Calculating % error / uncertainty

1 2 3 4 5

e.g.

Single Measurement Apparatus

e.g.

Double Measurement Apparatus

e.g.

REQUIRED PRACTICAL 1

Making a Standard Solution

1 2 3 4 5

e.g.

Calculation

-
-

Practical

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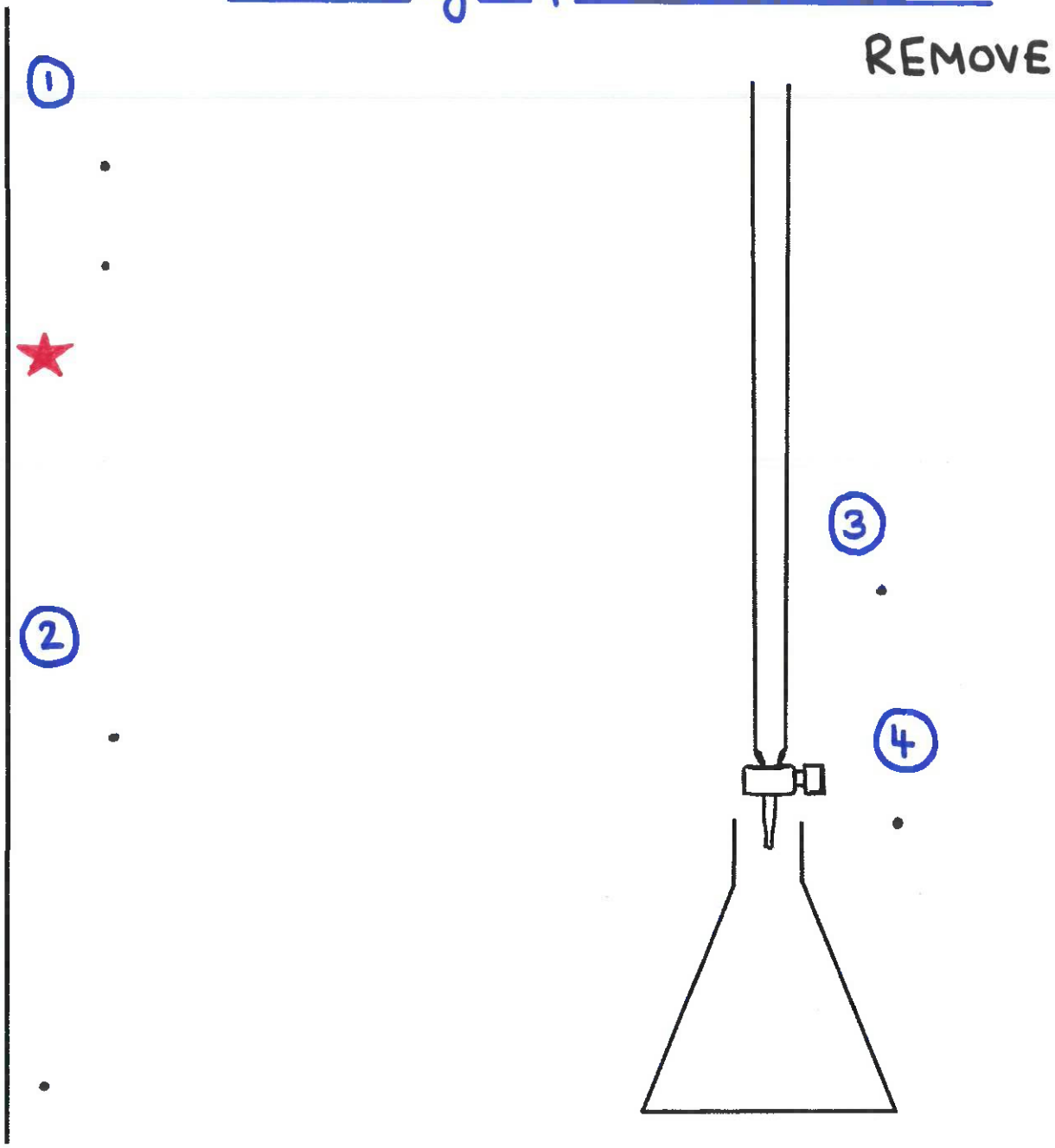
-
-
-
- ★
-
- ★
-

