

# *OCR A LEVEL BIOLOGY*



## *Transition Packet*

### *Staff Contacts*

*Ms B. Jones – Head of Biology [bethany.jones@nobel.herts.sch.uk](mailto:bethany.jones@nobel.herts.sch.uk)*

*Ms Pearson – Head of Science [amy.pearson@nobel.herts.sch.uk](mailto:amy.pearson@nobel.herts.sch.uk)*

*Ms Ormiston – Second in Science [heather.ormiston@nobel.herts.sch.uk](mailto:heather.ormiston@nobel.herts.sch.uk)*



## Bridging the Gap GCSE to A Level Biology

In preparation for starting your A level in Biology please complete the following activities and bring your completed essay, current events and assessment to your first lesson in year 12. When you are certain that you are taking A level Biology, please purchase the core textbook (only Book 1 is necessary at this stage of the course but there is a Year 1 and 2 textbook as well). If you have any questions or problems please contact Ms. Jones.

What do you need to do before you start A level Biology	Name	Explanation	Description of resources
	<p>"Water is an important biological molecule – Discuss"</p>	<p>We would like you to write a 500 word essay on the biological importance of water and attempt to include referencing.</p> <p>Be sure to site your sources.</p>	<p>Guide from OCR on how to reference resources and its importance.</p> <p><a href="https://www.ocr.org.uk/Images/570838-guide-to-referencing.pdf">https://www.ocr.org.uk/Images/570838-guide-to-referencing.pdf</a></p>
	<p>Current Events</p>	<p>Select a current event, academic article or study and provide a detailed response including the following:</p> <ol style="list-style-type: none"> <li>1. Synopsis of piece</li> <li>2. Explanation of why you chose this piece</li> <li>3. How this incorporates within your Biology course (or additional Science)</li> </ol>	<p>Be sure to site your sources.</p> <p>Examples can be found at:</p> <p>RSB Education Bioscience Journals</p> <p>Nobel School Online Library:</p> <p><a href="https://uk.accessit.online/thn03/#!dashboard">https://uk.accessit.online/thn03/#!dashboard</a></p>
	<p>Exam Questions</p>	<p>Complete the exam questions provided using your knowledge of science from KS3 and KS4.</p> <p>Each question must be attempted and all samples of writing must be done using correct grammar, punctuation and spelling.</p>	<p>Answer to the best of your ability and use extra lined paper if needed.</p>
	<p>Head start to A level Biology CGP</p> <p>ISBN: 9781782942795</p>	<p>It would be extremely beneficial to download/purchase this booklet and work your way through it in preparation for September. There are a few questions to check your understanding at the end of each section and the answers are in the back of the book</p>	<p>Can be purchased on Amazon and Waterstones. There are downloadable kindle versions also available.</p>



## A Level Biology Transition Baseline Assessment

The following 40 minute test is designed to test your recall, analysis and evaluative skills and knowledge. Remember to use your exam technique: look at the command words and the number of marks each question is worth. A suggested mark scheme is provided for you to check your answers.

1. a) What are the four base pairs found in DNA?

.....  
(2)

b) What does DNA code for?

.....  
(1)

c) Which organelle in a cell carries out this function?

.....  
(1)

2. a) What theory did Charles Darwin propose?

.....  
(1)

b) Why did many people not believe Darwin at the time?

.....  
(1)

c) Describe how fossils are formed.

.....  
.....  
.....  
(3)

d) The fossil record shows us that there have been some species that have formed and some that have become extinct.

i) What is meant by the term 'species'?

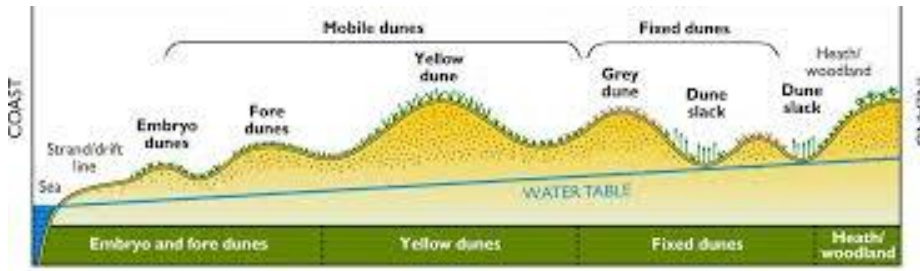
.....  
(2)

ii) Describe how a new species may arise:

.....  
.....  
.....(3)



3. Ecologists regularly study habitats to measure the species present and the effect of any changes. One team of ecologists investigated the habitat shown in the picture below:



a) Define the following keywords:

i) Population

.....

ii) Community

.....

