Science Set V
Curriculum Map: Year 9

AUTUMN TERM

Use simple science equipment during an experiment and record results

Introduction to Science Experiments Experiments

Lighting and Using a Bunsen burner

- Identifying & labelling the parts
- safety and use

SPRING TERM

Making and Experimenting with Slime

- Compare the properties of three different recipes of slime and the reaction of one in different storage conditions

- Healthy and unhealthy food & drink choices
- physical exercise
- emotional well-being

Healthy Lifestyles

SUMMER TERM

- Forces in everyday situations
- making a parachute
- friction on different surfaces
- the egg drop challenge

Investigating Forces

Introduction to Forensic Science

- Carry out paper chromatography, DNA fingerprinting, hair analysis and other techniques to collect evidence at a crime scene investigation

Animal Mascots

- Identify animals from the Winter Olympic Games
- Research and write up on one of them using films, video clips, the internet and books

Science Sets W, X
Curriculum Map: Year 9

AUTUMN TERM

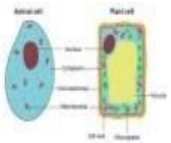
- Particle theory
- Changes of state
- Energy in particles

Chemical or Physical Change

Energy

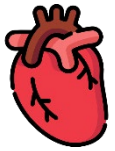
- Types of Energy
- Energy transfer
- Stored energy

Cell Biology



- Features of cells
- Specialised cells
- Cell division

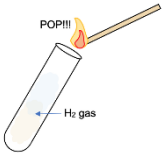
Cardiovascular System



- Adaptations of the cardiovascular system
- Blood and blood vessels
- Causes and treatment of Heart disease

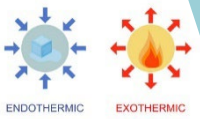
SPRING TERM

Chemical Analysis



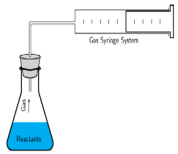
- Chromatography
- Purity & formulations
- Testing for gases

Energy Changes



- Endothermic reactions
- Exothermic reactions
- Energy profiles

Rate and Extent of Chemical Change

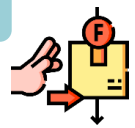


- Measuring rates of reaction
- Collision theory
- Factors affecting reaction rates

Electromagnetism

- Magnetic fields
- Permanent and induced magnets
- Electromagnetism

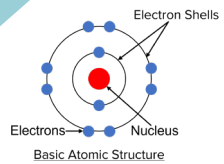
Forces



- Contact and non-contact forces
- Stopping distances
- Resultant forces

SUMMER TERM

Atomic Structure and the Periodic Table



- Structure of the atom
- Development of the periodic table
- Groups and periods
- Elements, compounds and reactivity

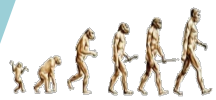
Clean Air and Water

- Evolution of the atmosphere
- Global warming
- Air pollution
- Water purification

Ecology

- Food Chains and Food Webs
- Interdependence
- Competition
- Human impact on biodiversity

Extinction and Evolution



- Formation of fossils
- Theories of evolution
- Classification

Pupils in sets W and X follow the Entry Level Science schemes of work. Each unit ends with a short assessment.

The order may change from the map to allow for sharing of lab space and resources.

Science Sets Y, Z
Curriculum Map: Year 9

AUTUMN TERM

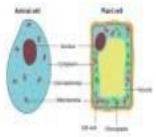
P3 Particle Model of Matter

- Density of materials
- Internal Energy and Energy transfer
- Particle model of matter

P1 Energy

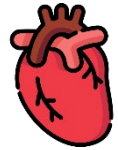
- Energy stores
- Energy changes
- Efficiency
- Energy Resources

B1 Cell Biology



- Cell structure
- Transport in cells
- Cell division
- Specialisation

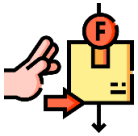
B2 Organisation



- The vascular system
- Adaptations of the cardiovascular system
- Causes and treatment of heart disease

SPRING TERM

P5 Forces

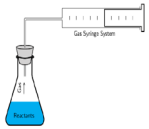


- Contact and non-contact forces
- Resultant forces
- Forces in Motion
- Newton's laws

P7 Electromagnetism

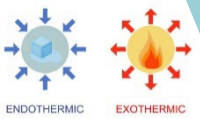
- Magnetic forces and fields
- Electromagnets
- The motor effect

C6 Rate and Extent of Chemical Change



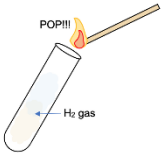
- Measuring rates of reaction
- Collision theory
- Factors affecting reaction rates
- Equilibrium

C5 Energy Changes



- Endothermic reactions
- Exothermic reactions
- Energy profiles

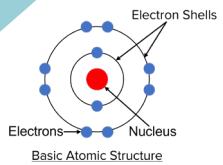
C8 Chemical Analysis



- Chromatography
- Purity
- Formulations
- Testing for gases

SUMMER TERM

C1 Atomic Structure and the Periodic Table



- Atoms, elements and compounds
- Structure of the atom
- The periodic table
- Reactivity

C9 Chemistry of the Atmosphere

- Evolution of the atmosphere
- Greenhouse gases
- Global Warming
- Atmospheric pollutants

B7 Ecology

- Adaptation, interdependence and competition
- Organisation of an ecosystem
- Biodiversity

B6 Extinction and Evolution

- Theories of evolution
- Evidence for evolution
- Classification

Pupils in sets Y and Z follow the AQA Trilogy GCSE schemes of work. Each unit ends with a short assessment.

The order may change to allow for sharing of lab space and resources.