	
28	Revision	Paper 2 revision Spec 5 - Homeostasis Spec 6 - Inheritance
29	Revision	Paper 2 revision Spec 5 - Homeostasis Spec 6 - Inheritance
30	Revision	Paper 2 revision Spec 6 - Evolution Spec 7 - Ecology
31	Revision	
32	Revision	Paper 1 revision All Spec points
33	<b>GCSE EXAM PERIOD</b>	
34	<b>GCSE EXAM PERIOD</b>	
35	<b>GCSE EXAM PERIOD</b>	
36	<b>GCSE EXAM PERIOD</b>	
37	<b>GCSE EXAM PERIOD</b>	
38		
39		

Year 11 CHEMISTRY		
	Theme	Teaching
22	Spec 6	Reversible reactions, Equilibrium
23		
24	Revision	Paper 2 Revision Spec 9 - Chemistry Spec 7 - Organic Chemistry
25	<b>SUMMATIVE 3 EBACC MOCK EXAM PERIOD</b>	
26	Revision	Paper 2 Revision Spec 6 - Rates of reaction Spec 8 - Chemical analysis
27	Revision	Paper 2 Revision Spec 10 - Using resources Spec 6 - Rates of reaction
28	Revision	Paper 2 Revision Spec 7 - Organic Chemistry Spec 9 - Chemistry of the atmosphere
29	Revision	Paper 1 Revision Spec 1 - Atoms and elements Spec 2 - Structure and bonding
30	Revision	Paper 1 Revision Spec 3 - Calculations
31	Revision	Paper 1 Revision Spec 4 - Chemical changes
32	Revision	Paper 1 Revision Spec 5 - Energy changes
33	<b>GCSE EXAM PERIOD</b>	
34	<b>GCSE EXAM PERIOD</b>	
35	<b>GCSE EXAM PERIOD</b>	
36	<b>GCSE EXAM PERIOD</b>	
37	<b>GCSE EXAM PERIOD</b>	
38		
39		

Year 11 PHYSICS		
	Theme	Teaching
22	Spec 7 Magnetism & Electromagnetism	Magnetic Fields around a Bar Magnet, Solenoid and Wire Electromagnets
23		
24	Revision	Paper 2 Spec 5 - Forces x2 Spec 6 - Wave
25	<b>SUMMATIVE 3 EBACC MOCK EXAM PERIOD</b>	
26	Revision	Paper 2 Spec 5 - Forces Spec 6 - Wave Spec 7 - Electromagnetism Interventions from Summative 3
27		
28	Revision	Paper 1 Spec 1 - Energy Spec 2 - Electricity x2
29	Revision	Paper 1 Spec 1 - Energy Spec 2 - Electricity x2
30	Revision	Paper 1 Spec 3 - The Particle Model Spec 4 - Atomic Structure x2
31		
32	Revision	Paper 2 Spec 7 - Electromagnetism
33	<b>GCSE EXAM PERIOD</b>	
34	<b>GCSE EXAM PERIOD</b>	
35	<b>GCSE EXAM PERIOD</b>	
36	<b>GCSE EXAM PERIOD</b>	
37	<b>GCSE EXAM PERIOD</b>	
38		
39		