(2)

b) Give an example of one biotic factor and one abiotic factor that would be present in this habitat  
Biotic:

.....

Abiotic:

.....

(2)

c) Describe how the ecologists would go about measuring the species present between the coast and the inland.

.....

.....

.....

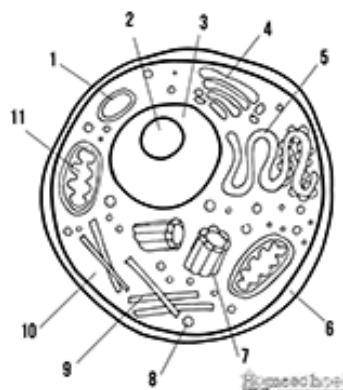
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(6)

4. Every living organism is made of cells.





a) Label the following parts of the animal cell:

2

.....

5

.....

8

.....

(3)

b) Describe how is the structure of the cell membrane related to its function?

.....

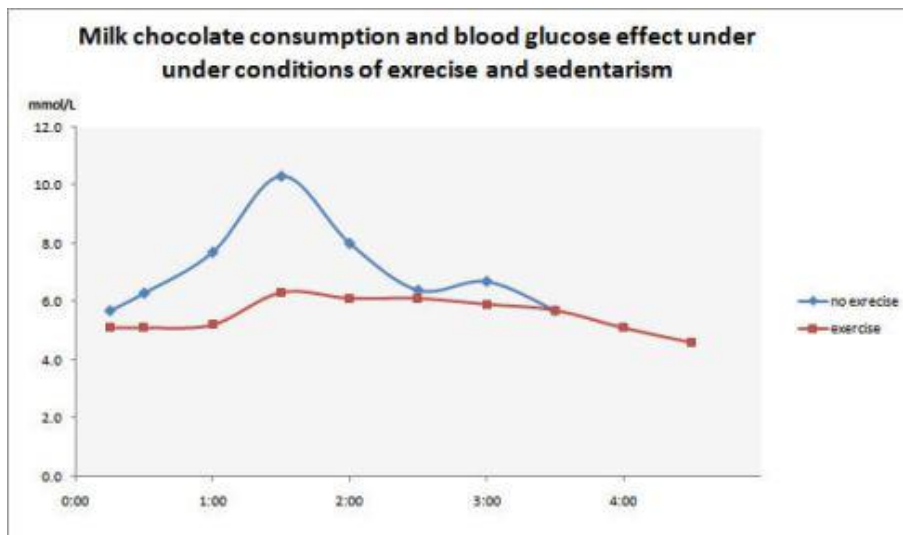
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(3)

5. A medical research team investigated how quickly the body deals with glucose after a meal. They studied the blood glucose concentration of people who exercised versus those who did not. Here are their results:



a) What organ in the body regulates blood glucose concentration?

.....

(1)

b) Explain how the stages that would bring about a return to normal blood glucose concentrations.

.....

.....

.....

.....

(4)

c) Name one variable the researchers will have controlled.

.....

(1)



d) The researchers made the following conclusion:

**“Blood glucose returns to normal values for all people after 4 hours”**

To what extent do you agree with this conclusion.

.....

.....

.....

.....

(3)

6. Scientists need to be able to interpret data in graphs to decide if there are trends in the results.  
For each graph bellow, describe the trend.

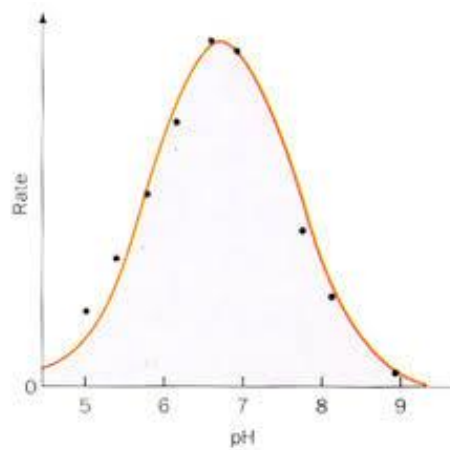
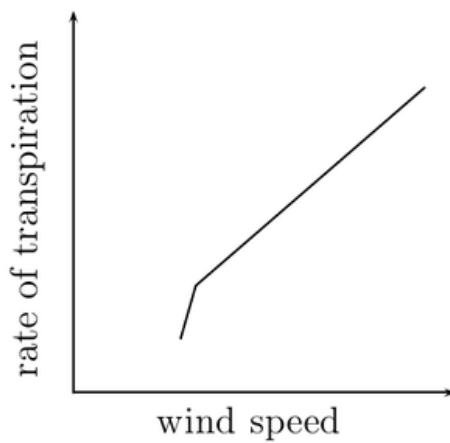
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(4)



Population vs. Time

