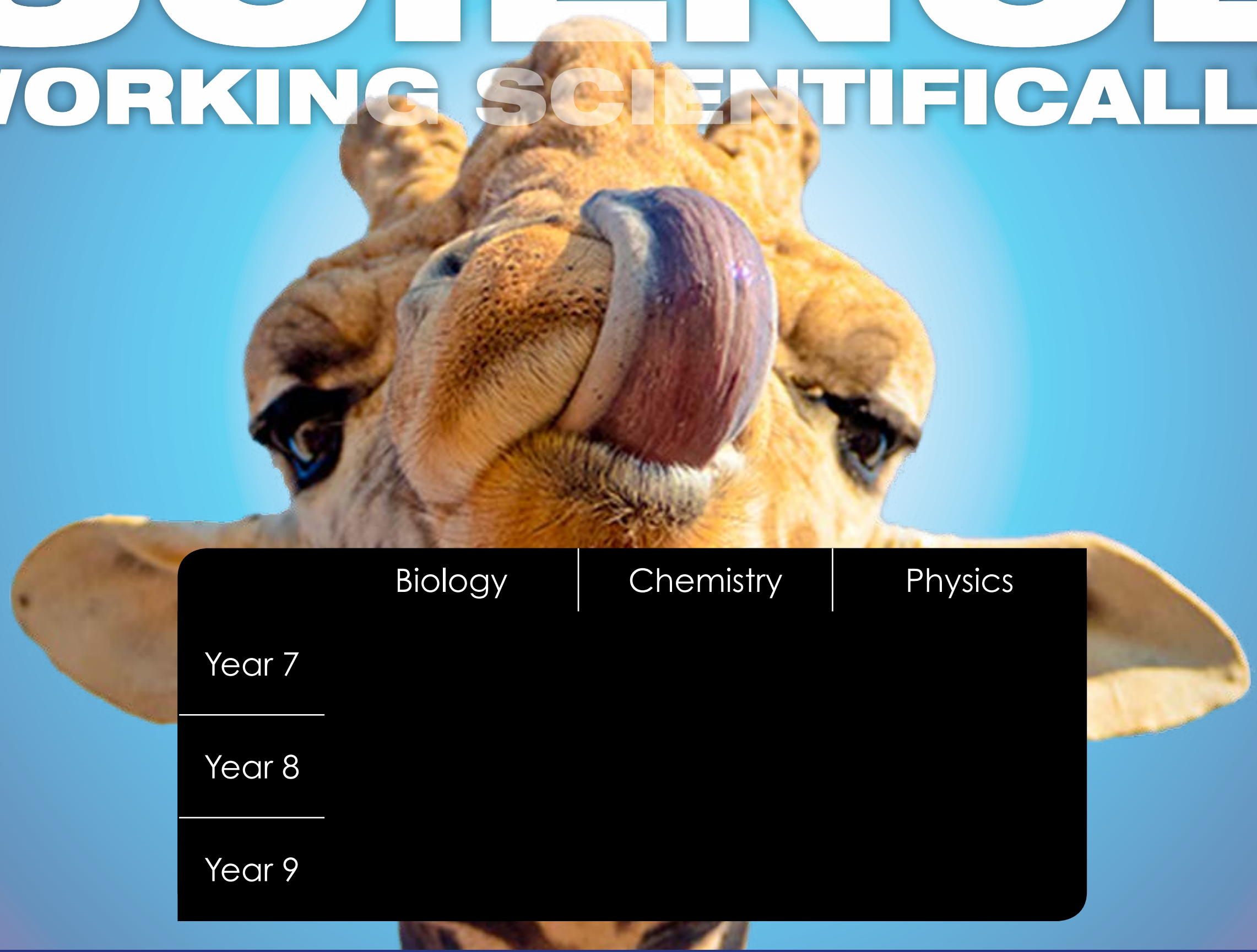


EXPLORING SCIENCE

WORKING SCIENTIFICALLY



	Biology	Chemistry	Physics
Year 7			
Year 8			
Year 9			


Biology Year 7

Unit	Topics covered	Working Scientifically focus	Literacy and communication focus
7A Cells, tissues, organs and systems	7Aa Life Processes 7Ab Organs 7Ac Tissues 7Ad Cells 7Ae Organ systems	Microscopes	Using conventions in writing
7B Sexual reproduction in animals	7Ba Animal sexual reproduction 7Bb Reproductive organs 7Bc Becoming pregnant 7Bd Gestation and birth 7Be Growing up	The Scientific Method	Making notes
7C Muscles and bones	7Ca Muscles and breathing 7Cb Muscles and blood 7Cc The Skeleton 7Cd Muscles and moving 7Ce Drugs	Scientific questions	Sentences
7D Ecosystems	7Da Variation 7Db Adaptations 7Dc Effects of the environment 7Dd Effects on the environment 7De Transfers of energy and poisons	Frequency diagrams and scatter graphs	Paragraphs

Biology Year 8

Unit	Topics covered	Working Scientifically focus	Literacy and communication focus
8A Food and digestion	8Aa Diets 8Ab Balanced diets 8Ac The digestive system 8Ad Enzymes and digestion 8Ae Absorbing nutrients	Calculating areas	Persuasive writing
8B Sexual Reproduction in plants	8Ba Plant variation 8Bb Types of reproduction 8Bc Pollination 8Bd Fertilisation L&C Linking paragraphs 8Be Seed dispersal	Sampling and estimation	Using punctuation
8C Breathing and respiration	8Ca Aerobic respiration 8Cb The breathing system 8Cc Getting enough oxygen 8Cd Respiration in different organisms 8Ce Anaerobic respiration	Calculating means	Planning a report/article
8D Unicellular organisms	8Da Cells 8Db Algae 8Dc Yeast and fungi 8Dd Helpful bacteria 8De Harmful bacteria	Biohazards and risk	Making detailed scientific descriptions

