



**Subject: Science**

Year 9 BIOLOGY (3 per fortnight)		
	Theme	Teaching
1	Inheritance, Chromosomes, Genes and DNA	L1 - Genes, chromosomes and DNA
2		L2 - Developing the model of DNA L3 - Inheritance
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 beaks) 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	Spec 1 - Cells and Transport (GCSE Rebranded)	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	Spec 1 - Atomic Structure and Bonding (GCSE Rebranded)	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	Spec 3 - Particle Model of Matter (GCSE Rebranded)	L1 - Changes of State L2 - Density Recap L3 - Density RP Recap
21		



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Year 9 BIOLOGY (3 per fortnight)		
	Theme	Teaching
22	Spec 1 - Cells and Transport (GCSE Rebranded)	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	Spec 1 - Cells and Transport (GCSE Rebranded)	L1 - Diffusion L2 - Diffusion and Exchange L3 - Osmosis
27		
28	<b>SUMMATIVE 2</b>	
	<b>Start GCSE</b>	
29	Spec 1 - Cells and Transport	L1 - Osmosis RP L2 - Active Transport
30	Spec 1 - Cells and Transport	Culturing microorganisms, Aseptic technique required practical, Testing antibiotics
31		
32	Spec 2 - Organisation	Organisation, The digestive system, Enzymes & bile
33		
34	Spec 2 - Organisation	Rate of enzyme activity, Required practical & write up
35		
36	Spec 2 - Organisation	Food tests required practical & write up
37		
38	Spec 2 - Organisation	Progress check & target time
39	Spec 2 - Organisation	The heart & blood vessels

Year 9 CHEMISTRY (3 per fortnight)		
	Theme	Teaching
22	Spec 1 - Atomic Structure and Bonding (GCSE Rebranded)	L1 - Relative Atomic Mass L2 - Electronic Structure L3 - The Periodic Table
23		
24	Progress Check	L1 - Revision L2 - Progress Check L3 - Review
25		
26	Spec 1 - Atomic Structure and Bonding (GCSE Rebranded)	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 - Transition metals
30		
31	Spec 2	Ionic bonding, Ionic compounds, Properties of ionic compounds
32	Spec 1/2	Progress Check Target Time
34	Spec 2	Covalent Bonding 1, Covalent bonding 2 Properties of small molecules
35		
36	Spec 2	Metallic bonding, Metals and alloys, Giant Covalent Structures
37		
38	Spec 2	Graphene and fullerenes, Particle Model of Matter and Changes of State, Nanoparticles
39		

Year 9 PHYSICS (3 per fortnight)		
	Theme	Teaching
22	Spec 3 - Particle Model of Matter (GCSE Rebranded)	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	Spec 3 - Particle Model of Matter (GCSE Rebranded)	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 Development of the Model of the Atom
30		
31	Spec 4 - Atomic Structure	Radioactive Decay Half Life Hazards Associated with Half Life
32		
33	Spec 4 - Atomic Structure	Progress Check Target Time
34	Spec 4 - Atomic Structure	Uses of Nuclear Radiation, Nuclear Equations Contamination vs Irradiation
35		
36	Spec 4 - Atomic Structure Progress Check	Fission & Fusion Progress Check Target Time
37		
38	Spec 1 - Energy	Energy Stores Energy Transfers in a System Gravitational Potential Energy
39		



