

Separate Science (Chemistry)

Paper 1

Content overview

- Topic 1 – Key concepts in chemistry
- Topic 2 – States of matter and mixtures
- Topic 3 – Chemical changes
- Topic 4 – Extracting metals and equilibria
- Topic 5 – Separate chemistry 1

Paper 2

Content overview

- Topic 1 – Key concepts in chemistry
- Topic 6 – Groups in the periodic table
- Topic 7 – Rates of reaction and energy changes
- Topic 8 – Fuels and Earth science
- Topic 9 – Separate chemistry 2

Practical work

The content includes mandatory core practicals, All students must carry out all 18 of the mandatory core practicals listed below.

Chemistry Core practicals

1. Investigate the composition of inks using simple distillation and paper chromatography
2. Investigate the change in pH on adding powdered calcium hydroxide/calcium oxide to a fixed volume of dilute hydrochloric acid
3. Investigate the preparation of pure, dry hydrated copper sulfate crystals starting from copper oxide including the use of a water bath
4. Investigate the electrolysis of copper sulfate solution with inert electrodes and copper electrodes
5. Investigate the effects of changing the conditions of a reaction on the rates of chemical reactions by:
 - a) measuring the production of a gas (in the reaction between hydrochloric acid and marble chips)
 - b) observing a colour change (in the reaction between sodium thiosulfate and hydrochloric acid)