7E Mixtures and Separation	Knowledge, Skills and Understanding
Higher	Classify colloids as foams, emulsions, gels and aerosols, based on what they are made up of Justify the decision to separate a mixture in a certain way Plan a fair test to discover how different factors affect the solubility of a substance Justify the decision to separate a solution in a certain way Evaluate the information provided by chromatograms Explain how fractional distillation is used in making perfumes
Intermediate	Group materials using their states of matter as justification Classify mixtures as suspensions, colloids and solutions, based on what they look like and whether they separate on standing Describe how factors affect how much of a substance dissolves Describe how we know that different solutes have different solubilities Use a knowledge of dissolving to decide how mixtures should be separated Explain how chromatography works, and interpret a chromatogram Explain how distillation works Identify factors that could affect distillation.
Foundation	Recall the three states of matter and identify solids, liquids, gases State the meaning of: mixture State the meaning of: sieving, filtering, insoluble, suspension Describe what the three states of matter are like Identify mixtures Describe how insoluble solids can be separated from a liquid. Describe what is seen when a solid dissolves, and correctly use the terms: soluble, solute, solvent, solution Describe how some solids can be used to form a solution, and identify the solvent and solute in a solution Describe what happens when a liquid will not dissolve any more of a solid and use correctly the terms: solubility, saturated solution State what happens to mass in a physical change. Describe what happens during evaporating State what happens at a material's boiling point. Give examples of where chromatography is used, and describe how chromatography is used to separate mixtures Give examples of where distillation is used, and describe how distillation can separate mixtures