Stanchester Academy

Curriculum Sequencing Overview – Year 10 Triple Science

Week	1	2	3	4	5	6	7	8
Unit Theme and Assessed Knowledge/ Skills	Biol: B4 Plant Biology & respiration Chem: C3 Quantitative Chem Phys: P3 Particle Model							
Biology	B4.1 Photosynthesis B4.2 Light intensity RP	B4.3 Light intensity RP part 2 B4.4 Increasing Food production	B2.18 Leaf Structure B2.19 Stomata	B2.20 Transpiration B2.21 Factors affecting transpiration	B2.22 Translocation B4.5 Uses of Glucose	**B4 Plant Biol** review **& assess**	B4.6 Aerobic Respiration B4.7 Anaerobic Respiration in humans	B4.8 Response to exercise B4.9 Anaerobic respiration in plants & yeast
Chemistry	Chem 3.1 Equations & Balancing C3.2 Ar & Mr	C3.3 % by mass C3.4 Measurement & Uncertainty	C3.5 Masses & gases C3.6 Moles	C3.7 Reacting masses C3.8 Using Moles **& C3 Masses & Moles assessment**	C3.9 Limiting Reactants C3.10 Concentration	C3.11 Yield C3.12 Atom Economy	C3.13 Titrations practical C3.14 Titrations calculations	C3.15 Review **C3 Quantitative Chem Assess**
Physics	P3.1 Density	P3.2 RP Density P3.3 Change of State	P3.4 Internal Energy P3.5 SHC *(remember that this was covered in Yr9 too)*	P3.6 Latent Heat P3.7-8 Motion of Particles in a gas	P3.9-10 Pressure & Volume in gases Particle Model Review time	**P3 Particle Model Assessment** P4.1 Atomic Structure	P4.1b Isotopes and abundance P4.2 Model of the atom	P4.3 Radioactivity P4.4 Nuclear Equations
Key Assessments				**C3 Masses & Moles**		**B4 Plant Biol** **P3 Particle Model**		**C3 Quantitative**

Week	9	10	11	12	13	14	15	16
Unit Theme and Assessed Knowledge/ Skills	Biol: B3 Infection & Disease Chem: C4 Chemical Changes Phys: P4 Atomic Structure							
Biology	B4.10 Metabolism Biol 3 Types of Disease & revisited	Biol 3 immunity & vaccination revisited B1 Culturing microorganisms	B1 RP investigating disinfectants B3 Monoclonal antibodies	B3 Uses of monoclonal antibodies B3 Plant Diseases	B3 Plant defences Biol 3 Drug development revisited	**Communicable Disease assess** Biol 2 Non-communicable disease: Heart disease risk factors & treatments	B2 Lifestyle & smoking B2 Food tests RP revisited	B2 Digestive System & Enzymes RP revisited B1 Diffusion & Osmosis RP revisited
Chemistry	C1 Transition Metals C2 Nanoparticles	Chem 4.1 Metal Oxides C4.2 Reactivity Series	C4.3 Extraction of metals C4.4 Displacement Reactions	C4.5 Metals & Acids C4.6 Neutralisation	C4.7 Making soluble salts C4.8 Making salts pt 2	C4.9 pH & neutralisation	**C4 Metal reactions** review & assess C4.10 Titrations RP	C4.11 Strong & Weak acids C4.12 Electrolysis
Physics	P4.5 Half Life P4.6 Irradiation & Contamination	P4.7 Background Radiation P4.8 Hazards & Uses of radiation	P4.9 Nuclear Fission P4.10 Nuclear Fusion	P4 Review **P4 Assessment**	P1 Revision: Energy stores & transfers P1 Revision: Insulation RP, dissipation & efficiency	P2 Revision: Current Electricity P2 Revision: Energy & Electricity calculations	P2 Triple content: Static Electricity P2 Triple Content: Electric fields	**Phys Paper 1 Mock Exam**
Key Assessments				**P4 Atomic Structure**		**B3 Communicable Disease**	**C4 Metal reactions**	**Phys Paper 1 Mock Exam**

