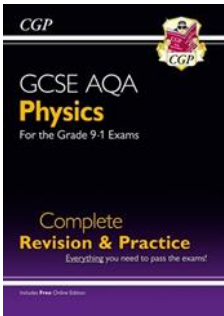


Transition Map

Subject	GCSE PHYSICS										
Contact	Nick Mitchell										
Email	nmitchell@utcswindon.co.uk										
Exam Board	AQA										
Course Outline	<p>2 Year course covering:</p> <ol style="list-style-type: none"> 1. Energy 2. Electricity 3. Particle model of matter 4. Atomic structure 5. Forces 6. Waves 7. Magnetism and electromagnetism 8. Space physics 										
Assessment	<table border="1"> <tr> <th>Paper 1:</th> </tr> <tr> <td> What's assessed Topics 1-4: Energy; Electricity; Particle model of matter; and Atomic structure. </td> </tr> <tr> <td> How it's assessed <ul style="list-style-type: none"> • Written exam: 1 hour 45 minutes • Foundation and Higher Tier • 100 marks • 50% of GCSE </td> </tr> <tr> <td> Questions <ul style="list-style-type: none"> • Multiple choice, structured, closed short answer and open response. </td> </tr> </table>	Paper 1:	What's assessed Topics 1-4: Energy; Electricity; Particle model of matter; and Atomic structure.	How it's assessed <ul style="list-style-type: none"> • Written exam: 1 hour 45 minutes • Foundation and Higher Tier • 100 marks • 50% of GCSE 	Questions <ul style="list-style-type: none"> • Multiple choice, structured, closed short answer and open response. 	<table border="1"> <tr> <th>Paper 2:</th> </tr> <tr> <td> What's assessed Topics 5-8: Forces; Waves; Magnetism and electromagnetism; and Space physics. </td> </tr> <tr> <td> Questions in paper 2 may draw on an understanding of energy changes and transfers due to heating, mechanical and electrical work and the concept of energy conservation from Energy (page 17) and Electricity (page 23). </td> </tr> <tr> <td> How it's assessed <ul style="list-style-type: none"> • Written exam: 1 hour 45 minutes • Foundation and Higher Tier • 100 marks • 50% of GCSE </td> </tr> <tr> <td> Questions <ul style="list-style-type: none"> • Multiple choice, structured, closed short answer and open response. </td> </tr> </table>	Paper 2:	What's assessed Topics 5-8: Forces; Waves; Magnetism and electromagnetism; and Space physics.	Questions in paper 2 may draw on an understanding of energy changes and transfers due to heating, mechanical and electrical work and the concept of energy conservation from Energy (page 17) and Electricity (page 23).	How it's assessed <ul style="list-style-type: none"> • Written exam: 1 hour 45 minutes • Foundation and Higher Tier • 100 marks • 50% of GCSE 	Questions <ul style="list-style-type: none"> • Multiple choice, structured, closed short answer and open response.
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Pre-Reading List	 <p>Grade 9-1 GCSE PHYSICS AQA Complete Revision & Practice with Online Edition Product code: PAS47 ISBN: 9781782945857</p>										

Useful Links	<ul style="list-style-type: none"> • BBC Bitesize: https://www.bbc.co.uk/bitesize/examspecs/zsc9rdm • Free Science Lessons: Energy (19 Videos): https://www.youtube.com/playlist?list=PL9IouNCPbCxWNjJvmgwZ4vKy4VfcAhsCj
Key Literacy	<p>For Unit P1 you should already know.</p> <ul style="list-style-type: none"> • Energy is a quantity that can be measured and calculated • The total energy before and after a change has the same value • Energy transfers can be compared in terms of usefulness and efficiency • Energy Transfers by heating can be reduced by using insulating materials • Energy is transferred by Conduction, Convection and Radiation. • The energy required to heat an object depends upon its mass and the material it is made of. • A renewable resource will not run out because it is a natural process • Burning fossil fuels releases Carbon Dioxide gas (a greenhouse gas), which is released into the atmosphere.
Subject Specific Terminology	<ul style="list-style-type: none"> • Energy Stores: Chemical, Kinetic, Elastic Potential, Gravitational Potential, Nuclear, Thermal, Electrostatic, Magnetic. • Energy Transfers: Mechanical, Heating, Electrically, Light & Sound • Conservation of Energy • Closed System • Energy Transfer, Work, Force, Distance. • UNITS: Metre (m), Newton (N), Joule (J) • Friction • Spring Constant, Extension • Dissipated, Efficiency, Power
Activities to complete before Joining	<p>Research these 4 key questions:</p> <ol style="list-style-type: none"> 1. How is energy stored and transferred? 2. How can we calculate the energy needed to heat an object? 3. What does "Thermal Conductivity" mean? 4. Research some different forms of renewable energy and explain how we could compare them. <p>Make sure you can convert cm to m and m to km.</p>