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|  | **Autumn 1** | **Autumn 2**  | **Spring 1** | **Spring 2**  | **Summer 1**  | **Summer 2**  |
| **Biology and Chemistry****Teacher****LA****Physics****Teacher** **LP** | **B1 : Cell Biology**Cell Structure, differentiation and specialisationMicroscopyTissues, organs, and organ systemsTransport in cells diffusion/osmosis/active transport**C1: Atomic Structure and the Periodic Table**The periodic table.History of the atom Model of the atom, Structure of simple molecular substancesMetals and non metals Group 1 and group 7  | **B2 Organisation**Enzymes and DigestionFood tests. **B3 Infection and response**Viral, fungal. protist and bacterial diseases.Fighting disease: vaccination and drugs.Developing drugs**C2: Bonding, Structure and the Properties of Matter**Ionic bonding and ionic compoundsMetallic bonding | **B2 organisation cont.**Circulatory system Heart /blood vessels Cardiovascular disease.B3: Infection and response cont.Health and disease Risk actors for non-communicable disease cancer**4 Bonding, Structure and the Properties of Matter cont.** Covalent bondingStructure of simple molecular substances and larger covalent substances.Allotropes of carbonMetallic bonding | **B2 Organisation cont.**Health and disease cont.Risk factors for non-communicable diseaseThe lungs Exchange surfaces **C4: Chemical Changes**Acids and AlkalisReactivity of metals |  **B2 Organisation cont.**Plant cell organisation, transpiration and translocation.**C4: chemical changes cont.**Separating metals from metal oxides electrolysis |  **B 4. Bioenergetics**PhotosynthesisAerobic and anaerobic respirationExercise and metabolism**B7: Ecology**Adaptions, food chains/websUsing quadrats **C5: Energy changes**Exothermic /endothermic reactionsChem practical work/recap  |
| **Prior knowledge**Cell structure KS3Atoms, elements, compounds and mixtures. KS3Recap if necessary. | **Prior knowledge** C1: States of matter. Atomic structure Recap if necessary.  | **Prior Knowledge** B3 types of pathogenPrevention of disease C1 :Atomic structureRecap if necessary | **Prior knowledge** B1: Transport in cells diffusion/active transport. Recap if necessary. Disease types of pathogens. Recap if necessary. PH scale KS3 | **Prior Knowledge** B2:Cell structure /root hairs C2: Formation of Ions Metallic bonding Recap if necessary | **Prior knowledge** Ecology KS3 food chains/webs  |
| **P1: Energy (1)**Energy stores and transfersEnergy systemsConservation and dissipation of energyEnergy, work, power and efficiencyEnergy resources | **P3: Particle Model of Matter (1)**Thermal energy transfers (conduction, convection) Heat, temperature, internal energy and change of state. Pressure. Density. **P2: Electricity (1)**Circuits, electric charge, current and potential difference. Ammeters and voltmeters. Resistance and V=IR. Series and parallel circuits. | **P2: Electricity (2)**Resistance of a Wire, Circuit components and I-V characteristics. LDR’s and thermistors.DC vs AC. Mains electricity and electrical safety. Wiring a plug. Power and energy transfer. The National Grid. | **P5: Forces (1)**Contact and non-contact forces. Force fields.Weight, mass and gravity.Resultant forces and vector diagrams.Work done.Forces and elasticity. | **P6: Waves (1)**Transverse and longitudinal wavesElectromagnetic waves and the electromagnetic spectrum. Absorption and radiation of IR depending on surface type. Uses and applications of electromagnetic waves. | **P7 Magnetism and Electromagnetism (1)**Poles of a magnet. Magnetic materials. Permanent and induced magnets. Magnetic fields. Magnetic compass. Electromagnetism. |
|  | **Prior Knowledge**KS3: Energy | **Prior Knowledge**P1: Energy (1)KS3: Particle ModelKS3: Electrical Circuits | **Prior Knowledge**P2: Electricity (1) | **Prior Knowledge**P1: Energy (1)KS3: Forces | **Prior knowledge**P1: Energy (1)KS3: SoundKS3: Light | **Prior Knowledge**KS3 Magnetism and Electromagnets |

Skills covered: Throughout the course young people learn the key skills linked to The Development of Scientific Thinking, Experimental Skills and Strategies, Analysis and Evaluation, Scientific Vocabulary, Quantities, Units, Symbols and Nomenclature.

Literacy: Science target set to focus on developing a word bank for correct use and spelling of new scientific terminology/ words.

Assessment: In Yr.10 Science consists of an assessment during each term consisting of exam questions drawn from any area of the curriculum studied so far. In addition, students will be assessed on the quality of their written and spoken work during lessons and homework, and end-of-topic tests.

Exam Board: AQA Combined Science (Trilogy)