

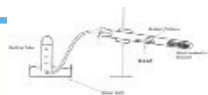
# Science (Year 10)

## Curriculum Map 2025-2026



### Organic Chemistry

- Describe how crude oil was formed
- Describe the structure of alkanes
- Explain the properties fractions of crude oil
- Describe fractional distillation and cracking
- Combustion



### Electricity

- Construct and draw circuits using symbols
- Describe rules for current and potential difference in circuits
- Apply  $V=IR$  and rules to series and parallel circuits
- Mains electricity and the national grid



**Mocks**  
Paper 1  
Biology,  
Chemistry &  
Physics

### Exam Preparation

- Required practical's
- Command words
- Application questions

### Waves

Compare transverse and longitudinal waves  
Reflection of waves  
Sound waves and the ear

### Ecology

Communities  
Interdependence  
Discuss biotic and abiotic factors  
Adaptations including extremophiles

### Structure and Bonding

- Structure and properties of Ionic, covalent and metallic bonds
- Alloys and polymers

### Quantitative Chemistry

- Conservation of mass
- Equations Amounts of substance



### Energy

- Energy changes involving heating, work done by forces, work done when a current flows
- Efficiency

### Radiation

- Describe types of radioactive decay



### Bioenergetics

- Photosynthesis
- Investigating rate of photosynthesis
- Respiration in plants



### Chemical changes

- Extraction of metals
- Reactions of metal compounds to make salts

### Energy Changes

- Endothermic and exothermic
- Bond energy calculations

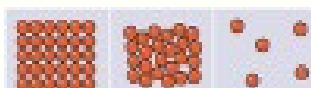


**January Assessment**

### Chemical analysis

- Pure substances, mixtures and formulations
- Chromatography method and analysis
- Gas tests

### Particle model



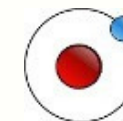
- Apply the particle model to changes of state and temperature
- Determine latent heat
- Determine the specific heat capacity by investigation

### The atom

- Size and mass of the atom and subatomic particles
- How the atomic model has developed
- Isotopes & calculating  $A_r$

### Periodic table

- Metals/ non metals
- Comparing groups



### Cell biology

- Cell structure and functions
- Stem cells
- Mitosis
- Microscopy
- Transport



### Organisation

- Digestive system
- Circulatory system
- Respiration
- Effect of exercise