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Year 10 BIOLOGY (4 per fortnight)		
	Theme	Teaching
1	Spec 2 - Organisation	Blood, CHD & treatment, The lungs & gas exchange
2		
3	Spec 2 - Organisation	Progress check & Target time
4	Spec 2 - Organisation	Health issues & lifestyle, Cancer
5	Spec 2 - Organisation	Plant tissues & organs, Transpiration, Translocation
6		
7	Spec 2 - Organisation	Progress check & Target time
8		
9	Spec 3 - Infection & response	Communicable diseases & Bacterial & Viral diseases
10	<b>SUMMATIVE I</b>	
11	<b>SUMMATIVE I</b>	
12	Spec 2 - Organisation	Fungal & Protist diseases
13	Spec 3 - Infection & response	Human defence systems, white blood cells, Vaccinations, Antibiotics & painkillers
14		
15	Spec 3 - Infection & response	Drug discovery & development, Monoclonal antibodies, Uses of monoclonal antibodies, Plant disease & defence
16		
17	Spec 3 - Infection & response	Progress check & Target time
18	Spec 4 - Bioenergetics	Photosynthesis, Limiting factors of photosynthesis, Required practical & write up.
19	Spec 4 - Bioenergetics	Aerobic & anaerobic respiration, response to exercise, metabolism
20		
21	Revision	

Year 10 CHEMISTRY (5 per fortnight)		
	Theme	Teaching
1	Spec 5	Exothermic and endothermic reactions, Required Practical - Energy, Required Practical - Application lesson, Energy Profile diagrams, Energy changes
2		
3	Spec 5	Progress Check Target Time
4		
5	Spec 4	Metal oxides, Reactivity series and extraction of metals, Oxidation and reduction HT, Cells and batteries, Application lesson - Exam question practice
6		
7	Spec 4	Metals and acids, Neutralisation, Titrations, Required practical - Titration, Application lesson - Titration required practical
8		
9	Spec 4	Soluble salts, required Practical - Making salts, Application lesson - making salts, pH scale, Strong and Weak acids
10	<b>SUMMATIVE I</b>	
11	<b>SUMMATIVE I</b>	
12	Spec 4	Soluble salts, required Practical - Making salts, Application lesson - making salts, pH scale, Strong and Weak acids
13	Spec 4	Progress Check, Target Time
14		
15	Spec 4	Electrolysis, Using electrolysis, Aqueous Electrolysis, Half-equations, Fuel Cells
16		
17	Spec 4	Required Practical - Electrolysis, Application lesson - Electrolysis required practical, Progress Check, Target Time
18	Spec 4	Required Practical - Electrolysis, Application lesson - Electrolysis required practical, Progress Check, Target Time
19	Spec 3	Conservation of mass, Relative formula mass/ Mr, Mass changes when a reactant or product is a gas, Chemical measurements, Moles
20		
21	Spec 3	Reacting masses 1, Reacting masses 2, Using moles to balance equations, Limiting reactants, Application lesson - using the Molar equation

Year 10 PHYSICS (5 per fortnight)		
	Theme	Teaching
1	Spec 1 - Energy	Kinetic Energy Elastic Potential Energy GPE, KE and EPE Conversions & Calculations
2		
3	Spec 1 - Energy Progress Check	Recap & Revision Progress Check Target Time Thermal Energy
4		
5	Spec 1 - Energy	RP Specific Heat Capacity of Metal Block Efficiency Conservation of Energy
6		
7	Spec 1 - Energy	RP Insulators Power National & Global Energy Resources
8		
9	Spec 1 - Energy	Recap & Revision Progress Check Target Time Spec 3 Recap Lesson
10		
11	Spec 2 Electricity	Circuit Symbols & Diagrams Building Series and Parallel Circuits Rules in Series & Parallel Circuits Electric Charge & Current Current Resistance and Potential Difference (Ohms Law)
12		
13	Spec 2 Electricity	RP Resistance of a wire RP Resistors in Series and Parallel Revision
14		
15	Spec 2 Electricity Progress Check	Progress Check Target Time Ohmic & Non-Ohmic Conductors LDR's & Thermistors
16		
17	Spec 2 Electricity	RP IV Characteristics Ohms Law in Series & Parallel Circuits and Comparisons
18	Spec 2 Electricity	RP IV Characteristics Ohms Law in Series & Parallel Circuits and Comparisons
19	Spec 2 Electricity	Mains Electricity Power in Circuits Energy Transfers in Appliances
20		
21	Spec 2 Electricity	The National Grid & Transformers Static Electricity Electric Fields



