Triple Science: Y10 Exam Topic Checklist

Topic BIOLOGY	Class Notes	RAG	Revised
Topic 1: B1 Core Biology Concepts			
• Cells and organelles			
• Enzymes & pH			
• Microscope			
Topic 2: B2 Cells & Growth			
• Cancer			
• Growth & percentile charts			
• Cell cycle			
• Asexual reproduction			
Topic 3: B3 Genetics			
• Protein synthesis			
• DNA structure / Extraction			
• Inheritance			
Topic 4: B4 Evolution			
• Human genome project			
• Evidence of human evolution			
• Natural selection			
• Nitrogen cycle			
• Carbon cycle			
Topic 5: B5 Health & Disease			
• Plant defences to disease			
• Biological pest control			
• Double-blind trials			
• Immunity			
• Communicable diseases			
• Investigating antibiotics			
• Lifecycle of a virus			

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Topic CHEMISTRY	Class Notes	RAG	Revised
Topic 1: C3-4 Atoms and the Periodic Table			
• Atomic structure			
• Periodic table			
• Calculating relative atomic mass of isotopes			
Topic 2: C5-7 Bonding			
• Ionic bonding			
• Covalent bonding			
• Dot and cross diagrams			
Topic 3: C8 Acids			
• Producing Insoluble Salts			
• Indicators			
• Solubility			
• Titrations			
Topic 4: C9 Calculations / SC14 Quantitative Chemistry			
• Number of atoms			
• Maximum mass			
• Percentage by mass			
• Percentage yield and atom economy			
• Calculating concentrations from titrations			
Topic 5: C10 Electrolysis			
• Electrolysis			
Topic 6: C11 Extracting Metals			
• Extracting copper in the lab			
Topic 7: C12 / SC15-16			
• Dynamic equilibrium			
• Haber process			
• Fertilisers			

• Chemical cells			
Topic 8: SC13 Transition Metals			
• Transition metals			
• Alloys			

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Topic PHYSICS	Class Notes	RAG	Revised
Topic 1: P1-2 Motion and Forces			
• Speed			
• Distance-time graphs			
• Acceleration			
• Newton's laws of motion			
• Momentum			
Topic 2: P3 Conservation of Energy			
• Gravitational potential energy calculations			
• Kinetic energy calculations			
Topic 3: P4-5 Waves and the Electromagnetic Spectrum			
• Wave speed calculations			
• Waves and wave speed			
• Refraction			
• Power of a lens			
• Real and virtual images			
• Total internal reflection			
• Infrasound and ultrasound			
• Temperature and radiation			
Topic 4: P6 Radioactivity			
• Alpha, beta and gamma decay			
• Using radioactivity			
• Nuclear fission			
• Nuclear fusion			
• Half life calculations			
Topic 5: P7 Astronomy			
• Stars			
• Big Bang Theory			