**Combined Science**

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| **Biology** | **Chemistry** | **Physics** |
| **CB1- Key Concepts in Biology**CB1a MicroscopesCB1b Plant and Animal Cells/*Using Microscopes*CB1c Specialised CellsCB1d Inside BacteriaCB1e Enzymes and NutritionCB1f Enzyme ActionCB1g Enzyme ActivityCB1h Transporting Substances *Osmosis in Potato***CB2- Cells and Control**CB2a MitosisCB2b Growth in AnimalsCB2c Growth in PlantsCB2d Stem CellsCB2e The Nervous SystemCB2f Neurotransmissions Speeds**CB3- Genetics**CB3a MeiosisCB3bi DNACB3bii DNA ExtractionCB3c AllelesCB3d InheritanceCB3e Gene MutationCB3f Variation**CB4- Natural Selection and Genetic Modification**CB4a Evidence for Human EvolutionCB4b Darwin’s TheoryCB4c ClassificationCB4d Breeds and VarietiesCB4e Genes in Agriculture and Medicine**CB5- Health, Disease and the Development of Medicines**CB5a Health and DiseaseCB5b Non-Communicable DiseasesCB5c Cardiovascular DiseaseCB5d PathogensCB5e Spreading PathogensCB5f Physical and Chemical BarriersCB5g The Immune SystemCB5h Antibiotics**CB6- Plant Structures and Their Functions**CB6a PhotosynthesisCB6b Factors that Affect Photosynthesis *Light Intensity and Photosynthesis*CB6c Absorbing Water and Mineral IonsCB6d Transpiration and Translocation**CB7- Animal Coordination, Control and Homeostasis**CB7a HormonesCB7b Hormonal Control of Metabolic RateCB7c The Menstrual CycleCB7d Hormones and the Menstrual CycleCB7e Control of Blood GlucoseCB7f Type 2 Diabetes**CB8- Exchange and Transport in Animals**CB8a Efficient Transport and ExchangeCB8b The Circulatory SystemCB8c The HeartCB8d Cellular Respiration/*Respiration Rates***CB9- Ecosystems and Material Cycles**CB9a EcosystemsCB9b Abiotic Factors and CommunitiesCB9c Biotic Factors and CommunitiesCB9d Parasitism and MutualismCB9e Biodiversity and HumansCB9f Preserving BiodiversityCB9g The Water CycleCB9h The Carbon CycleCB9i The Nitrogen Cycle | **CC1- States of Matter**CC1a States of Matter**CC2- Methods of Separating and Purifying Substances**CC2a MixturesCC2b Filtration and CrystallisationCC2c Paper ChromatographyCC2d Distillation/*Investigating Inks*CC2e Drinking Water**CC3- Atomic Structure**CC3a Structure of an AtomCC3b Atomic Number and Mass NumberCC3c Isotopes**CC4- The Periodic Table**CC4a Elements and the Periodic TableCC4b Atomic Number and the Periodic TableCC4c Electronic Configurations and the Periodic Table**CC5- Ionic Bonding**CC5a Ionic BondsCC5b Ionic LatticesCC5c Properties of Ionic Compounds**CC6- Covalent Bonding**CC6a Covalent Bonding**CC7- Types of Substances**CC7a Molecular CompoundsCC7b Allotropes of CarbonCC7c Properties of MetalsCC7d Bonding Models**CC8- Acids and Alkalis**CC8a Acids, Alkalis and IndicatorsCC8b Looking at AcidsCC8c Bases and Salts/*Preparing Copper Sulfate*CC8d Alkalis and Balancing EquationsCC8e Alkalis and NeutralisationCC8f Reactions of Acids with Metals & CarbonatesCC8g Solubility**CC9- Calculations Involving Masses**CC9a Masses and Empirical FormulaCC9b Conservation of MassCC9c Moles**CC10- Electrolytic Processes**CC10a Electrolysis *of Copper Sulfate Solution*CC10b Products of Electrolysis**CC11- Obtaining and Using Metals**CC11a ReactivityCC11b OresCC11c Oxidation and ReductionCC11d Life Cycle Assessment and Recycling**CC12- Reversible Reactions and Equilibria**CC12a Dynamic Equilibrium**CC13- Groups in the Periodic Table**CC13a Group 1CC13b Group 7CC13c Halogen ReactivityCC13d Group 0**CC14- Rates of Reaction**CC14a Rates of ReactionCC14b Factors Affecting Reaction Rates *Investigating Reaction Rates*CC14c Catalysts and Activation Energy**CC15- Heat Energy Changes in Chemical Reactions**CC15a Exothermic and Endothermic ReactionsCC15b Energy Changes in Reactions**CC16- Fuels**CC16a Hydrocarbons in Crude Oil and Natural GasCC16b Fraction Distillation of Crude OilCC16c The Alkane Homologous SeriesCC16d Complete and Incomplete CombustionCC16e Combustible Fuels and PollutionCC16f Break Down Hydrocarbons**CC17- Earth and Atmospheric Science**CC17a The Early AtmosphereCC17b The Changing AtmosphereCC17c The Atmosphere TodayCC17d Climate Change | **CP1- Motion**CP1a Vectors and ScalarsCP1b Distance/Time GraphsCP1c AccelerationCP1d Velocity/Time Graphs**CP2- Forces and Motion**CP2a Resultant ForcesCP2b Newton’s First LawCP2c Mass and WeightCP2d Newton’s Second Law *Investigating Acceleration*CP2e Newton’s Third LawCP2f MomentumCP2g Stopping DistancesCP2h Crash Hazards**CP3- Conservation of Energy**CP3a Energy Stores and TransfersCP3b Energy EfficiencyCP3c Keeping WarmCP3d Stored EnergiesCP3e Non-Renewable ResourcesCP3f Renewable Resources**CP4- Waves**CP4a Describing WavesCP4b Wave Speeds/*Investigating Waves*CP4c Refraction**CP5- Light and the Electromagnetic Spectrum**CP5a Electromagnetic Waves *Investigating Refraction*CP5b The Electromagnetic SpectrumCP5c Using the Long WavelengthsCP5d Using the Short WavelengthsCP5e EM Radiation Dangers**CP6- Radioactivity**CP6a Atomic ModelsCP6b Inside AtomsCP6c Electrons and OrbitsCP6d Background RadiationCP6e Types of RadiationCP6f Radioactive DecayCP6g Half-LifeCP6h Dangers of Radioactivity**CP7- Energy-Forces Doing Work**CP7a Work and Power**CP8- Forces and Their Effects**CP8a Objects Affecting Each OtherCP8b Vector Diagrams**CP9 Electricity and Circuits**CP9a Electric CircuitsCP9b Current and Potential DifferenceCP9c Current, Charge and EnergyCP9d ResistanceCP9e More About Resistance *Investigating Resistance*CP9f Transferring EnergyCP9g PowerCP9h Transferring Energy by ElectricityCP9i Electrical Safety**CP10- Magnetism and the Motor Effect**CP10a Magnets and Magnetic FieldsCP10b ElectromagnetismCP10c Magnetic Forces**CP11- Electromagnetic Induction**CP11a TransformersCP11b Transformers and Energy**CP12- Particle Model**CP12a Particles and Density/*Investigating Densities*CP12b Energy and Changes of StateCP12c Energy Calculations *Investigating Water*CP12d Gas Temperature and Pressure**CP13- Forces and Matter**CP13a Bending and Stretching *Investigating Springs*CP13b Extension and Energy Transfers |