**Combined Science**

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| **Biology** | **Chemistry** | **Physics** |
| **CB1- Key Concepts in Biology**  CB1a Microscopes  CB1b Plant and Animal Cells/*Using Microscopes*  CB1c Specialised Cells  CB1d Inside Bacteria  CB1e Enzymes and Nutrition  CB1f Enzyme Action  CB1g Enzyme Activity  CB1h Transporting Substances *Osmosis in Potato*  **CB2- Cells and Control**  CB2a Mitosis  CB2b Growth in Animals  CB2c Growth in Plants  CB2d Stem Cells  CB2e The Nervous System  CB2f Neurotransmissions Speeds  **CB3- Genetics**  CB3a Meiosis  CB3bi DNA  CB3bii DNA Extraction  CB3c Alleles  CB3d Inheritance  CB3e Gene Mutation  CB3f Variation  **CB4- Natural Selection and Genetic Modification**  CB4a Evidence for Human Evolution  CB4b Darwin’s Theory  CB4c Classification  CB4d Breeds and Varieties  CB4e Genes in Agriculture and Medicine  **CB5- Health, Disease and the Development of Medicines**  CB5a Health and Disease  CB5b Non-Communicable Diseases  CB5c Cardiovascular Disease  CB5d Pathogens  CB5e Spreading Pathogens  CB5f Physical and Chemical Barriers  CB5g The Immune System  CB5h Antibiotics  **CB6- Plant Structures and Their Functions**  CB6a Photosynthesis  CB6b Factors that Affect Photosynthesis  *Light Intensity and Photosynthesis*  CB6c Absorbing Water and Mineral Ions  CB6d Transpiration and Translocation  **CB7- Animal Coordination, Control and Homeostasis**  CB7a Hormones  CB7b Hormonal Control of Metabolic Rate  CB7c The Menstrual Cycle  CB7d Hormones and the Menstrual Cycle  CB7e Control of Blood Glucose  CB7f Type 2 Diabetes  **CB8- Exchange and Transport in Animals**  CB8a Efficient Transport and Exchange  CB8b The Circulatory System  CB8c The Heart  CB8d Cellular Respiration/*Respiration Rates*  **CB9- Ecosystems and Material Cycles**  CB9a Ecosystems  CB9b Abiotic Factors and Communities  CB9c Biotic Factors and Communities  CB9d Parasitism and Mutualism  CB9e Biodiversity and Humans  CB9f Preserving Biodiversity  CB9g The Water Cycle  CB9h The Carbon Cycle  CB9i The Nitrogen Cycle | **CC1- States of Matter**  CC1a States of Matter  **CC2- Methods of Separating and Purifying Substances**  CC2a Mixtures  CC2b Filtration and Crystallisation  CC2c Paper Chromatography  CC2d Distillation/*Investigating Inks*  CC2e Drinking Water  **CC3- Atomic Structure**  CC3a Structure of an Atom  CC3b Atomic Number and Mass Number  CC3c Isotopes  **CC4- The Periodic Table**  CC4a Elements and the Periodic Table  CC4b Atomic Number and the Periodic Table  CC4c Electronic Configurations and the Periodic Table  **CC5- Ionic Bonding**  CC5a Ionic Bonds  CC5b Ionic Lattices  CC5c Properties of Ionic Compounds  **CC6- Covalent Bonding**  CC6a Covalent Bonding  **CC7- Types of Substances**  CC7a Molecular Compounds  CC7b Allotropes of Carbon  CC7c Properties of Metals  CC7d Bonding Models  **CC8- Acids and Alkalis**  CC8a Acids, Alkalis and Indicators  CC8b Looking at Acids  CC8c Bases and Salts/*Preparing Copper Sulfate*  CC8d Alkalis and Balancing Equations  CC8e Alkalis and Neutralisation  CC8f Reactions of Acids with Metals & Carbonates  CC8g Solubility  **CC9- Calculations Involving Masses**  CC9a Masses and Empirical Formula  CC9b Conservation of