

AICE Biology

Welcome to AICE Biology! This course is designed to help you to pass The AICE AS level Biology test. This is a college level course and as a result you will be expected to study both inside and outside of the classroom. Your first learning opportunity begins over the summer.

If you look at the Cambridge website, they have provided a learner's guide which can be found here:

<http://www.cie.org.uk/images/150289-cambridge-learner-guide-for-as-and-a-level-biology.pdf>

This guide explains the outline of the test and the syllabus for the class. You may want to look at this guide so that you can see what the test will be like. This guide is for both the AS and A level test, so we will only be covering the AS level material. For example, you will take tests (they call them papers) 1-3. Papers 4 and 5 are for the A level test. We will be covering this all year but you may want to look at the learners guide to get a head start.

This is the link to our textbook that can be viewed online:

<https://www.gceguide.xyz/files/e-books/a-level/Cambridge%20International%20AS%20and%20A%20Level%20Biology%20Coursebook.pdf>

The first unit is about cells and using the microscope. In Biology you learned about cells and their organelles. You need to review the following information over the summer and come back to school ready to be tested. You should be able to:

A.) Recognize **on a diagram the following cell structures and** outline their functions: * **Make flash cards. You will need to know about the organelles all year.***

- 1) cell membrane
- 2) nucleus, nuclear envelope and nucleolus
- 3) rough endoplasmic reticulum
- 4) smooth endoplasmic reticulum
- 5) Golgi body (Golgi apparatus or Golgi complex)
- 6) mitochondria
- 7) ribosomes
- 8) lysosomes
- 9) centrioles and microtubules
- 10) chloroplasts
- 11) cell wall
- 12) plasmodesmata
- 13) large permanent vacuole and tonoplast of plant cells

B.) Explain the differences between **PLANT** and **ANIMAL** cells using a T-chart, double-bubble mind map or other graphic organizer

C.) Be able to compare and contrast Prokaryotes and Eukaryotes. **SUMMARIZE** the needed information in a Venn diagram, t-chart or other graphic organizer.

In summary, be ready to be tested on the organelles of the cells, the differences between plant/ animal cells, and prokaryotes/eukaryotes.

If you have any questions please email Ashley Bacigalupi at Ashley.Bacigalupi@browardschools.com. Have a great summer!