

	YEAR 7	YEAR 8	YEAR 9
UNIT 1	<p>Ecology 1: Classification, Food Chains and Webs, Pyramids of Biomass and Numbers, Bioaccumulation, Predator Prey Relationships, Ecosystems, Adaptations, Sampling.</p> <p>Earth and Space: Structure of the Earth, Weathering, Sedimentary Rocks, Metamorphic and Igneous Rocks, The Rock Cycle, Ceramics, Day, Night and Seasons, Phases of the Moon, Solar System, Stars and Galaxies</p> <p>Forces 1: Introduction to Forces, Balanced and Unbalanced Forces, Mass and Weight, Making a Newton Meter, Density, Floating and Sinking, Speed, Distance Time Graphs.</p> <p>2 x Topic Quality Assessment 1 x Unit Exam</p>	<p>Ecology 2: Specialised Plant Cells, Photosynthesis, Plant Organs and Tissues, Diffusion in Plants, Osmosis, Osmosis in Plants Investigation, Plant Minerals</p> <p>Earth 2: Evolution of the Atmosphere, Global Warming, Carbon Cycle, Pollutant Gases, Acid Rain, Extracting Metals, Extracting Aluminium, Recycling, Evaluating Materials</p> <p>Forces 2: Friction and Air Resistance, Elastic Force, Moments, Moments and Levers, Pressure in Solids, Pressure in Liquids, Pressure in Gases.</p> <p>2 x Topic Quality Assessment 1 x Unit Exam</p>	<p>Biology Topic 1: Prokaryotic and Eukaryotic Cells, Aerobic and Anaerobic Respiration, Biotechnology, Diseases, Immune System, Vaccination, Antibiotics.</p> <p>Chemistry Topic 1: History of the Atom, Group 1 Structure and Properties, Group 7 Structure and Properties, Group 0 Structure and Properties, Ionic Bonding, Properties of Ionic Compounds, Electrolysis, Covalent Bonding, Properties of Simple Covalent Compounds.</p> <p>Physics Topic 1: Modelling Transverse and Longitudinal Waves, Sound and Ultra Sound, EM Spectrum, Uses of Light, Reflection, Dispersion and Refraction, Frequency and Wave Speed, Investigating Wave Speed.</p> <p>2 x Topic Quality Assessment 1 x Unit Exam</p>
UNIT 2	<p>Genes 1: Human Reproduction, Gestation, Puberty, Menstrual Cycle, Pollination, Seed Dispersal, Introduction to Variation, Types of Variation</p> <p>Matter 1: Particle Model, States of Matter, Melting and Freezing, Boiling, Elements, Compounds, Mixtures, Solutions, Solubility, Filtering, Evaporation, Distillation, Chromatography, Atomic Structure and the Periodic Table, Atomic Masses.</p> <p>Energy 1: Energy Stores, Energy Transfers, Food as Fuels, Efficiency, Energy Resources, The Energy Debate.</p> <p>2 x Topic Quality Assessment 1 x Unit Exam</p>	<p>Organisms 2: Food Tests, Digestive System, Enzymes, Circulatory System, The Heart, Blood Vessels, Pulmonary System, Respiration, Respiration and Exercise.</p> <p>Matter 2: Matter 1 Review, Chemical Formulae, The Periodic Table, Metal Structure, Properties of Metals, Group 1 Metals, Group 7 Non-Metals, Polymers and Their Properties</p> <p>Energy 2: Conservation of Energy, Work and Energy, Energy and Temperature, Conduction, Convection, Radiation and Insulation, Insulating the Home, Insulation Investigation.</p> <p>2 x Topic Quality Assessment 1 x Unit Exam</p>	<p>Biology Topic 2: DNA and Genes Recap, Mitosis, Meiosis, Natural Selection and Evolution, Genetic Crosses, Mendel, Genetic Disorders, Stem Cells</p> <p>Chemistry Topic 2: Recap Types of Chemical Reactions, Balancing Equations, Standard Form, Formula Mass and Moles, Reacting Masses, Percentage Yield, Concentration, Exothermic and Endothermic Reactions, Bond Energies.</p> <p>Physics Topic 2: Energy Review, Gravitational Potential Energy, Investigating Bounce, Efficiency, Energy and Power, Elastic Energy, Spring Constant.</p> <p>2 x Topic Quality Assessment 1 x Unit Exam</p>
UNIT 3	<p>Organisms 1: MRS GREN, Plant and Animal Cells, Observing Plant and Animal Cells, Specialised Cells, Diffusion, Levels of Organisation, Skeleton, Muscles and Joints.</p> <p>Reactions 1: Chemical Reactions, Word Equations, Metals and Water, Metals and Oxygen, Metals and Acid, Acids and Alkalis, Neutralisation, Making Salt, Displacement</p> <p>Electricity: Drawing and Building Circuits, Current in Series and Parallel Circuits, Potential Difference in Series and Parallel Circuits, Resistance, Plugs and Fuses, Electrical Safety</p> <p>2 x Topic Quality Assessment 1 x Unit Exam</p>	<p>Genes 2: DNA and Genes, Extracting DNA, Charles Darwin, Natural Selection, Extinction, Selective Breeding, Genetic Modification, Preserving Biodiversity.</p> <p>Reactions 2: Atoms in Reactions, Conservation of Mass, Combustion, Precipitation, Thermal Decomposition, Exothermic and Endothermic, Reaction Profiles</p> <p>Waves 1: Sound Waves and Speed, Pitch and Volume, Ear and Hearing, Reflection of Light, Light Spectrum and Seeing Colour, Refraction of Light, Lenses and Prisms, Eye and Vision.</p> <p>2 x Topic Quality Assessment 1 x Unit Exam</p>	<p>Biology Topic 3: Cells Review, Xylem and Phloem, Photosynthesis, Testing Leaves for Starch and Glucose, Biotic and Abiotic Factors for Photosynthesis, Sampling with a transect, Sampling Population.</p> <p>Chemistry Topic 3: Reactions Review, Collision Theory, Planning an Investigation on Rate of Reaction, Investigating Rates of Reaction, Displacement and Reactivity, Extracting Metals and Reactivity, Electrolysis Review, Electrolysis of Aluminium.</p> <p>Physics Topic 3: Electricity Review, Current, Potential Difference, Resistance, Investigating LDRs and Thermistors, Static Electricity, Magnets, Electromagnets</p> <p>2 x Topic Quality Assessment 1 x Unit Exam</p>