

Separate Science (Year 10)

Curriculum Map 2024-2025



Chemistry

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

Mocks

Paper 1
Biology,
Chemistry &
Physics

Exam Preparation

- Required practical's
- Command words
- Application questions

Quantitative Chemistry

- Writing and balancing equations
- Conservation of mass
- Relative formula mass
- Moles in g
- Moles in solution
- Percentage yield
- Atom economy

Chemical changes

- The reactivity series of metals
- Extraction of metals
- Reduction with carbon
- Electrolysis
- Reactions of metal compounds to make salts

Energy Changes

- Endothermic reactions
- Exothermic reactions
- Reaction profiles
- Bond energy calculations

January Assessment

Structure and Bonding

- Formation of bonds: Ionic
- Covalent
- Metallic
- Properties of Ionic, covalent and metallic bonds
- Alloys and polymers

Periodic table

- Development of the periodic table (Mendeleev)
- Metals/ non metals
- Reactions of group 1
- Reactions of group 7
- The nobles gases
- The transition metals

The atom

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