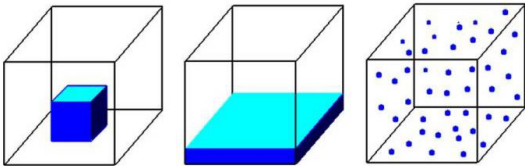
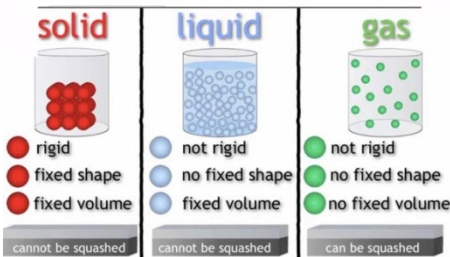
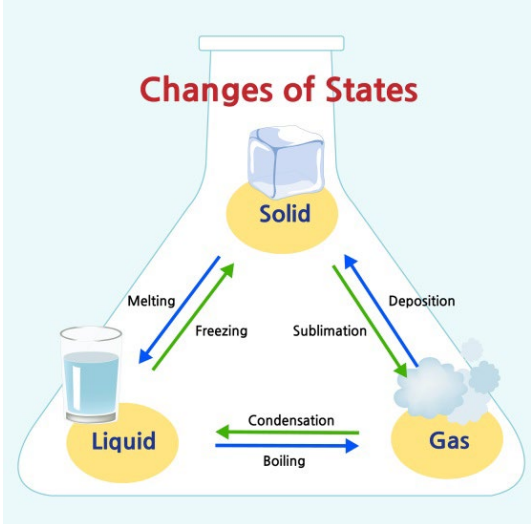


LKS2 States of matter (Year 4)

Prior Learning: Everything is made up of matter, forces can affect matter

P.O.S – States of matter

Concept – Physics forces, chemistry – chemical reactions

Facts	Vocabulary
<p>1. Matter</p> <p>a) is made of tiny little particles.</p> <p>b) materials exist as – solid, liquid, gas</p>	<p>1. Matter - Middle English: via Old French from Latin materia 'timber, substance', also 'subject of discourse', from mater 'mother'.</p>
<p>2. Solids:</p> <p>a) firm and stable in shape</p> <p>b) not fluid</p> <p>c) particles very close together / vibrate around a fixed position</p>	 <p style="text-align: center;">Solid Liquid Gas</p> <p style="text-align: center;">Holds Shape Shape of Container Shape of Container</p> <p style="text-align: center;">Fixed Volume Free Surface Volume of Container</p> <p style="text-align: center;">Fixed Volume Fixed Volume</p>
<p>3. Liquid:</p> <p>a) substance that flows freely</p> <p>b) not of constant volume</p> <p>c) having a consistency like that of water or oil.</p> <p>d) particles close but randomly arranged / move around</p>	
<p>4. Gases:</p> <p>a) substance will expand freely to fill the whole of a container</p> <p>b) having no fixed shape</p> <p>c) no fixed volume</p> <p>d) particles far apart and randomly arranged / move around</p>	<p>Particles:</p>  <p style="text-align: center;">solid liquid gas</p> <p style="text-align: center;">● rigid ● not rigid ● not rigid</p> <p style="text-align: center;">● fixed shape ● no fixed shape ● no fixed shape</p> <p style="text-align: center;">● fixed volume ● fixed volume ● no fixed volume</p> <p style="text-align: center;">cannot be squashed cannot be squashed can be squashed</p>
<p>5. Changes of state:</p> <p>a) Melting is the process of changing a solid into a liquid</p> <p>b) Evaporation is the process of changing a liquid into a gas</p> <p>c) Condensation is the process of changing a gas into a liquid</p> <p>d) Freezing is the process of changing a liquid into a solid</p>	 <p style="text-align: center;">Changes of States</p> <p style="text-align: center;">Solid Liquid Gas</p> <p style="text-align: center;">Melting Freezing Sublimation Deposition</p> <p style="text-align: center;">Condensation Boiling</p>
<p>6. Water cycle:</p> <p>a) Evaporation - In the water cycle, liquid water (in the ocean, lakes, or rivers) evaporates and becomes water vapour</p> <p>b) Condensation - In the water cycle, water vapour in the atmosphere condenses and becomes liquid.</p>	
<p>7. Water:</p> <p>a) boils at 100°C.</p> <p>b) freezes at 0°C.</p>	
<p>Websites:</p> <p>https://www.bbc.com/bitesize/topics/zkkg87h</p> <p>https://www.bbc.com/bitesize/clips/z8qtfg8</p> <p>https://www.youtube.com/watch?v=TWb4KIM2vts</p>	