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Year 10 BIOLOGY (4 per fortnight)		
	Theme	Teaching
22	<b>SUMMATIVE 2</b>	
23	<b>SUMMATIVE 2</b>	
24	Spec 5 - Homeostasis	Homeostasis, The nervous system & reflex arc, Reaction time required practical, The brain
25		
26	Spec 5 - Homeostasis	The eye & sight, eye defects,
27	Spec 5 - Homeostasis	Progress check & Target time
28	Spec 5 - Homeostasis	Temperature control, Revision
29	<b>SUMMATIVE 3 (YEAR 10 EXAMS)</b>	
30	<b>SUMMATIVE 3 (YEAR 10 EXAMS)</b>	
31	Spec 5 - Homeostasis	The endocrine system, Controlling blood glucose, Diabetes
32		
33	Spec 5 - Homeostasis	Water balance, Kidney Failure
34		Progress check & Target time
35	Spec 5 - Homeostasis	Hormones in reproduction, Contraception & IVF, Negative feedback, Plant hormones & uses
36	Spec 5 - Homeostasis	Hormones in reproduction, Contraception & IVF, Negative feedback, Plant hormones & uses
37	Spec 5 - Homeostasis	Seedling response required practical & write up
38		
39	Spec 5 - Homeostasis	Progress check & Target time

Year 10 CHEMISTRY (5 per fortnight)		
	Theme	Teaching
22	<b>SUMMATIVE 2</b>	
23	<b>SUMMATIVE 2</b>	
24	Spec 3	Reacting masses 1, Reacting masses 2, Using moles to balance equations, Limiting reactants, Application lesson - <del>write the Molar equation</del>
25	Spec 3 Progress Check	Percentage yield and atom economy, Concentrations, Volume of gases, Progress Check, Target Time
26		
27	Revision	Spec 1-5
28		
29	<b>SUMMATIVE 3 (YEAR 10 EXAMS)</b>	
30	<b>SUMMATIVE 3 (YEAR 10 EXAMS)</b>	
31	Spec 8	Pure substances, Formulations, Chromatography, Required practical - chromatography, Application lesson - required practical
32		
33	Spec 8	Progress check, Target Time, Tests for gases, Flame tests, Metal hydroxides
34		
35	Spec 8	<del>Carbonates, Halides and sulphides, Required Practical - Chemical Test, Application lesson - Required Practical, Instruments Methods, FEM</del>
36	Spec 8	<del>Carbonates, Halides and sulphides, Required Practical - Chemical Test, Application lesson - Required Practical, Instruments Methods, FEM</del>
37	Spec 8	Chemical tests recap - Chromatography and Gases, Chemical tests recap - Positive ions, Chemical tests recap - Negative ions, Application lesson - Positive vs negative ions
38		
39	Spec 8	Progress Check, Target Time

Year 10 PHYSICS (5 per fortnight)		
	Theme	Teaching
22	<b>END OF PAPER 1</b>	
23	<b>SUMMATIVE 2</b>	
24	Spec 5 Forces	Scalar & Vector, Contact/Non Contact Gravity & Weight Resultant Forces
25		
26	Spec 5 Forces	Resultant Forces Work Done and Energy Transferred Forces and Elasticity RP Extension of a Spring
27		
28	Revision	
29	<b>SUMMATIVE 3 (YEAR 10 EXAMS)</b>	
30	<b>SUMMATIVE 3 (YEAR 10 EXAMS)</b>	
31	Spec 5 Forces	Moments, Levers & Gears Pressure in Fluids Atmospheric Pressure
32		
33	Spec 5 Forces	Distance & Distancement Speed & Average Speed Velocity
34		
35	Spec 5 Forces Progress Check	Recap & Revision Progress Check Target Time DT Graphs
36	Spec 5 Forces Progress Check	Recap & Revision Progress Check Target Time DT Graphs
37	Spec 5 Forces	Acceleration VT Graphs Newtons 2nd Law Acceleration RP
38		
39	Spec 5 Forces	Acceleration RP



