

Curriculum Area: Science - Physics

Subject Coordinator(s): Peter Mugridge

Year group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
7	Forces Introduction to forces Squashing and stretching Drag and friction Forces at a distance	Forces Balanced and unbalanced Sound Waves	Sound Vibration and energy transfer Detecting sound Echoes and ultra sound	Light Reflection Refraction The camera and the eye Colour	Space The night sky The solar system	Space The earth The moon
8	Electricity and magnetism Charging up Circuits and currents Potential difference Resistance	Electricity and magnetism Magnets and magnetic fields Electromagnets Using electromagnets	Energy Foods and fuel Energy adds up Energy and temperature	Energy Energy transfer Particles, radiation Energy resources Energy Power Energy and machines	Motion and Pressure Speed Motion Graphs Pressure in gases Pressure in liquids	Motion and pressure Pressure on solids Turning forces
9	New technology Your Phone Your house Your hospital intensive care, seeing inside	New technology Your sports Your planet	Turning points in Physics Discovering the universe 1 &2, The big bang, Spacecraft and satellites	Turning points in Physics Mission to the moon Radioactivity 1&2 Electromagnetism 1&2	Detection Detecting plan Detecting alien life Detecting positon	Detection Detecting messages Detecting particles
10	Matter The particle Model Changes of state	Forces Motion Newton's Laws Forces in action	Electricity and magnetism Static and charge Simple circuits Magnets and magnetic fields	Electricity and magnetism Simple circuits Magnets and magnetic fields	Waves and radioactivity Wave behaviour The electromagnetic spectrum radioactivity	Energy Work done Power and efficiency
11	Forces Motion Recap	Matter The particle Model Changes of state	Global changes Physics on the move Powering earth	Revision past papers	Revision	GCSE/ EXAMS

Curriculum Area: Science- Chemistry

Subject Coordinator(s): Peter Mugridge

Year group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
7	Particles- their behaviour The particles model States of matter Melting and freezing Boiling	Particles their behaviour More changes of state Diffusion	Elements atoms and compounds Elements Atoms Compounds Chemical formulae	Reactions Chemical reactions Word equations, Burning fuels Thermal decomposition Conservation and mass	Acids and alkalis Acid and alkalines Indicators and pH	Acids and alkalis Neutralisation Making salts
8	The Periodic table Metals and non-metals Groups and periods Element group 1 Elements group 7	The periodic table The elements group 0 Separation Techniques Mixtures Solutions	Separation Techniques Solubility Filtration Evaporation and distillation Chromatography	Metals and acids Metals and Oxygen, water, Metal displacement Extracting metals, Ceramics polymers Composites	The earth The earth and its atmosphere Sedimentary rocks The rock cycle	The Earth The carbon cycle Climate change recycling
9	New technology Nanoparticles Using nanoparticles Nanoparticles in medicine Nanoparticle safety	New technology Cars pros and cons New fuels Cleaning up exhausts Hybrid electric cars	Turning points in Chemistry Evidence for atoms Looking into atoms Discovering the periodic table	Turning points in Chemistry Lessons from fossils The oldest primates	Detection Break in Smelly problem Message in a bottle	Detection Body Clues in the carpet A week in court
10	GCSE Combined science Particles Particles Model Atomic structure	Elements compounds and mixtures Purity in separating mixtures	Elements compounds and mixtures Bonding Properties of materials	Chemical reactions Introducing chemical reactions, Energetics Types of chemical reactions Electrolysis	Predicting and identifying reactions and products Predicting chemical reactions	Monitoring and controlling chemical reactions Controlling reactions Equilibrium
11	Global changes Improving processes and products Interpreting and interacting with earth systems	Elements compounds and mixtures. Purity in separating mixtures Bonding Properties of materials	Chemical reactions Introducing chemical reactions recap Energetics Types of chemicals	Revision	Revision	GCSE/ EXAMs

Curriculum Area: Science- Biology

Subject Coordinator(s): Mel Thomas

Year group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
7	Safety in the laboratory Rules Lab equipment and hazard symbols Microscope work Plant and animal cells	Cells Movements of cells Unicellular cells The body systems Circulation	The structure and function of body systems Level of organisation Gas exchange, Breathing, Skeleton,	The structure and function of body systems Movements of joints Movement of Muscles	Reproduction Adolescence Reproductive systems Fertilisation and implantation Development of a foetus	Reproduction The Menstrual cycle Flowers and pollination Fertilisation and germination Seed dispersal
8	Recap safety Health and lifestyles Nutrients Food test Unhealthy diets Digestive system	Health and lifestyles Bacteria and enzyme indigestion Drugs, Alcohol and Smoking	Ecosystems processes Photosynthesis Leaves Plant minerals Chemosynthesis Aerobic respiration	Ecosystems processes Anaerobic respiration Food chains and webs Disruption of food chains and webs Ecosystems	Adaptation and Inheritance Competition and adaptation Adaption to change variation	Adaptation and Inheritance Inheritance Natural selection extinction
9	Recap safety New technology Genetics Inherited disorders Selective breeding	New technology Cloning Biotechnology 1 &2 Enzymes in industry	Turning points in Biology Vaccinations 1 & 2 Antibiotics 1& 2	Turning points in Biology DNA Charles Darwin Preventing Extinction	Detection Microscopy Finger printing DNA finger printing	Detection Blood Typing Time of death Pathology
10	GCSE Combined Science Cell level systems Cell structures What happens in cells	Cell Level Systems Respiration Photosynthesis	Scaling up Supplying the cell Diffusion, Osmosis transport	Scaling up The Challenge of size Circulation Systems	Organisms level systems Coordination and control The nervous system	Organism Level systems Coordination and control, The endocrine system, Maintaining internal environments
11	Community Level Systems Ecosystems	Genes Inheritance and Selection Inheritance Natural selection and evolution	Global Challenges Monitoring and maintaining the Environment and the population Monitoring and maintaining health	Revision Recap Past papers	Revision Recap	GCSE/ EXAMs