

Subject	Year	Term
Biology	13	1
Topic		
Energy & Ecosystems		
Content (Intent)		
Prior Learning (Topic) Year 13 – Photosynthesis, Respiration		
<ul style="list-style-type: none"> Plants synthesize organic compounds from carbon dioxide Most sugars used as respiratory substrates, rest to make other biological molecules Biomass GPP + NPP, including calculations Nutrient cycles – nitrogen and phosphorous Use of natural and artificial fertilisers Environmental issues arising from use of fertilisers 		
Future Learning (Topic) Further study at University level		
How will knowledge and skills be taught? (Implementation)	How will your understanding be assessed & recorded (Impact)	
<p>Demos Calorimetry (optional)</p> <p>Practical work Calorimetry (optional)</p> <p>Written Class notes Past paper questions in class Past paper questions in homeworks</p>	<p>- 3 x standard homeworks (Grade given. Written & verbal feedback. Response expected.)</p> <p>-1 x end of topic test (Grade given. Verbal feedback to class and individuals.)</p>	
How can parents help at home?		
<p>Look at the topic specific resources on the VLE</p> <p>Use appropriate youtube channels: cognito, freesciencelessons, Crash Course Biology.</p> <p>Encourage students to use the textbook issued.</p> <p>Take an interest! Ask your children what they have learnt and be curious about their learning.</p>		
Helpful further reading/discussion		
<p>Reading New Scientist Biological Science Review Magazine</p>	<p>Vocabulary Lists <i>Photosynthesis, respiration, gross primary productivity, net primary productivity, energy, nitrates, nitrites,</i></p>	<p>Careers Links Ecologist Environmental Scientist Biological Scientist Conservation</p>

<p>The Biologist Magazine – Royal Society of Biology Royal Society of Biology blog</p>	<p><i>ammonia, phosphates, fertilisers</i></p>	<p>Land management Agriculture & farming</p>
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