Science: Chemical Analysis

1. Key Words

Pure substance	A substance that contains a single element or compound, not mixed with any other substance
Formulation	A mixture that has been designed for a specific purpose
Melting point	The temperature at which a substance changes from a solid to a liquid
Boiling point	The temperature at which a substance changes from a liquid to a gas

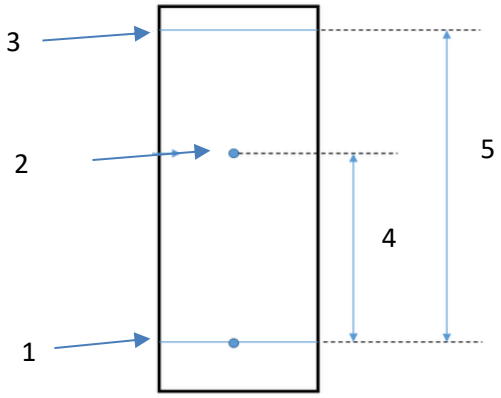
2. Chromatography

This is a separation technique used to separate mixtures in dyes inks, paint and DNA

The R_f value is a measure of how far up the chromatography paper the solute moves compared to the solvent.

R_f equations: $\frac{\text{Distance moved by the solute}}{\text{Distance moved by the solvent}}$

1	Baseline	Pencil line that the solute is placed on
2	Solute	The final position of the solute
3	Solvent front	The final position of the solvent
4	Distance moved by the solute	
5	Distance moved by the solvent	



3. Testing for Gases

Gas	Test	Positive Result
Hydrogen	Place a lit splint into the gas	Squeaky pop noise
Oxygen	Place a glowing splint into the gas	Splint will relight
Carbon dioxide	Bubble the gas through limewater	Limewater will change from colourless to cloudy
Chlorine	Place damp blue litmus paper into the gas	Litmus paper will change colour to pink and then bleach to white