CC1: **States of Matter** (Paper 1)
CC2: **Methods of Separating and Purifying Substances** (Paper 1)

Lesson	Objectives Tracker Sheet	Date covered	I know this well	I need to do more work on this
CC1a States of Matter	C2.1 Describe the arrangement, movement and the relative energy of particles in each of the three states of matter: solid, liquid and gas.			
	C2.2 Recall the names used for the interconversions between the three states of matter, recognising that these are physical changes.			
	C2.3 Explain the changes in arrangement, movement and energy of particles during these interconversions.			
	C2.4 Predict the physical state of a substance under specified conditions, given suitable data.			
CC2a Mixtures	C3.1 Explain the differences between pure substances and a mixture.			
	C3.2 Interpret melting point data to distinguish between pure substances, which have a sharp melting point, and mixtures, which melt over a range of temperatures.			
CC2b Filtration and crystallisation	C3.3 Explain the experimental techniques for separation of mixtures by: (c) filtration; and (d) crystallisation.			
	C3.4 Describe an appropriate experimental technique to separate a mixture, knowing the properties of the components of the mixture.			
	C0.6 Evaluate the risks in a practical procedure and suggest suitable precautions for a range of practicals, including those mentioned in the specification.			
CC2c Paper chromatography	C3.3 Explain the experimental techniques for separation of mixtures by: paper chromatography.			
	C3.4 Describe an appropriate experimental technique to separate a mixture, knowing the properties of the components of the mixture.			
	C3.4 Describe an appropriate experimental technique to separate a mixture, knowing the properties of the components of the mixture.			

	C3.6 Interpret a paper chromatogram: (a) to distinguish between pure and impure substances (b) to identify substances by comparison with known substances (c) to identify substances by calculation and the use of Rf values.			
	C3.7 Investigate the composition of inks using simple distillation and paper chromatography.			
CC2d Distillation	C3.3 Explain the experimental techniques for separation of mixtures by: (a) simple distillation (b) fractional distillation.			
	C3.4 Describe an appropriate experimental technique to separate a mixture, knowing the properties of the components of the mixture.			
	C0.6 Evaluate the risks in a practical procedure and suggest suitable precautions for a range of practicals including those mentioned in the specification.			
CC2d Investigating inks – Core Practical	C3.7 Investigate the composition of inks using simple distillation.			
CC2e Drinking water	C3.4 Describe an appropriate experimental technique to separate a mixture, knowing the properties of the components of the mixture.			
	C3.8a Describe how waste water and ground water can be made potable, including the need for sedimentation, filtration and chlorination.			
	C3.8b Describe how seawater can be made potable by using distillation.			
	C3.8c Describe how water used in analysis must not contain any dissolved salts.			
	C0.6 Evaluate the risks in a practical procedure and suggest suitable precautions for a range of practicals including those mentioned in the specification.			