

## DAGENHAM PARK SUBJECT CURRICULUM

<b>Subject</b>	Combined Science (2 GCSEs)
<b>Year Group</b>	11
<b>Overview</b>	<p>GCSE Combined Science offers students the chance to gain a good understanding of:</p> <ul style="list-style-type: none"> <li>• The structure and replication of cells.</li> <li>• The response of the body to infectious disease.</li> <li>• How the body maintains conditions inside it</li> <li>• Genetic engineering.</li> <li>• Inheritance in animals and plants.</li> <li>• The nature of substances and how they react together.</li> <li>• The ways that atoms bond.</li> <li>• The rate of chemical change.</li> <li>• How chemistry is used in business and industry.</li> <li>• How our use of raw materials in fuels and manufacturing can affect the global and local environment.</li> <li>• The use and transfer of energy.</li> <li>• Electricity and its uses.</li> <li>• Forces and their effects.</li> <li>• The particle model of matter.</li> <li>• Waves and electromagnetic radiation.</li> </ul> <p>The specification is designed to give students the tools and concepts they need to be able to construct a scientific approach to solving problems. Students will learn to ask and answer questions about the fundamental laws that govern natural phenomena. This is done by integrating the 'How Science Works' approach throughout the specification. The students need to carry out required practicals during class time to show that they can manipulate equipment, process results, formulate conclusions and evaluate their work.</p>
<b>Autumn Half term 1</b>	<p><b>Biology Unit 6: Inheritance, variation and evolution</b></p> <p>4.6.1 Reproduction 4.6.2 Variation and evolution 4.6.3 The development of understanding of genetics and evolution 4.6.4 Classification of living organisms</p> <p><b>Chemistry Unit 7: Organic Chemistry</b></p> <p>5.7.1 Carbon compounds as fuels and feedstock</p>

<p style="text-align: center;"><b>Autumn Half term 2</b></p>	<p><b>Biology Unit 7: Ecology</b>  4.7.1 Adaptations, interdependence and competition  4.7.2 Organisation of an ecosystem  4.7.3 Biodiversity and the effect of human interaction on ecosystems</p> <p><b>Chemistry Unit 8: Chemical analysis</b>  5.8.1 Purity, formulations and chromatography  5.8.2 Identification of common gases</p>
<p style="text-align: center;"><b>Spring Half term 1</b></p>	<p><b>Physics Unit 5: Forces</b>  6.5.1 Forces and their interactions  6.5.2 Work done and energy transfer  6.5.3 Forces and elasticity  6.5.4 Forces and motion  6.5.5 Momentum</p> <p><b>Chemistry Unit 9: Chemistry of the atmosphere</b>  5.9.1 The composition and evolution of the Earth's atmosphere  5.9.2 Carbon dioxide and methane as greenhouse gases  5.9.3 Common atmospheric pollutants and their sources</p> <p><b>Physics Unit 6: Waves</b>  6.6.1 Waves in air, fluids and solids  6.6.2 Electromagnetic waves</p>
<p style="text-align: center;"><b>Spring Half term 2</b></p>	<p><b>Chemistry Unit 10: Using resources</b>  5.10.1 Using the Earth's resources and obtaining potable water  5.10.2 Life cycle assessment and recycling</p> <p><b>Physics Unit 7: Magnetism and electromagnetism</b>  6.7.1 Permanent and induced magnetism, magnetic forces and fields  6.7.2 The motor effect</p>
<p style="text-align: center;"><b>Summer Half term 1</b></p>	<p><b>Revision</b></p>
<p style="text-align: center;"><b>Summer Half term 2</b></p>	<p><b>GCSE Examinations</b></p>
<p style="text-align: center;"><b>Homework</b></p>	<p><b>Homework</b>  Graded tasks.  Revision packs.  Exam booklets.</p>

<b>Useful Resources</b>	Study packs on every section are on the learning platform. CGP Revision guides. School's Share point. BBC Bitesize. Seneca