



YEAR 9 LEARNING MAP



YEAR GROUP: 9 learning map

SUBJECT: Physics

When?	Knowledge	Understanding	Assessment
<p>P1 Conservation and dissipation of energy</p>	<p>Be able to:</p> <ul style="list-style-type: none"> Describe the ways in which energy can be stored and transferred Define the conservation of energy and describe why it is important Define work done and be able to carry out calculations involving work Name and describe different energy stores Describe and calculate efficiency 	<p>Students will carry out a range of practical experiments during these topics.</p> <p>P1 Conservation and dissipation of energy key words:</p> <p>conservation of energy dissipated energy / dissipation of energy efficiency elastic potential energy Hooke's Law input energy power spring constant useful energy wasted energy work</p>	<p>P1 Conservation and dissipation of energy assessment (30 marks)</p>
<p>P3 Energy resources</p>	<p>Be able to:</p> <ul style="list-style-type: none"> Describe the ways in which energy demands are met Describe the different renewable energy resources 	<p>Students will carry out a range of practical experiments during these topics.</p> <p>P3 Energy resources key words:</p> <p>biofuel carbon-neutral geothermal energy national grid nuclear fuel nucleus</p>	<p>P3 Energy resources assessment (30 marks)</p>



		<p>reactor core renewable energy</p>	
<p>P2 Energy transfer by heating</p>	<p>Be able to:</p> <ul style="list-style-type: none"> Describe which materials make the best conductors and insulators Carry out calculations using specific heat capacity Describe the ways that homes are heated and insulated 	<p>Students will carry out a range of practical experiments during these topics.</p> <p>P2 Energy transfer by heating key words: black body radiation infrared radiation specific heat capacity thermal conductivity</p>	<p>P2 Energy transfer by heating assessment (30 marks)</p>
<p>P6 Molecules and matter</p>	<p>Be able to:</p> <ul style="list-style-type: none"> Carry out calculations using the density equation Describe the different properties and molecular arrangements of solids, liquids and gases Describe the different changes of state Describe and calculate specific latent heat Describe gas pressure and temperature 	<p>Students will carry out a range of practical experiments during these topics.</p> <p>P6 Molecules and matter key words: boiling point Boyle's Law density freezing point internal energy latent heat melting point physical change pressure specific latent heat of fusion L_f specific latent heat of vaporisation L_v</p>	<p>P6 Molecules and matter assessment (30 marks)</p>



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