Setting up a Titration

1 2 3 4 5



Performing a Titration

1 2 3 4 5

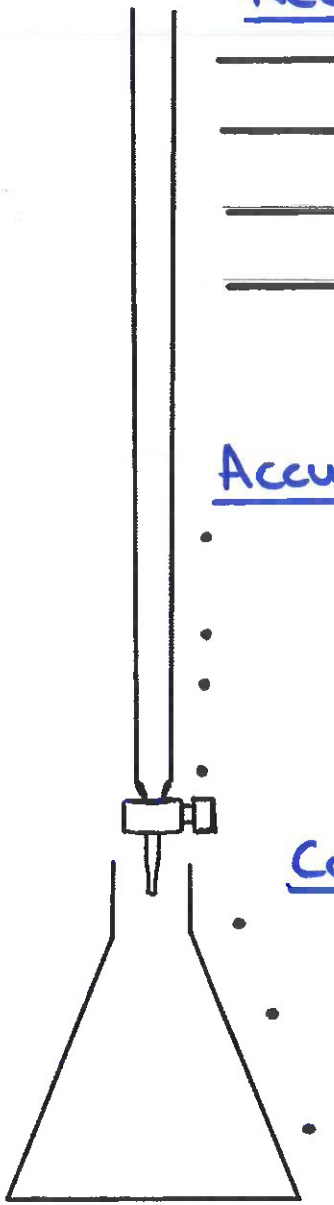
Technique

Recording

Rough Titre

Accuracy

Concordancy



Acid-Base Titration Calculator

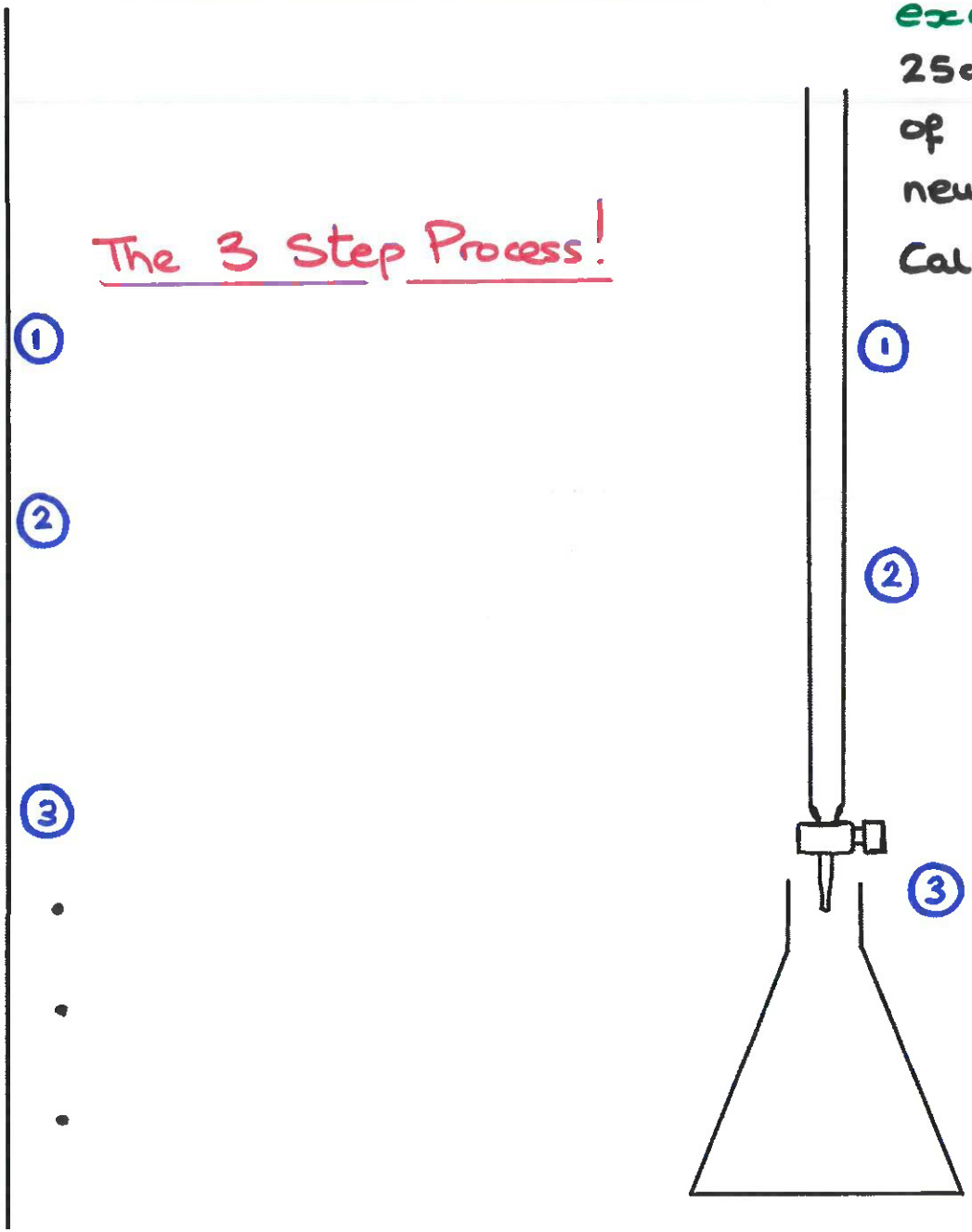
1 2 3 4 5

The 3 Step Process!

example.