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Year 11 BIOLOGY (5 per fortnight)		
	Theme	Teaching
1	Spec 6 - Inheritance & Evolution	Sexual & Asexual reproduction, Advantages & disadvantages of sexual & asexual reproduction Meiosis, DNA & the genome, DNA & structure & protein synthesis
2		
3	Spec 6 - Inheritance & Evolution	Inheritance - Gender, Characteristics, Disorders, Understanding genetics, Variation, Evolution & evidence for evolution
4		
5	Revision	Revision for summative 1
6		
7	<b>SUMMATIVE 1</b>	
8	Spec 6 - Inheritance & Evolution	Theory of evolution & speciation.
9	Spec 6 - Inheritance & Evolution	Progress check & target time
10	Spec 7 - Ecology	Communities, Abiotic & biotic factors
11	Spec 7 - Ecology	Adaptations, Level of organisation, Sampling theory lesson, Sampling required practical, Sampling write up
12		
13	Revision	Revision for Mock exam period
14	<b>SUMMATIVE 2 MOCK EXAM PERIOD</b>	
15	<b>SUMMATIVE 2 MOCK EXAM PERIOD</b>	
16	Spec 7 - Ecology	Carbon & Water cycle, Decay, Decay required practical & write up, Impact of change
17		
18	Spec 7 - Ecology	Diversity & maintaining diversity, Land use & waste management, Global warming, Deforestation, Pyramids of biomass
19		
20	Spec 7 - Ecology	Progress check & target time
21	Spec 7 - Ecology	Food production, Intensive farming, Fishing, Biotechnology

Year 11 CHEMISTRY (5 per fortnight)		
	Theme	Teaching
1	Spec 7	Crude oil, hydrocarbons and alkanes, Fractional distillation, Properties of hydrocarbons, Cracking and alkenes, Alkene structure
2		
3	Spec 7	Alkene reactions, Alcohols, Carboxylic acids, Addition and condensation polymerisation, Amino acids and DNA
4		
5	Spec 7 Progress Check	Fractional distillation vs Cracking, Functional groups recap 1, Functional groups recap 2, Progress Check, Target Time
6		
7	<b>SUMMATIVE 1</b>	
8	Spec 9	Earth's early atmosphere, Oxygen increase and carbon dioxide decrease, Greenhouse effect, Global climate change and carbon footprint, Pollutants from fuels
9		
10	Spec 9 Progress Check	Progress Check, Target Time
11	Spec 10	Earth's resources, Potable water and waste water treatment, Required practical - water purification, Application lesson - required practical, Alternative methods
12		
13	Revision	Revision
14	<b>SUMMATIVE 2 MOCK EXAM PERIOD</b>	
15	<b>SUMMATIVE 2 MOCK EXAM PERIOD</b>	
16	Spec 10	LCAs, Corrosion and prevention, Alloys and uses, ceramics, polymers and composites
17		
18	Spec 10	Alloys and uses, ceramics, polymers and composites
19		
20	Spec 6	Collision theory, Calculating rates, Required Practical - Sodium thiosulphate, Required Practical - Magnesium and acid, Activation energy and catalysts
21		

