

# BTEC level 3 extended certificate Applied science Curriculum plan.

	Teacher 1		Teacher 2	
YEAR 12	<p><b>Unit 1 Chemistry</b></p> <p><b>Periodicity and properties of elements</b></p> <p>A1 Structure and bonding</p> <p>A2 Production and uses of substances in relation to properties</p>	<p><b>Unit 2 Scientific procedures and techniques</b></p> <p>A. Undertake titration and colorimetry to determine the concentration of solutions</p> <p>B. Undertake calorimetry to study cooling curves</p> <p>C. Undertake chromatographic techniques to identify components in mixtures</p>	<p><b>Unit 1 Biology</b></p> <p><b>Structure and functions of cells and tissues</b></p> <p>B1 Cell structure and function</p> <p>B2 Cell specialisation</p> <p>C3 Tissues structure and function</p> <p><b>Unit 1 Physics</b></p> <p><b>Waves in Communication</b></p> <p>C1 Working with Waves</p> <p>C2 Waves in communication</p> <p>C3 Use of electromagnetic waves in communication</p>	<p><b>Unit 2 Scientific procedures and techniques</b></p> <p>D. Review personal development of scientific skills for laboratory work</p>
YEAR 13	<p><b>Unit 3 Science Investigation Skills.</b></p> <p><b>G. Energy content of fuels</b></p> <p>G1 Fuels</p> <p>G2 Hazards associated with fuels</p> <p>G3 Units of Energy</p>		<p><b>Unit 3 Science Investigation Skills.</b></p> <p><b>D. Enzymes in action</b></p> <p>D1 Protein structure</p> <p>D2 Enzymes as biological catalysts in chemical reactions</p> <p>D3 Factors that can affect enzyme activity</p>	
	<p><b>Unit 9 Human regulation and reproduction.</b></p> <p>A. Understand interrelationship and nervous control of the cardiovascular and respiratory systems.</p> <p>B. Understand the homeostatic mechanisms used by the human body</p> <p>C. Understand the role of hormones in the regulation and control of the reproductive system.</p>		<p><b>E. Diffusion of molecules</b></p> <p>E1 Factors affecting the rate of diffusion</p> <p>E2 Arrangement and movement of molecules</p> <p><b>F. Plants and their environments</b></p> <p>F1 factors that can affect plant growth and/or distribution</p> <p>F2 Sampling techniques</p> <p>F3 Sampling sizes</p> <p><b>H. Electrical circuits</b></p> <p>H1 Use of electrical symbols to design circuits</p> <p>H2 Equations</p> <p>H3 Energy usage</p>	