

Getting Ready For *A Level Biology*



Name		
A1 Biology	Cytology Assignment	Summer 2019

We are delighted you have chosen to study Biology A level at Worthing College.

Instructions: This pack will help you make the best possible start to studying this subject.

The tasks in this pack:

- should take you **about 4 hours to complete**.
- should be handed into your teacher when teaching starts – **from Monday 16th September**
- are also available on the internet – follow the links in the document.

If you need help: The tasks are designed to get a bit more difficult as you work through them as they are preparing you for studying at a higher level and to become an effective independent learner. You should try to get as far as you can working on your own but if you do need help, please email us at gettingreadyfor@worthing.ac.uk, telling us which Getting Ready For pack you are working on and what help you need. Help is available throughout the summer holidays.

GOOD LUCK!



Skills Focus for this Getting Ready for Pack	
<ul style="list-style-type: none"> • Building on your GCSE knowledge through independent research • Handling data 	<ul style="list-style-type: none"> • Learning to reference your sources • Practice converting units

Summer work –		Topic
Target Grade	Type of task	Task
All	Research and Present	<p>Please complete the following tasks. Each task is designed to take about an hour and there are optional tasks that you can also complete if you choose to. Please bring all completed work to your first Biology lesson.</p> <p>Task 1: Transition guide for Biology A-level</p> <p>Use the link: https://filestore.aqa.org.uk/resources/biology/AQA-7401-7402-TG.PDF to access the Transition guide for Biology A-level. You can print off a copy or complete the activities on paper.</p> <p>Please make sure you complete activities 5, 9, 10 and 11. <i>The rest of the activities are optional.</i></p>

Task 2: Eukaryotic cells

You should have a labelled animal cell and a labelled plant cell from Activity 5 of the transition guide. Add drawings and definitions of the following cell structures that you will use in A-level Biology:

Smooth endoplasmic reticulum	Rough endoplasmic reticulum	Golgi apparatus
Lysosomes	Centrioles	Vesicles

Optional - find out and explain the connection between the Nucleus, Endoplasmic Reticulum, Ribosomes, Golgi apparatus and Vesicles in manufacturing proteins made by a cell.

Task 3: Prokaryotic cells

- Find a diagram of a typical Prokaryotic cell (bacterium) and label (don't forget to source).
- Draw (in diagram form) each of the structures of a prokaryotic cell below and describe their function

Genetic material	Cell wall	Capsule	Plasma membrane
Ribosomes	Flagellum	Plasmid	

Task 4: Microscope conversions:

Describe how you convert the following units by completing the table:

Converting...	Into...	Or abbreviated to....	Divide or multiply	By.....
Millimetres	centimetres	mm→cm	÷	10
Centimetres	millimetres			
Millimetres	micrometres			
Micrometres	millimetres			
Micrometres	nanometres			
Nanometres	micrometres			

Practice your conversions by filling in the following table (if question is in standard form, give answer in standard form):

Convert....	Into...
264 mm	cm
4.2×10^{-4} mm	μm
412 nm	μm
7.2×10^3 μm	mm
8.73×10^5 nm	mm

Information sources:

You can find most of this information in any A level Biology book; most libraries have these.

Some useful internet links:

<http://www.cellsalive.com>

<http://www.s-cool.co.uk/a-level/biology>

<https://www.khanacademy.org/science/biology/structure-of-a-cell>