Mass  CC9c Moles  **CC10- Electrolytic Processes**  CC10a Electrolysis *of Copper Sulfate Solution*  CC10b Products of Electrolysis  **CC11- Obtaining and Using Metals**  CC11a Reactivity  CC11b Ores  CC11c Oxidation and Reduction  CC11d Life Cycle Assessment and Recycling  **CC12- Reversible Reactions and Equilibria**  CC12a Dynamic Equilibrium  **CC13- Groups in the Periodic Table**  CC13a Group 1  CC13b Group 7  CC13c Halogen Reactivity  CC13d Group 0  **CC14- Rates of Reaction**  CC14a Rates of Reaction  CC14b Factors Affecting Reaction Rates  *Investigating Reaction Rates*  CC14c Catalysts and Activation Energy  **CC15- Heat Energy Changes in Chemical Reactions**  CC15a Exothermic and Endothermic Reactions  CC15b Energy Changes in Reactions  **CC16- Fuels**  CC16a Hydrocarbons in Crude Oil and Natural Gas  CC16b Fraction Distillation of Crude Oil  CC16c The Alkane Homologous Series  CC16d Complete and Incomplete Combustion  CC16e Combustible Fuels and Pollution  CC16f Break Down Hydrocarbons  **CC17- Earth and Atmospheric Science**  CC17a The Early Atmosphere  CC17b The Changing Atmosphere  CC17c The Atmosphere Today  CC17d Climate Change | **CP1- Motion**  CP1a Vectors and Scalars  CP1b Distance/Time Graphs  CP1c Acceleration  CP1d Velocity/Time Graphs  **CP2- Forces and Motion**  CP2a Resultant Forces  CP2b Newton’s First Law  CP2c Mass and Weight  CP2d Newton’s Second Law  *Investigating Acceleration*  CP2e Newton’s Third Law  CP2f Momentum  CP2g Stopping Distances  CP2h Crash Hazards  **CP3- Conservation of Energy**  CP3a Energy Stores and Transfers  CP3b Energy Efficiency  CP3c Keeping Warm  CP3d Stored Energies  CP3e Non-Renewable Resources  CP3f Renewable Resources  **CP4- Waves**  CP4a Describing Waves  CP4b Wave Speeds/*Investigating Waves*  CP4c Refraction  **CP5- Light and the Electromagnetic Spectrum**  CP5a Electromagnetic Waves  *Investigating Refraction*  CP5b The Electromagnetic Spectrum  CP5c Using the Long Wavelengths  CP5d Using the Short Wavelengths  CP5e EM Radiation Dangers  **CP6- Radioactivity**  CP6a Atomic Models  CP6b Inside Atoms  CP6c Electrons and Orbits  CP6d Background Radiation  CP6e Types of Radiation  CP6f Radioactive Decay  CP6g Half-Life  CP6h Dangers of Radioactivity  **CP7- Energy-Forces Doing Work**  CP7a Work and Power  **CP8- Forces and Their Effects**  CP8a Objects Affecting Each Other  CP8b Vector Diagrams  **CP9 Electricity and Circuits**  CP9a Electric Circuits  CP9b Current and Potential Difference  CP9c Current, Charge and Energy  CP9d Resistance  CP9e More About Resistance  *Investigating Resistance*  CP9f Transferring Energy  CP9g Power  CP9h Transferring Energy by Electricity  CP9i Electrical Safety  **CP10- Magnetism and the Motor Effect**  CP10a Magnets and Magnetic Fields  CP10b Electromagnetism  CP10c Magnetic Forces  **CP11- Electromagnetic Induction**  CP11a Transformers  CP11b Transformers and Energy  **CP12- Particle Model**  CP12a Particles and Density/*Investigating Densities*  CP12b Energy and Changes of State  CP12c Energy Calculations  *Investigating Water*  CP12d Gas Temperature and Pressure  **CP13- Forces and Matter**  CP13a Bending and Stretching  *Investigating Springs*  CP13b Extension and Energy Transfers |