

Subject	Year	Term
Biology	12	1
Topic		
Proteins, Enzymes & Digestion		
Content (Intent)		
<b>Prior Learning (Topic) B2b Organisation (Disease &amp; Enzymes); B6 – Inheritance, Variation and Evolution (basics of protein structure)</b>		
<ul style="list-style-type: none"> <li>• Amino acid structure</li> <li>• Role of proteins</li> <li>• Protein structure – primary, secondary, tertiary, quaternary.</li> <li>• Biuret test for proteins</li> <li>• Separating compounds using chromatography</li> <li>• Use of enzymes: digestion – structure and functions of parts of digestive system</li> <li>• Carbohydrate digestion (starch)</li> <li>• Protein digestion</li> <li>• Lipid digestion and absorption</li> </ul>		
Future Learning (Topic)		
How will knowledge and skills be taught? (Implementation)	How will your understanding be assessed & recorded (Impact)	
<p><i>Demos</i> Digestive system functions</p> <p><i>Practical work</i> Biuret test Quantitative Biuret test using colorimetry Chromatography Effect of temperature and pH on enzymes, including Required Prac 1</p> <p><i>Written</i> Class notes Past paper questions in class Past paper questions in homeworks Write-up of Required Prac 1</p>	<p>- 4 x standard homeworks (Grade given. Written &amp; verbal feedback. Response expected.)</p> <p>-1 x end of topic test combined with the Biological Molecules topic (Grade given. Verbal feedback to class and individuals.)</p> <p>- Required prac 1 skills assessed.</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 your child to use the textbook provided by school.</p> <p>Take an interest! Ask your children what they have learnt and be curious about their learning.</p>		

## Helpful further reading/discussion

### Reading

New Scientist  
Biological Science Review  
Magazine  
The Biologist Magazine –  
Royal Society of Biology  
Royal Society of Biology blog  
The Body: a guide for  
occupants – Bill Bryson

### Vocabulary Lists

*Amino acid, Peptide bond,  
Hydrogen bond, Enzyme-  
substrate complex, Active  
site, Denature, Mouth,  
Oesophagus, Stomach,  
Pancreas, Duodenum, Ileum,  
Colon, Bile, Micelle,  
Epithelium, Carbohydrase,  
Peptidase, Lipase.*

### Careers Links

Biochemistry  
Biomedical science  
Biological sciences  
Medicine  
Veterinary medicine  
Bioveterinary science  
Nursing  
Midwifery  
Healthcare science  
Zoology  
Radiology  
Ecology