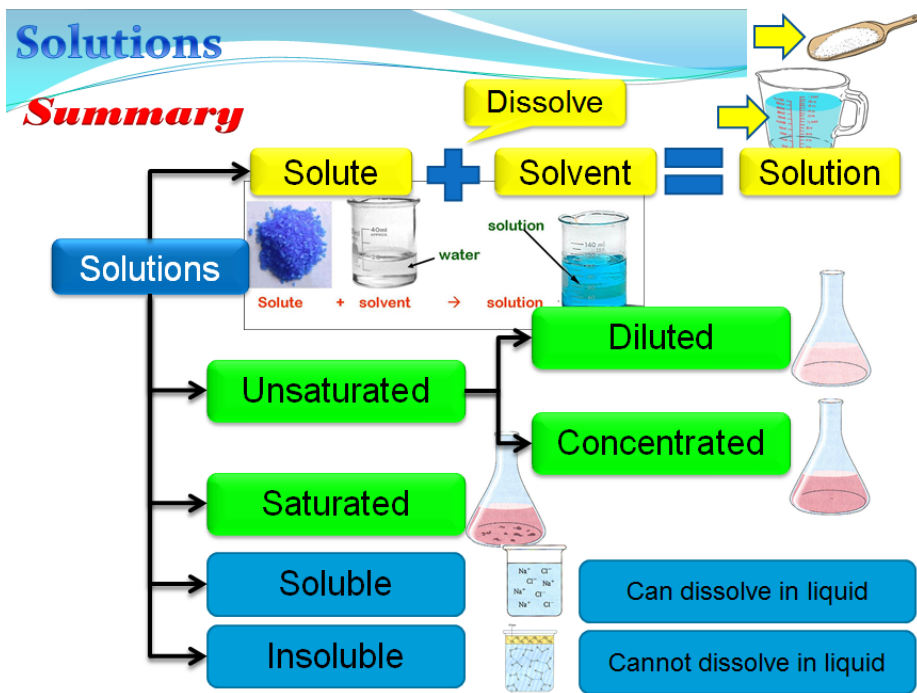


## Year 7 - Mixes and Fixes - Chromatography and Solutions

In this unit, children will learn about mixtures, including dissolving, diffusion in terms of the particle model, the concept of a pure substance, and learn to carry out simple techniques for separating mixtures: filtration, evaporation and chromatography.



## Key Skills

Choose appropriate equipment to accurately and precisely take measurements, and begin to explain and understand when repeat readings are appropriate. Confidently make predictions using scientific knowledge and understanding. More independently, select, plan and carry out the most appropriate types of scientific enquiries to test predictions, including identifying independent, dependent and control variables.

Select and use appropriate techniques, apparatus, and materials during fieldwork and laboratory work, paying attention to health and safety. More independently draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings.

## Key Vocabulary

Solute	Saturation
Solvent	Mixtures
Solution	Chromatography
Dissolve	Separation
Evaporation	Conservation of mass

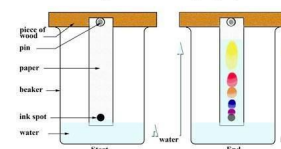
**How do we mix and separate solutions?**

## Key Knowledge

- Chromatography is used to separate. It can be used to separate colours in ink and is sometimes used to solve crimes.
- When a chemical reaction occurs, there is a chemical change. New compounds or elements are formed. Physical changes do not make any new substances.
- Evaporation is used to separate soluble solids from a solvent. The liquid evaporates and the solid remains.



Simple chromatography



## Sequence of learning

- Elements, compounds, mixtures and solutions
- Conservation of mass
- Dissolving
- Saturation points in a solution
- Chromatography