

Year 7: ASK Yourself!

Subject: Science

Unit 7.4: Explaining physical changes

	Launching 1-2	Developing 3-4	Progressing 5-6	Mastering 7-9
S kills				
	I need to be able to explain the properties of solids, liquids and gases based on the arrangement and movement of their particles.	I can partially draw before and after diagrams of particles to explain observations about changes of state, gas pressure and diffusion.	I can confidently relate the features of the particle model to the properties of materials in different states. I can confidently make predictions about what will happen during unfamiliar physical processes, in terms of particles and their energy.	I can expertly explain unfamiliar observations about gas pressure in terms of particles.
K nowledge				
	I need to know that a substance is a solid below its melting point, a liquid above it, and a gas above its boiling point.	I partially know that observations where substances change temperature or state can be described in terms of particles gaining or losing energy.	I confidently know that properties of solids, liquids and gases can be described in terms of particles in motion but with differences in the arrangement and movement of these same particles: closely spaced and vibrating (solid), in random motion but in contact (liquid), or in random motion and widely spaced (gas).	I understand how to classify substances which behave unusually as solids, liquids or gases. I understand how to evaluate observations that provide evidence for the existence of particles.