$25cm^3$ of $KOH_{(aq)}$ required $12.25cm^3$ of $0.10 mol dm^{-3}$ H_2SO_4 to completely neutralise.

Calculate the concentration of $KOH_{(aq)}$



Back Titration Method

Involves 2 reactions

①

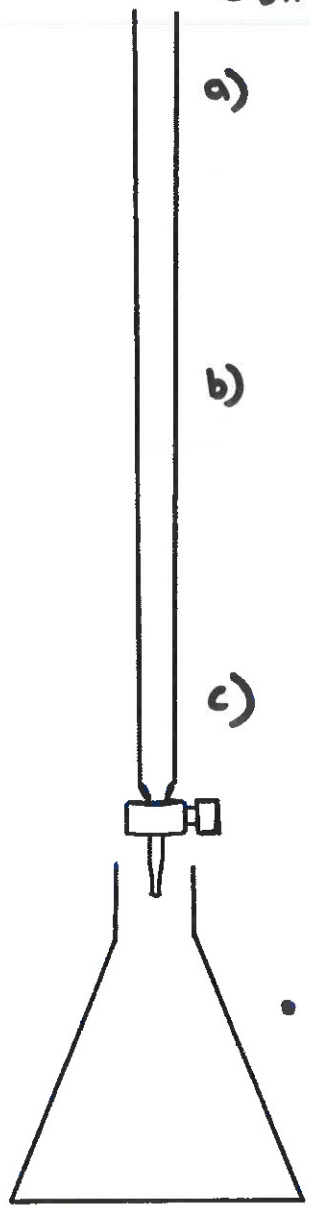
②

Using this Method, you can deduce:

a)

b)

c)



