

Specified practical work - CHEMISTRY



SPECIFIED PRACTICAL WORK

- Specified practical tasks must be carried out
- Some flexibility in method to be used
- Selected to ensure development of skills and techniques
- Teacher/technician guidance sheets have been produced for each of the practicals

AS Component 1

- Gravimetric analysis, for example, by precipitation of a Group 2 metal carbonate or a metal chloride
- Identification of unknown solutions by qualitative analysis
- Preparation of a soluble salt by titration
- Standardisation of an acid
- Back titration, for example, determination of the percentage of calcium carbonate in limestone
- Double titration, for example, analysis of a mixture of sodium hydroxide and sodium carbonate

AS Component 2

- Indirect determination of an enthalpy change of reaction, for example, for magnesium oxide and carbon dioxide to form magnesium carbonate
- Determination of an enthalpy change of combustion
- Investigation of a rate of reaction by a gas collection method
- Study of an iodine 'clock reaction'
- Nucleophilic substitution reaction, for example, 1-bromobutane with aqueous sodium hydroxide
- Preparation of an ester and separation by distillation

A LEVEL PRACTICALS ONLY

- Construction of electrochemical cells and measurement of E_{cell}
- Simple redox titration
- Estimation of copper in copper(II) salts
- Determination of the order of a reaction, for example, the oxidation of iodide ions by hydrogen peroxide in acid solution
- Determination of an equilibrium constant, for example, for the equilibrium established when ethanol reacts with ethanoic acid
- Titration using a pH probe, for example, titration of a weak acid against a weak base

A LEVEL PRACTICALS ONLY

- Identification of aldehydes/ketones by their reaction with 2,4-dinitrophenylhydrazine
- Synthesis of a liquid organic product, including separation using a separating funnel
- Synthesis of a solid organic product, including recrystallisation and determination of melting temperature
- Two-step synthesis, including purification and determination of melting temperature of product
- Planning a sequence of tests to identify organic compounds from a given list
- Paper chromatography separation, including two-way separation

Any Questions?