Year 11 PHYSICS (4 per fortnight)		
	Theme	Teaching
1	Spec 5 Forces	Newtons 1st Law Newtons 3rd Law Stopping Distance & Reaction Time Factors affecting braking distance
2		
3	Spec 5 Forces	Momentum Conservation of Momentum Changes in Momentum
4		
5	Spec 6 Waves	Transverse & Longitudinal Waves Properties of Waves Wave Calculations
6		
7	<b>SUMMATIVE 1</b>	
8	Spec 6 Waves	RP Ripple Tank & Waves in Solids Reflection of Waves
9		
10	Spec 6 Waves	RP Reflection & Refraction of Light Sound Waves Waves for Detection & Evaluation
11	Spec 6 Waves	RP Reflection & Refraction of Light Sound Waves Waves for Detection & Evaluation
12	Spec 6 Waves	Properties of EM waves RP absorption, Emission & reflection of EM Waves
13		
14	<b>SUMMATIVE 2 MOCK EXAM PERIOD</b>	
15	<b>SUMMATIVE 2 MOCK EXAM PERIOD</b>	
16	Spec 6 Waves	Uses and Applications of EM waves Lenses Visible Light
17		
18	Spec 6 Waves Progress Check	Black Body Radiation Progress Check Target Time
19		
20	Spec 7 Magnetism & Electromagnetism	Poles of a Magnet, Magnetic Fields around a Bar Magnet, a wire and a Solenoid Flemings Left Hand Rule & Magnetic Flux Density
21		



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Year 11 BIOLOGY (5 per fortnight)		
	Theme	Teaching
22	Spec 7 - Ecology	Food production, Intensive farming, Fishing, Biotechnology
23	Revision	Revision for Mock exam period
24	Revision	Revision for Mock exam period
25	<b>SUMMATIVE 3 EBACC MOCK EXAM PERIOD</b>	
26	Revision	Paper 1 Revision Spec 1 - Cells & Cell transport Spec 2 - Organsation
27		
28	Revision	Revision Paper 1 Spec 3 - Infection & response Spec 4 - Bioenergetics
29	Revision	Revision Paper 1 Spec 3 - Infection & response Spec 4 - Bioenergetics
30	Revision	Paper 2 Revision Spec 5 - Homeostasis Spec 6 Inheritance & evolution
31	Revision	Paper 2 Revision Spec 7 - Ecology Recap of other spec points
32	Revision	
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 (5 per fortnight)		
	Theme	Teaching
22	Spec 6	Reversible reactions and equilibrium, The effect of changing conditions on equilibrium 1, The effect of changing conditions on equilibrium 2, Haber process and NPK
23		
24	Spec 6 Progress Check	Collision theory recap, Required practical recap, Equilibrium recap, Progress Check, Target Time
25	<b>SUMMATIVE 3 EBACC MOCK EXAM PERIOD</b>	
26	Revision	Paper 2 Revision Spec 6 - Rates of reaction Spec 7 - Organic Chemistry
27		
28	Revision	Paper 1 Revision Spec 8 - Chemical analysis Spec 9 - Chemistry of the atmosphere Spec 10 - Using resources
29	Revision	Paper 1 Revision Spec 1 - Atoms and elements Spec 2 - Structure and bonding
30	Revision	Paper 1 Revision Spec 3 - Calculations Spec 4 - Chemical changes
31		
32	Revision	Paper 1 Revision Spec 2 - Structure and bonding 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 (4 per fortnight)		
	Theme	Teaching
22	Spec 7 Magnetism & Electromagnetism	Motors Loudspeakers Induced Potential (the generator effect) Uses of the Generator Effect
23		
24	Spec 7 Magnetism & Electromagnetism	Microphones Transformers
25	<b>SUMMATIVE 3 EBACC MOCK EXAM PERIOD</b>	
26	Spec 8 Space Physics	Our Solar System Life Cycle of a Star Orbital Motion & Satellites Red Shift
27		
28	Revision	Paper 2 Interventions from Summative 3
29	Revision	Paper 2 Spec 5 - Forces Spec 6 - Waves Spec 7 - Electromagnetism Spec 8 - Space Physics
30		
31	Revision	Paper 1 Spec 1 - Energy Spec 2 - Electricity Spec 3 - The Particle Model Spec 4 - Atomic Structure
32		
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		