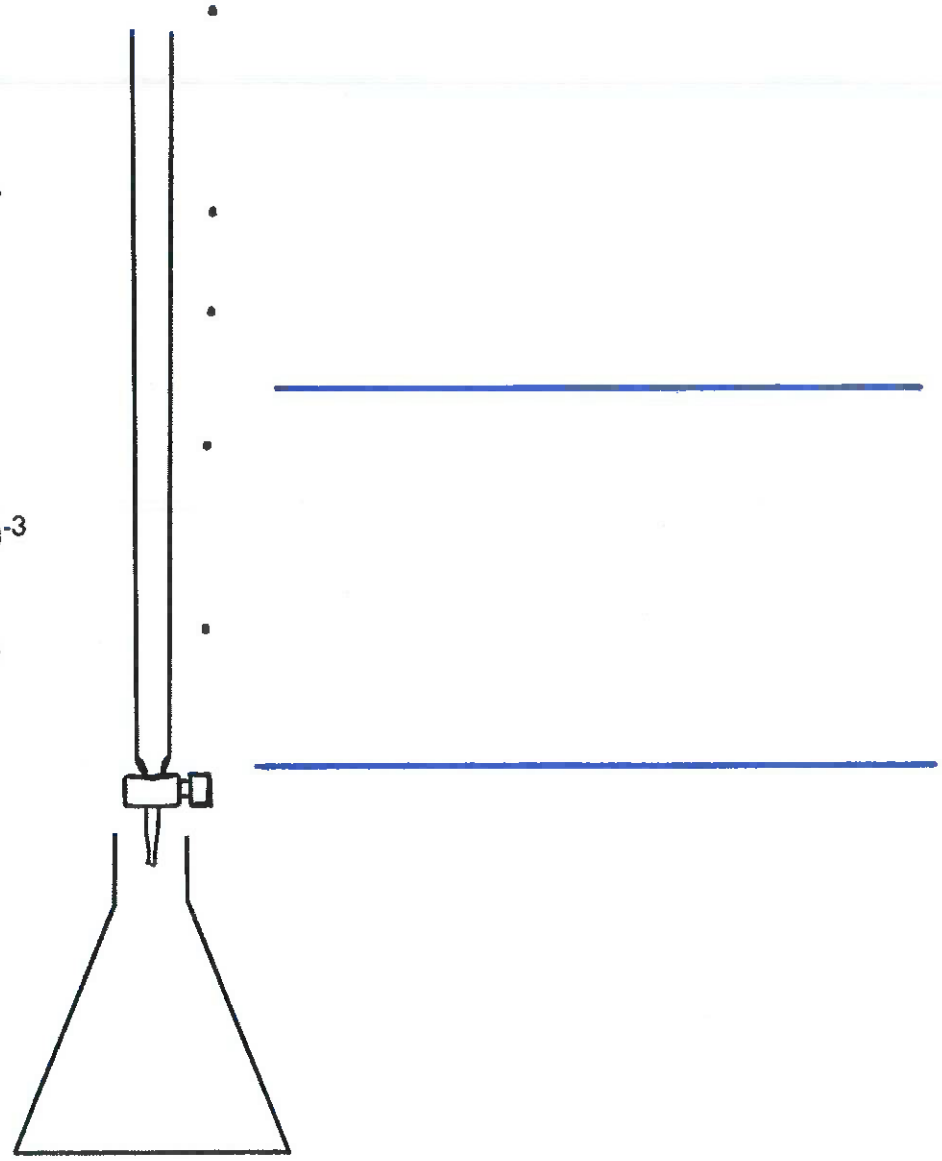
Back Titration Calculations

A powdered sample contains a mixture of sodium carbonate and sodium chloride. 2.00g of this mixture was reacted with 100 cm^3 of 1.00 $mol.dm^{-3}$ $HCl_{(aq)}$.

The resulting solution was made up to 250 cm^3 using a volumetric flask.

25 cm^3 portions of the solution then required a mean titre of 18.60 cm^3 of 0.500 $mol.dm^{-3}$ $NaOH_{(aq)}$ to be completely neutralised.

Calculate what percentage by mass of the original solid sample was sodium carbonate.



(1)

(2)

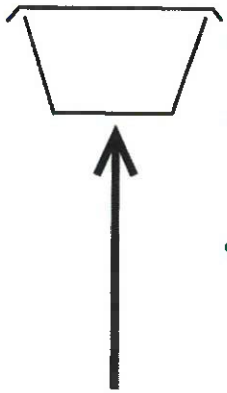
Gravimetric Analysis (Finding x in H_2O)

1 2 3 4 5

e.g.

