

Subject	Year	Term
Biology	12	1
Topic		
Gas Exchange		
Content (Intent)		
Prior Learning (Topic) Students have studied exchange of gasses in alveoli in Y9 science.		
<p><i>Structure and function of human gas exchange</i></p> <p><i>Mechanics of breathing</i></p> <p><i>Lung diseases and its effect on ventilation</i></p> <p><i>Gas exchange structure and function in insects, fish and single celled organisms</i></p> <p><i>Structure of haemoglobin and how this affects function</i></p>		
Future Learning (Topic) Will study diseases more in Y12. Builds on understanding from the cell structure topic at the start of the year		
How will knowledge and skills be taught? (Implementation)	How will your understanding be assessed & recorded (Impact)	
<p>Demos</p> <p>Lung dissection</p> <p>Practical work</p> <p>Fish gill dissection</p> <p>Insect biological drawings</p> <p>Written</p> <p>Notes on theory of gas exchange in different organisms</p> <p>Higher level reading outside of the specification using sciencedaily.com resources.</p>	<p>- 4 x standard homeworks (Level given. Written feedback. Response expected.</p> <p>-1 x end of topic test (Level 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 website such as sciencedaily.com and higher level textbooks available from the library and 6th form science teaching rooms</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</p> <p>Sciencedaily.com</p> <ul style="list-style-type: none"> • Bee Quest - Dave Goulson • The Hidden Life of Trees: What They Feel, How They Communicate - Discoveries from a Secret World by Peter Wohlleben 	<p>Vocabulary Lists</p> <p><i>Diffusion gradient, concentration, spiracle, tracheole, alveoli, surface area, lamellae, gill filament, operculum, affinity, loading, unloading, association, dissociation</i></p>	<p>Careers Links</p> <p>Animal Biology</p> <p>Veterinary nurse</p> <p>Vet</p> <p>Animal rehab centres</p> <p>Pulmonology</p>