

Year group	Year 7
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Term 1	
Half term 1	Half term 2
Working Scientifically Lab Safety The Scientific Method (inc variables) Practical Skills and Measurements Tables and Graphs (inc bar/line graphs) Evaluating Experiments (inc anomalies) Particles and Energy Energy Stores Energy Transfers Energy Flow Diagrams States of Matter Changes of State and Density Cooling Curves Diffusion (include Brownian motion) Cells and Organisation Animal and Plant Cells Microscopes and Magnification Specialised cells Bacterial cells Cells, tissues, organs and organ systems	Forces and Movement Types of Forces (inc contact/non-contact) Balanced and Unbalanced Forces Skeletal system Muscles and movement Investigating Friction (revisit scientific method) Upthrust and Pressure Atoms, Elements, and Compounds Periodic Table and Element Symbols Metals and Non-metals Compounds and Formulae Mixtures vs Compounds Chemical and physical changes Intro to Word and Symbol Equations
Term 2	
Half term 1	Half term 2
Sound and Hearing Waves Intro Travel of sounding Pitch and loudness Ear structure Dangers of sound Light and Eyesight Light properties Reflection Refraction Structure of the eye Colours and filters Separation Techniques Elements, Compounds, Mixtures (recap) Dissolving and Solubility Filtration Chromatography Distillation	Reflexes and Behaviour Nervous System (inc reflexes) Impact of Drugs/Alcohol Innate and Learned Behaviour Human Body Systems Respiratory System Gas Exchange (revisit diffusion) Impact of Smoking Heart and Circulatory System Digestive System Balanced Diet Enzymes (revisit word equations) Factors affecting Enzyme Activity

Term 3	
Half term 1	Half Term 2
Reproduction Plant Reproduction Pollination and Seed Dispersal Mammal Reproductive Systems Gametes and Fertilisation (recap specialised cells) Puberty and the Menstrual Cycle Foetal Development and Birth Acids and Bases Examples and Properties of Acids and Bases Indicators and pH Scale Red Cabbage Indicator Neutralisation Reactions (recap word equations) Acid Reactions	Combustion and Fuels Burning and Fire Triangle Complete and Incomplete Combustion Burning Fuels Burning Metals and Non-metals Efficiency Renewable vs Non-Renewable Energy Sources Classification and Sampling 7 Life Processes and Cells Recap Linnean Classification and Vertebrate Groups Making Classification Keys Identifying Invertebrates (pond dipping) Identifying Plants (quadrat sampling)

Assessment Plans:	
Term 1	End of topic skills/recall based assessments. Low stakes MCQ/short answer quizzes throughout. 1 longer assessment after half term, based on topics from half term 1.
Term 2	End of topic skills/recall based assessments. Low stakes MCQ/short answer quizzes throughout. 1 longer cumulative assessment on content taught so far.
Term 3	End of topic skills/recall based assessments. Low stakes MCQ/short answer quizzes throughout. End of Year assessment on any Year 7 content.

Year group	8
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Term 1	
Half term 1	Half term 2
Plants and Photosynthesis Plant, Animal, and Bacterial Cell Recap Photosynthesis and Respiration Equations Leaf Structure and Adaptations Plant Minerals Plant Adaptations for Low Water Respiration Aerobic Respiration Anaerobic Respiration Effect of Exercise Investigation Uses of Microorganisms Chemical Equations Writing Formulae Recap Review of Year 7 Chemical Equations Conservation of Mass Balancing Chemical Equations	Electricity and Circuits Static Electricity (inc atomic structure recap) Conductors and Insulators Series and Parallel Circuits Current in Series and Parallel Potential Difference in Series and Parallel Resistance in Series and Parallel Magnets and Magnetic Fields Electromagnets Disease Types of Pathogens Disease Transmission Prevention and Treatment White Blood Cells and Human Defences Vaccination
Term 2	
Half term 1	Half term 2
Science Investigation Research Planning Investigation Concluding and Evaluating Presenting Findings Ecosystems and Interdependence Food Chains and Webs Decomposers Pyramids of number/biomass Animal Adaptations Predator-Prey Relationships Human Impacts on Ecosystems Heating and Cooling Conduction Convection Radiation Insulators	Forces and Speed Review of Balanced and Unbalanced Forces Laws of Motion Speed and Velocity Distance-Time Graphs Acceleration and Velocity-Time Graphs Periodic Table and Reactivity Group 1 Reactivity Series Displacement Reactions More Chemical Reactions Corrosion Types of Chemical Reaction Oxidation and Reduction Exothermic and Endothermic

Term 3	
Half term 1	Half Term 2
Inheritance Inherited and Environmental Characteristics Discontinuous and Continuous Variation Sex Determination and Inheritance Cloning Natural Selection and Evolution Selective Breeding Discovery of DNA Rocks Structure of the Earth Rock Types Rock Cycle Weathering Earth's Atmosphere Carbon Cycle (food chains, respiration, photosynthesis recap) Global Warming and Climate Change Human Impact on the Environment	Modern Materials Ceramics Polymers Composites Concrete Investigation Solar System Gravity and Weight Solar System Years, seasons and moon phases

Assessment Plans:	
Term 1	End of topic skills/recall based assessments. Low stakes MCQ/short answer quizzes throughout.
Term 2	End of topic skills/recall based assessments. Low stakes MCQ/short answer quizzes throughout. 1 longer cumulative assessment on content taught so far.
Term 3	End of topic skills/recall based assessments. Low stakes MCQ/short answer quizzes throughout. End of Year assessment on any KS3 content.