Example

A sample of hydrated $MgSO_4.xH_2O_{(s)}$ was heated to a constant mass. The results are as follows:



- Mass of crucible + lid = 96.60g
- Mass of crucible + lid + hydrated salt = 101.55g
- Mass of crucible + lid + dehydrated salt = 99.20g

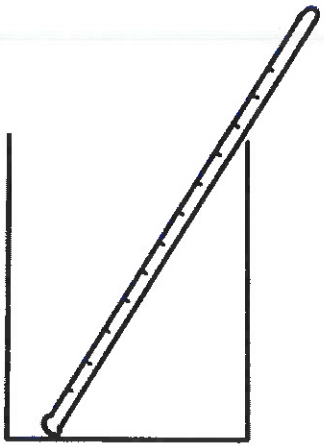
Method

Solution

REQUIRED PRACTICAL 2A

Measuring Enthalpy of Combustion

1 2 3 4 5



Method

-
-
-
-

Analysis

-
-
-

Sources of Error

1.
2.
3.
4.

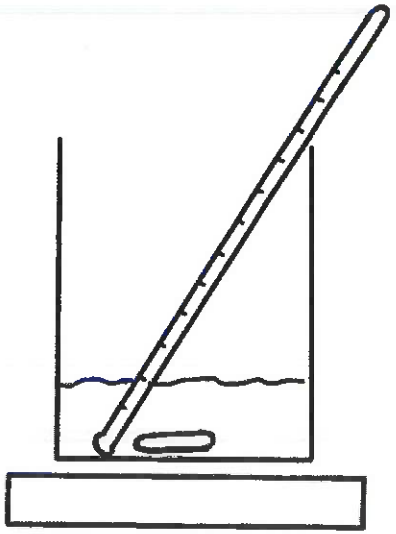
REQUIRED PRACTICAL 2B

Measuring Enthalpy of Neutralisation

1 2 3 4 5

e.g.

Method



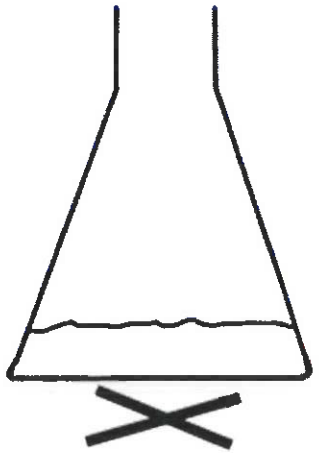
Analysis

REQUIRED PRACTICAL 3

Measuring Rate - Changing Temperature

1 2 3 4 5

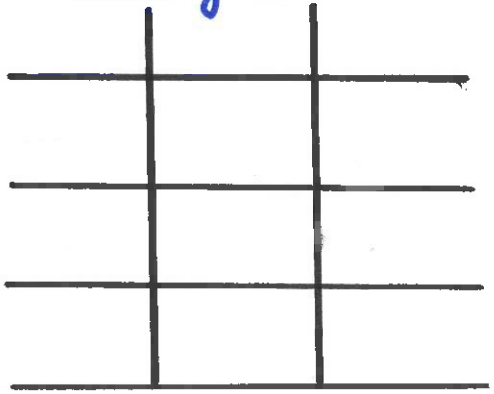
_____ ( )