Biology Year 9

Unit	Topics covered	Working Scientifically focus	Literacy and communication focus
9A Genetics and Evolution	9Aa Genetic information 9Ab Chromosomes 9Ac DNA 9Ad Effects of the environment 9Ae Evolution	Probability	Developing a counter argument
9B Growing our food	9Ba Reactions in plants 9Bb Plant adaptations 9Bc Crop farming 9Bd Farming problems 9Be The carbon cycle	Evaluating secondary evidence	Writing a news article
9C Biology transition to GCSE			Spotting trigger words
9D Projects and revision			

Chemistry Year 7

Unit	Topics covered	Working Scientifically focus	Literacy and communication focus
7E Mixtures and Separation	7Ea Mixtures 7Eb Solutions 7Ec Evaporation 7Ed Chromatography 7Ee Distillation	Writing a method	Safety when heating
7F Acids and bases	7Fa Hazards 7Fb Indicators 7Fc The pH scale 7Fd Neutralisation 7Fe Neutralisation in everyday life	Controlling risk	Writing a title
7G The particle model	7Ga Solids, liquids and gases 7Gb Particles 7Gc Brownian motion 7Gd Diffusion 7Ge Air pressure	Hypotheses and theories	Making Comparisons
7H Atoms, elements and compounds	7Ha The air we breathe 7Hb Earth's elements 7Hc Metals and non-metals 7Hd Making compounds 7He Chemical reactions	Sorting our resources	Facts and opinions



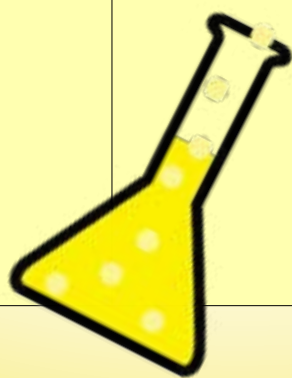
Chemistry Year 8

Unit	Topics covered	Working Scientifically focus	Literacy and communication focus
8E Combustion	8Ea Burning 8Eb Burning Fuels 8Ec Fire safety 8Ed Air pollution 8Ee Climate change	Percentages	Information and explanation text
8F The Periodic Table	8Fa Elements and their properties 8Fb Mendeleev's table 8Fc The atomic model 8Fd Trends in physical properties 8Fe Trends in chemical properties	Anomalous results	Using clauses to help describe and explain
8G Metals and their uses	8Ga Metals 8Gb Corrosion 8Gc Metals and water 8Gd Metals and acids 8Ge Pure and impure	Accuracy and observation	Facts
8H Rocks	8Ha Structure of the Earth 8Hb Sedimentary rocks 8Hc Igneous rocks 8Hd Metamorphic rocks 8he The changing Earth	Estimates	Making scientific descriptions



Chemistry Year 9

Unit	Topics covered	Working Scientifically focus	Literacy and communication focus
9E Making Materials	9Ea Ceramics 9Eb Polymers 9Ec Composites 9Ed Problems of synthetics 9Ee Recycling	Making decisions	Bias
9F Reactivity	9Fa Types of explosion 9Fb Reactivity 9Fc Competition 9Fd Energetic reactions 9Fe Extracting metals	Accuracy	Using appropriate voices
9G Chemistry transition to GCSE			Writing short answers
9H Projects and revision			



Physics Year 7

Unit	Topics covered	Working Scientifically focus	Literacy and communication focus
7I Energy and changes	7Ia – Energy from food 7Ib – Energy transfers and stores 7Ic – Fuels 7Id – Other energy resources 7Ie – Using resources	Ratios and percentages	Summarising
7J Electricity	7Ja – Switches and current 7Jb - Models for circuits 7Jc - Series and parallel circuits 7Jd – Changing the current 7Je - Using electricity	Models in science	Using tables
7K Forces	7Ka - Different forces 7Kb – Springs L&C 7Kc - Friction 7Kd - Pressure WS 7Ke – Balanced and unbalanced forces	SI units	Making and taking notes
7L Sound	7La - Making sounds 7Lb – Moving sounds 7Lc – Detecting sounds 7Ld – Using sound 7Le – Comparing waves	Line graphs and scatter graphs	Remembering

Physics Year 8

Unit	Topics covered	Working Scientifically focus	Literacy and communication focus
8I Fluids	8Ia Particle theory 8Ib Changing states 8Ic Pressure and movement 8Id Floating and sinking 8Ie Drag	Calculating densities	Making an authoritative scientific statement
8J Light	8Ja Light 8Jb Cameras and eyes 8Jc 8Kc Mirrors 8Jd 8Kd Lenses and prisms 8Je 8Ke Colour	Using a protractor	Giving a presentation
8K Energy transfers	8Ka Temperature changes 8Kb Transferring energy 8Kc Reducing energy transfers 8Kd Power 8Ke Paying for energy	Fair tests	How scientists communicate with different audiences
8L The Earth and Space	8La Solar System 8Lb Seasons 8Lc Finding your way 8Ld Stars 8Le Gravity	Isaac Newton	Planning an argument



Physics Year 9

Unit	Topics covered	Working Scientifically focus	Literacy and communication focus
9I Forces & motion	9Ia Speed, terminal velocity and forces in equilibrium 9Ib Distance/Time graphs 9Ic Moments 9Id Work done 9Ie Machines	Graphs	Writing for an audience
9J Electricity 2	9Ja Current electricity 9Jb Static electricity 9Jc Magnetic fields 9Jd Using magnetic fields 9Je Control		Cohesion
9G Physics transition to GCSE			Writing long answers
9H Projects and revision		