

| Subject   | Year   | Term  |
|---|--|---|
| Biology   | 12   | 1   |
| Topic   |  |   |
| Transport Across Membranes  |  |   |
| Content (Intent)  |  |   |
| <b>Prior Learning (Topic) Topic B1 – Cell Biology</b>   |  |   |
| <ul style="list-style-type: none"> <li>• Cell membrane structure and the fluid mosaic model.</li> <li>• Osmosis</li> <li>• Diffusion &amp; facilitated diffusion</li> <li>• Active transport</li> <li>• Adaptations of membranes for rapid transport</li> <li>• Co-transport, including absorption of glucose and amino acids from the gut</li> </ul> |  |   |
| <b>Future Learning (Topic) Year 12 - Immunity</b>   |  |   |
| <b>Year 13 – Photosynthesis; Respiration; Sensing &amp; Responding – Internal &amp; External.</b>   |  |   |
| How will knowledge and skills be taught?<br>(Implementation)  | How will your understanding be assessed & recorded (Impact)  |   |
| <p><i>Demos</i></p> <p><i>Practical work</i><br/>Required practical 3 – osmosis in potato chips<br/>Required practical 4 – cell membrane permeability</p> <p><i>Written</i><br/>Class notes<br/>Past paper questions in class<br/>Past paper questions in homeworks<br/>Write-ups of practicals 3 &amp; 4</p>   | <p>- 3 x assessed homeworks (Grade given. Written &amp; verbal feedback. Response expected.)</p> <p>-1 x end of topic test combined with cells &amp; microscopy (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><b>Reading</b></p> <p>New Scientist<br/>Biological Science Review<br/>Magazine</p>   | <p><b>Vocabulary Lists</b></p> <p><i>Phospholipid, bilayer, glycoprotein, glycolipid, diffusion, facilitated diffusion, osmosis, water</i></p>   | <p><b>Careers Links</b></p> <p>Biochemistry<br/>Biomedical science<br/>Biological sciences<br/>Medicine</p> |

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| <p>The Biologist Magazine –<br/>Royal Society of Biology<br/>Royal Society of Biology blog<br/>Science and Nature<br/>Magazine</p> | <p><i>potential, active transport,<br/>ATP, permeability.</i></p> | <p>Veterinary medicine<br/>Bioveterinary science<br/>Nursing<br/>Midwifery<br/>Healthcare science<br/>Zoology<br/>Radiology<br/>Ecology</p> |
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