\+ → + + +

Method

Analysis



Testing for Inorganic Ions

1 2 3 4 5

Reflux

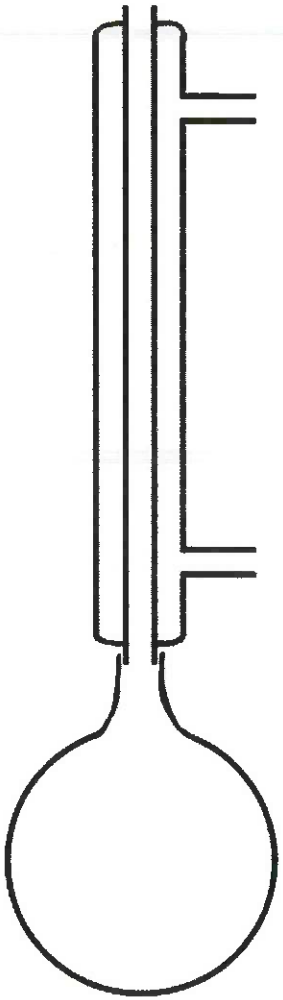
1 2 3 4 5

How it works

-
-
-

Benefit

-
-



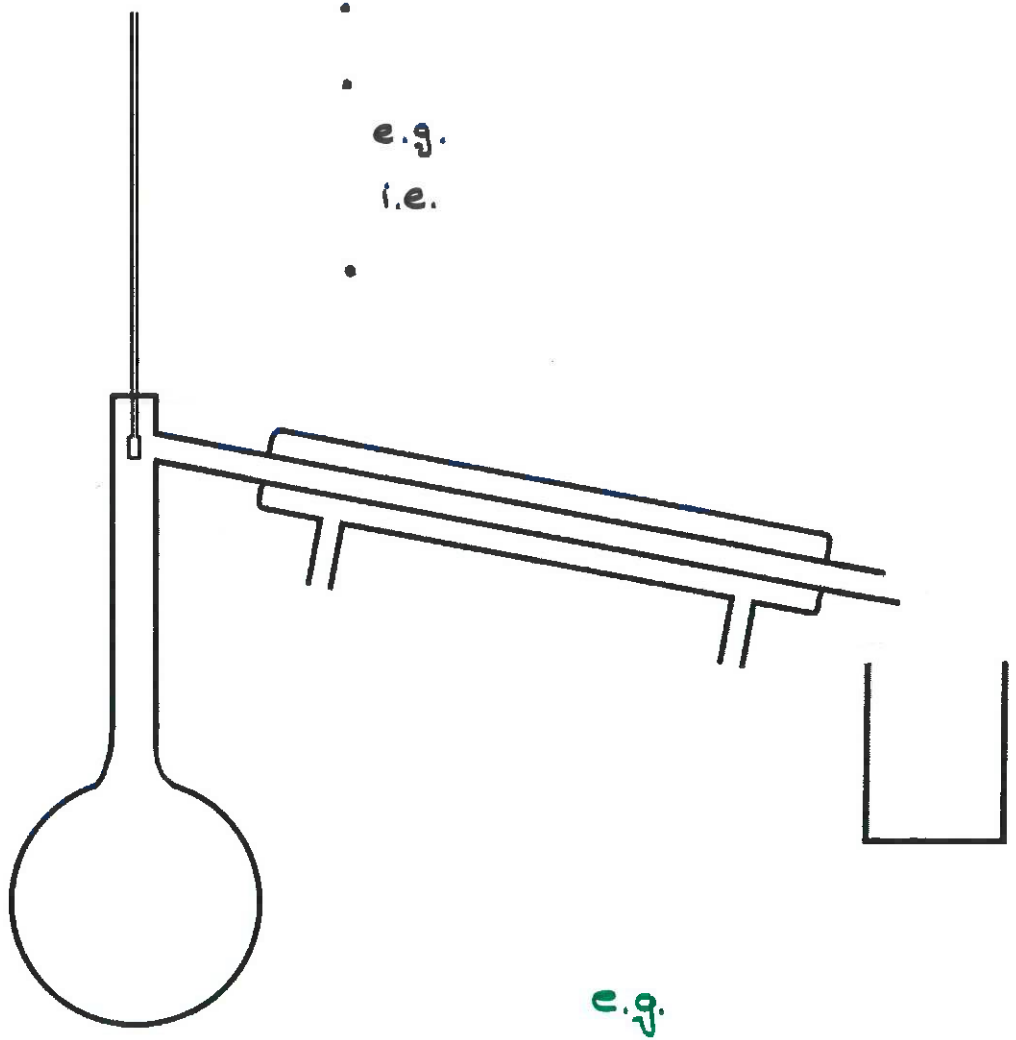
REQUIRED PRACTICAL 5

Distillation

1 2 3 4 5

How it works

-
-
- e.g.
- i.e.
-



e.g.

REQUIRED PRACTICAL 6

Testing for Organic Compounds

1 2 3 4 5

FUNCTIONAL GROUP	TEST / RESULT (OBSERVATION)