

Criteria	Paper 1	Unit B4
Short key title from which the learning is derived.	TOPIC	Bioenergetics
<p>A clear outline of the knowledge which the students will receive across the topic.</p> <p>A clear overview of the explanation that should be delivered in order for pupils to progress.</p> <p><i>The detail for the above needs to be sufficient that teachers and leaders are aware of the key required knowledge to plan individual classes to suit context of students.</i></p>	KNOWLEDGE TAUGHT	<p>Bioenergetics</p> <ul style="list-style-type: none"> • This process of photosynthesis and factors that affect its rate • Uses of plant glucose • Types of respiration, Aerobic, Anaerobic and Yeast • How exercise affects Respiration • Metabolism
<p>A clear outline of the skills which will be developed in order to support their knowledge acquisition and application.</p> <p>A clear outline of trips / visits which will underpin and embed their knowledge along with supporting Cultural Capital.</p>	SKILLS DEVELOPED <i>(Include any trips and visits)</i>	<p>Bioenergetics</p> <ul style="list-style-type: none"> • Investigate Rate of Photosynthesis • Reading scales and using apparatus • Using data to compare respiration types (Graphs and Tables)
<p>A clear explanation of assessments which will provide students with feedback on how to secure progress.</p> <p>Formative; Verbal / Peer / Self feedback should be connected to each lesson to support next step planning.</p> <p>Written feedback should be initiated at least twice per half term.</p> <p>Summative; to support application of topic knowledge.</p> <p><i>Workbooks will clearly demonstrate the progress of students learning through the topic.</i></p>	ASSESSMENTS <i>(Minimum two per half term, with focussed marking)</i>	<ul style="list-style-type: none"> • Half Term Test • Assessed Tasks for Bioenergetics • Verbal feedback given with lessons and Peer/ self-assessment linked to exam content linked to every lesson. • Covered in PPE 1
<p>A clear outline of Home Learning which will be provided weekly.</p> <p><i>Provide 'nugget title' if using Century resources.</i></p> <p><i>Student progress needs to be recorded.</i></p>	HOME LEARNING <i>(To be made available via Century Tech; one per week)</i>	<ol style="list-style-type: none"> 1. Photosynthesis & Plant response 2. Limiting factors 3. Controlling Photosynthesis 4. Aerobic & Anaerobic respiration 5. Effects of exercise 6. Revision for Half term Test
<p>A clear explanation of prior learning which would have been required in order to build the learning for this topic.</p> <p>A clear explanation of positioning which justifies why this topic is being taught at this stage.</p> <p><i>Identify 'gaps' that need to be addressed and planned in order to support students learning steps.</i></p>	SEQUENCING <i>(What must students already have been taught in order to begin to learn this topic? Identify opportunities to</i>	<p>Year 7 Cell covering the basic structure and function of cells and their organelles</p> <p>Year 8 Respiration and Photosynthesis Topics cover all the basics of bio energetics topic</p> <p>Paper 1 needs to be taught to cover content for PPE 1.</p> <p>Year 10 Cells Topic taught covering cell structure, function and transport.</p>

	<i>address knowledge gaps)</i>	
<p>A clear explanation of how Fundamental British Values and SMSC are addressed within the topic.</p> <p>An identification of cross-curricular links to ensure correlation between topics and sequencing is considered to secure student learning.</p>	<p><i>SCHEMAS</i> <i>(Where might students learn about elements of this topic in other subjects? Which subjects might this topic feed into beyond your own?)</i></p>	<p>Food Tech PE Health and Social Care English Maths</p>
<p>Outline career paths which use the knowledge and skills learnt in this topic.</p>	<p><i>CAREERS LINKS</i> <i>(How might this benefit them in the future?)</i></p>	<p>Literacy skills – relevant for all future career and post-16 pathways. Medical industry Horticulture Sport Scientific Research</p>