## **AL Chemistry**

## Redox Equilibrium

Experiment1 Blue bottle

Name: ( )

Class: F.6

How to make a blue bottle?

- Glucose
- » KOH
- Methylene blue (redox indicator)

Methylene blue (oxidized form)

Blue colour MB Leucomethylene blue (reduced form)

Colourless

MBH

## When shaken:

$$^{1}/_{2}O_{2} + MBH$$
Reduced form
(colourless)

 $^{1}/_{2}O_{2} + MBH$ 
Oxidized form
(blue)

## **Upon standing:**

$$MB + C_6H_{12}O_6 + OH^- \rightarrow MBH + C_6H_{12}O_7$$

Oxidized form Glucose (blue)

Reduced form Gluconic acid (colourless)