



## QPHS Year 11 Combined Science Curriculum Map

Half term	Title	Unit summary	Assessment
<b>1</b>	B7 Ecology (Teacher 1)	<ul style="list-style-type: none"> <li>Adaptations, interdependence and competition.</li> <li>Food chains, the water and carbon cycle.</li> <li>Biodiversity and the effect of human interaction on ecosystems.</li> </ul>	<ul style="list-style-type: none"> <li>Required practical – sampling techniques to investigate the effect of light on the distribution of plants.</li> <li>End of topic test with cumulative content from year 10 biology.</li> </ul>
	P5 Forces part 1 (Teacher 2)	<ul style="list-style-type: none"> <li>Forces; scalar and vector quantities, contact, gravity and resultant forces</li> <li>Work done and energy transfer</li> <li>Forces and elasticity</li> </ul>	<ul style="list-style-type: none"> <li>Required practical – investigate the relationship between force and extension for a spring.</li> <li>End of topic test with cumulative content from year 10 physics.</li> </ul>
<b>2</b>	C6 Rates (Teacher 2)	<ul style="list-style-type: none"> <li>Rate of reaction</li> <li>Catalysts</li> <li>Reversible reactions and equilibrium</li> </ul>	<ul style="list-style-type: none"> <li>Required practical – investigate how changes in concentration affect the rates of reactions.</li> <li>End of topic test with cumulative content from year 10 chemistry.</li> </ul>
	C7 Organic Chemistry (Teacher 1)	<ul style="list-style-type: none"> <li>Crude oil, hydrocarbons and alkanes</li> <li>Fractional distillation</li> <li>Cracking and alkenes</li> </ul>	<ul style="list-style-type: none"> <li>Required practical – investigate how chromatography can be used to separate coloured substances.</li> <li>End of topic test with cumulative content from year 10 chemistry.</li> </ul>
	C8 Chemical Analysis (Teacher 1)	<ul style="list-style-type: none"> <li>Purity and formulations</li> <li>Chromatography</li> <li>Gas tests</li> </ul>	
<b>3</b>	P5 Forces part 2 (Teacher 2)	<ul style="list-style-type: none"> <li>Motion; distance, displacement, speed, velocity, acceleration and momentum.</li> <li>Newton's laws of motion</li> <li>Forces and braking</li> </ul>	<ul style="list-style-type: none"> <li>Required practical – investigate the effect of varying force and mass on acceleration.</li> <li>End of topic test with cumulative content from year 10 and 11 physics.</li> </ul>
	B5 Homeostasis and Response (Teacher 1)	<ul style="list-style-type: none"> <li>Homeostasis and the nervous system</li> <li>Human endocrine system</li> <li>Hormones in reproduction and controlling blood glucose</li> </ul>	<ul style="list-style-type: none"> <li>Required practical – plan and carry out an investigation into the effect of a factor on human reaction time.</li> <li>End of topic test with cumulative content from year 10 and 11 biology.</li> </ul>
	C9 Chemistry of the Atmosphere (Teacher 2)	<ul style="list-style-type: none"> <li>The development of the atmosphere</li> <li>Greenhouse gases and global climate change</li> <li>Atmospheric pollutants and their effects</li> </ul>	<ul style="list-style-type: none"> <li>Required practical – Analysis and purification of water samples.</li> <li>End of topic test with cumulative content from year 10 and 11 chemistry.</li> </ul>
	C10 Using Resources (Teacher 2)	<ul style="list-style-type: none"> <li>Using the Earth's resources and how to reduce the use of these</li> <li>Potable water and waste water treatment</li> <li>Life cycle assessment and recycling</li> </ul>	
<b>4</b>	B6 Inheritance, Variation and Evolution (Teacher 1)	<ul style="list-style-type: none"> <li>Reproduction and meiosis</li> <li>DNA, inheritance, genetic engineering and selective breeding</li> <li>Variation, evolution and classification</li> </ul>	<ul style="list-style-type: none"> <li>End of topic test with cumulative content from year 10 and 11 biology.</li> </ul>
	P6 Waves (Teacher 2)	<ul style="list-style-type: none"> <li>Properties of waves</li> <li>Electromagnetic waves</li> <li>Uses and applications of electromagnetic waves</li> </ul>	<ul style="list-style-type: none"> <li>Required practical – making observations to measure the frequency, wavelength and speed of a wave.</li> <li>Required practical – investigating the amount of radiation absorbed and radiated by a surface.</li> <li>End of topic test with cumulative content from year 10 and 11 physics.</li> </ul>
	P7 Magnets and Electromagnets (Teacher 2)	<ul style="list-style-type: none"> <li>Poles of a magnet</li> <li>Magnetic fields</li> <li>The motor effect</li> </ul>	
<b>5</b>	Revision		