## Chapter 2. Experiemental Techniques

## Measurement:

Time: Is measured with clocks such as a chronometer.

Temperature: Is measured with a thermometer.

Mass: Is measured with a balance or scale.

Volume: Is measured with burettes, to measure differences in volume, pipettes and measuring cylinders.

## The purity of solid and liquids:

Is very important that manufactured foods and drugs don't contain any contaminants. The simplest way of checking the purity of solids and liquids is by using heat until they boil or melt. An impure solid will have a lower boiling point than a pure solid. An impure liquid will have a higher boiling sale.co.uk point than a pure solvent.

## Methods of separation and purification:

eting solutions or liquids that are **Paper chromatography:** Is a way of **P** mixed together. E.g. A flac () k is a mixture of macy different colour inks we can use paper comatography performance them.

A spot of ink is placed in the X mark and the filter paper is suspended in a solvent (can be water, nail polish...), as the solvent rises, the different dyes travel different distances.

Depending on the distance travelled of each substance, and the solvent used we know which substance is which. This is called the retention factor, to calculate it we use this formula.

Rf= distance travelled by a substance / distance travelled by solvent.

As the solvent always travels faster and further than any substance, the retention factor will always be less than 1.

