



<p>Unit: Particle Model of Matter</p> <p>LESSONS</p>	<ol style="list-style-type: none"> Density (including required practical) Changes of state 	<ol style="list-style-type: none"> Internal energy Specific heat capacity 	<ol style="list-style-type: none"> Particle motion in gases (including single only content) Increasing pressure in gases
<p>Knowledge & Skills Development</p>	<ul style="list-style-type: none"> Recognise/draw simple diagrams to model the difference between solids, liquids and gases Explain the differences in density between the different states of matter in terms of the arrangement of atoms or molecules Recall, use and rearrange the equation for density Describe how and when substances change state Define internal energy, specific heat capacity and latent heat of vaporisation and fusion Use and rearrange the equations for specific heat capacity and latent heat Interpret heating and cooling graphs that include changes of state. 		<ul style="list-style-type: none"> Explain how the motion of the molecules in a gas is related to both its temperature and its pressure Explain qualitatively the relation between the temperature of a gas and its pressure at constant volume Calculate the change in the pressure of a gas or the volume of a gas (a fixed mass held at constant temperature) when either the pressure or volume is increased or decreased Explain how, in a given situation eg a bicycle pump, doing work on an enclosed gas leads to an increase in the temperature of the gas
<p>Assessment / Feedback Opportunities</p>	<p>Formative Assessment</p> <p>Teacher questioning</p> <p>Quizzes</p> <p>Exam style questions</p>	<p>Summative assessment</p> <p>End of topic assessment</p> <p>Exam questions in future end of topic assessments to assess recall</p>	
<p>Key Vocabulary</p>	<p>Independent Variable, Dependent Variable, Control Variables, Method, Conclusion, Precaution, Evaluation, Reliable, Precision, Valid, Anomaly, Describe, Explain, Compare, Analyse, Calculate, Suggest</p> <p>Density, Arrangement, Molecules, Atoms, Internal, Specific Heat Capacity, Latent, Vaporisation, Fusion, Temperature, Pressure, Volume</p>		
<p>Literacy/Reading Opportunities</p>	<p>Subject specific vocabulary introduced before reading of related texts</p> <p>Word etymology from Latin and Greek roots</p> <p>Reading of simple and complex sentences, paragraphs, articles</p> <p>Scientific writing including structuring methods, comparisons and evaluations</p>		
<p>Cross Curricular Themes</p>	<p>Numeracy/Maths – averages (means), reading scales, graph plotting, lines of best fit, using and rearranging equations, using scientific calculators</p>		
<p>Personal</p>	<p>Heating engineers, Divers in various careers (Recreational, Navy, Rescue, etc)</p>		

Development (Including British Values, RSE, Citizenship)	
Career Opportunities	