Week	17	18	19	20	21	22	23	24
Unit Theme and Assessed Knowledge/ Skills	Biol: Mock Exam, and Biol 5 Homeostasis Chem: Chem 5 Energy Changes Phys: Phys 5 Forces							
Biology	**B1 Mock Exam** B1 Mock Review	B1 Mock Review / interventions B1 Mock interventions	B5.1 Homeostasis B5.2 Nervous System	B5.3 Reflex actions B5.4 The Brain	B5.5 Ruler drop RP B5.6 The Eye	B5.7 Seeing in Focus B5.8 Eye defects	B5.9 Controlling temperature B5.10 Endocrine System	B5.11 Controlling Glucose B5.12 Diabetes
Chemistry	C4.13 Electrolysis of molten C4.14 Electrolysis & Metal extraction (aluminium)	C4.15 Electrolysis of solutions C4.16 RP electrolysis of solutions	**C4 Assess** Intervention time	C5.1 Endo/Exo reactions C5.2 RP Temp changes (planning)	C5.2 RP Temp changes (practical) C5.3 Reaction Profiles	C5.4 Calculating Energy Changes C5.5 Cells & Batteries	C5.6 Fuel Cells Revision – Periodic table Groups	Revision – Chem Bonding **Chem Paper 1 Mock Exam**
Physics	Review Mock & Interventions	P5.1 Scalar & Vector P5.2 Mass & Weight	P5.3 Resultant Forces P5.4 Free body diagrams	P5.5 Resolving Vectors P5.6 Work done	P5.7 Forces & Elasticity P5.8 RP Stretching Springs	P5.9 Work on a spring **P5 Forces & Elasticity assess**	P5.10 Moments P5.11 Levers & Gears	P5.12 Pressure in Fluids P5.13 Upthrust
Key Assessments	**B1 Mock Exam**		**C4 Chem Change**			**P5 Forces & Elasticity**		**Chem Paper 1 Mock Exam**

Week	25	26	27	28	29	30	31	32
Unit Theme and Assessed Knowledge/ Skills	Biol 5: Homeostasis Chem: Chem 6 Rates of chemical change Phys: Phys 5 Forces							
Biology	Work Exp	B5.13 Diabetes recommendations **Biol 5 Nervous System & Blood Sugar Assess**	B5.14 Water Balance B5.15 Kidneys	B5.17 Kidney Failure B5.18 Negative Feedback	B5.19 Human Reproduction B5.20 IVF	B5.21/2 IVF evaluation B5.23 Contraception	B5.24 Which Contraceptive B5.25 Auxins	B5.26 Application of Auxins B5.27 RP Plant Tropisms
Chemistry	Work Exp	Mock Exam Review Mock interventions (Unit 1?)	Mock interventions (Unit 2?) Mock interventions (Unit 3?)	C6.1 Measuring Rates (pt1) C6.2 Measuring Rates (pt2)	C6.3 RP Concentration (gas)	C6.4 RP Concentration (turbidity) C6.5 Surface Area	C6.6 Collision Theory C6.7 Reversible Reactions	C6.8 Equilibrium **C6 Rates Assess**
Physics	Work Exp	P5.14 Atmospheric Pressure P5.15 Distance, Displacement, Speed, Velocity	P5.16 Distance-time graphs P5.17 Acceleration & Deceleration	P5.18 Velocity-time graphs P5.19 Equations of motion	P5.20 Terminal Velocity **P5 Motion assessment**	P5.21 Newtons 1st Law P5.22 Newtons 2nd Law	P5.23 RP F=ma P5.24 Newtons 3rd Law	P5.25 Stopping distances P5.26 Energy when stopping
Key Assessments		**Biol 5 Nervous System & Blood Sugar**			**P5 Motion**			**C6 Rates**

Week	33	34	35	36	37	38	39
Unit Theme and Assessed Knowledge/ Skills	Biol 7: Ecology Chem: C8 Chem Analysis Phys:						
Biology	B5.28 Other plant hormones **B5 Assess**	Interventions	B7.1 Ecosystems B7.2 Predator-prey	B7.3 Trophic levels & biomass B7.4 RP Sampling (pt1)	B7.5 RP Sampling (pt2) B7.6 Adaptations in animals	B7.7 Adaptations in plants **Review / B7 Assess**	CEW
Chemistry	C8.1 Pure Substances C8.2 Formulations	C8.3 Chromatography C8.4 Chromatography RP	C8.5 Gas Tests C8.6 Flame Tests	C8.7 Metal Hydroxide Testing C8.8 Anion Tests	C8.9 RP Mystery Substance C8.10 Instrumental Methods	C8 Review **C8 Chem Analysis Test**	
Physics	P5.27 Momentum P5.28 Conservation of momentum	P5.29 Rate of change of momentum P5 Review	**Phys 5 Forces assessment**	Intervention	Numeracy – using equations Numeracy – significant figs & handling data	Paper 1 revisited Paper 1 revisited	
Key Assessments	**Biol 5 Homeostasis**		**Phys 5 Forces**			**Biol 7 Ecosystems Chem 8 Analysis**	