

Chemistry > Big idea CPS: Particles and structure > Topic CPS5: Evaporation

**Progression toolkit: Explaining evaporation**

<b>Learning focus</b>	Evaporation takes place at any temperature between melting and boiling point.				
<b>As students' conceptual understanding progresses they can:</b>					
<b>Diagnostic questions</b>	Recognise that evaporation occurs in different liquids, not just water. <b>P</b>	Predict that evaporation will occur in liquids with a temperature that is less than or greater than that of the surroundings.	Describe where in a liquid evaporation takes place.	Distinguish boiling from evaporation.	Use the idea that particles have a range of energies to explain how evaporation occurs below boiling point. <b>B</b>
<b>Response activities</b>	Different liquids	Evaporating temperatures	Location of evaporation	Boiling or evaporation?	Evaporating particles
<b>Response activities</b>		Garden problem	Surface area	Observations	Evaporation rate

Key:

**P** Prior understanding from earlier stages of learning

**B** Bridge to later stages of learning

<p style="text-align: center;"><b>Different liquids</b></p> <p style="text-align: center;">Simple multiple choice</p>	<p style="text-align: center;"><b>Evaporating temperatures</b></p> <p style="text-align: center;">Simple multiple choice</p>	<p style="text-align: center;"><b>Location of evaporation</b></p> <p style="text-align: center;">Simple multiple choice</p>	<p style="text-align: center;"><b>Boiling or evaporation?</b></p> <p style="text-align: center;">Confidence grid</p>	<p style="text-align: center;"><b>Evaporating particles</b></p> <p style="text-align: center;">Simple multiple choice</p>
<p style="text-align: center;"><b>Garden problem</b></p> <p style="text-align: center;">Talking heads, discussion</p>	<p style="text-align: center;"><b>Surface area</b></p> <p style="text-align: center;">Predict, explain, observe, explain</p>	<p style="text-align: center;"><b>Observations</b></p> <p style="text-align: center;">Application and practice</p>	<p style="text-align: center;"><b>Evaporation rate</b></p> <p style="text-align: center;">Clarifying, focussed cloze</p>	