

A Level Biology

Year 12

AQA

Name: _____

Tutor: _____

1.4 Aims

The aims of these specifications are to encourage candidates to:

- develop their interest in and enthusiasm for biology, including developing an interest in further study and careers in biology;
- appreciate how society makes decisions about scientific issues and how the sciences contribute to the success of the economy and society;
- develop and demonstrate a deeper appreciation of the skills, knowledge and understanding of *How Science Works*;
- develop essential knowledge and understanding of different areas of biology and how they relate to each other.

The first year of the course is made up of 2 units:

Unit 1 Biology & Disease	Unit 2 The variety of living organisms	Practical Skills in Biology 1
<ul style="list-style-type: none">• Causes of disease• Enzymes & digestive system• Cells & movement• Lungs & Lung Disease• Heart & Heart disease• Immunity	<ul style="list-style-type: none">• Variation• DNA and Meiosis• Genetic diversity• The variety of life• The cell cycle• Cellular organisation• Exchange & Transport• Evidence for relationships between organisms• Adaptation & Selection• Biodiversity	<ul style="list-style-type: none">• Internal assessment of practical skills
1 hour 30 mins written exam June of Yr 12	1 hour 30 mins written exam June of Yr 12	Internal Assessment in Spring term

The specification you will study is found at:

<http://www.aqa.org.uk/subjects/science/as-and-a-level/biology-7401-7402/specification-at-a-glance>

Helpful websites:

- <http://www.s-cool.co.uk/alevel/biology.html> (good for revision)
- <http://www.rsc.org/education/teachers/learnnet/cfb/contents.htm> (Chemistry for Biologists)
- <http://www.sumanasinc.com/webcontent/animations/biology.html> (animations)
- <http://www.stolaf.edu/people/giannini/biological%20anamations.html> (animations)

Podcasts

- <http://www.sciam.com> this has a daily 60 second science podcast at the bottom of the page. **Highly recommended.**
- <http://www.thenakedscientists.com>

<http://www.nature.com> good if you are thinking of medicine/veterinary science
<http://www.newscientist.com>

Preparation for the A level Biology Course

Within the first two weeks of term your suitability for the course will be assessed.

Progression onto the course will depend upon the outcome of;

- A written test to ensure your GCSE Biology knowledge is up to scratch
- Completion of this transition booklet
- A research task

Research task

Produce a project about eukaryotic and prokaryotic cells and their organelles.

You will need to research their structure and function and also provide images.

Your research project should have a suitable introduction and you should also provide evidence of the sources of information that you have used. Plagiarism will not be permitted.

Plagiarism

Plagiarism is where you use someone else's information in your work and try to pass it off as your own. This includes copying and pasting information from the internet, and writing out passages from books.

So... always say where the information came from!

Types of Plagiarism

Copying - using exact words and phrases without saying where they have come from. This can only be used if you put quotation marks around it and say exactly who and where the words came from.

Paraphrasing is changing some words or punctuation but leaving most of the text the same. You must make the phrase your own and then say where the information came from.

Original Text	Student's text
While the Education Act of 1870 laid the groundwork for the provision of elementary or primary education for all children in England and Wales, it was not until the implementation of the 1944 Education Act that all girls and boys were entitled to a secondary education.	The Education Act of 1870 put down the basis for providing primary education for every child in the United Kingdom. It was not, however, until the establishment of the 1944 Education Act that all male and female children were given the right to education at secondary school.

Patchwork plagiarism is changing the order of text but keeping the same information and not saying where it came from.

Original	Student's work
Amphibia, which is the animal class to which our frogs and toads belong, are thought to have been the first animals to crawl from the sea and inhabit the earth.	The first animals to leave the sea and live on dry land were the amphibia.

Task 1 - If you really want to share a quote from someone's work, it needs to have quotation marks around it and end with the Surname, initials, then the year of print in brackets. E.g. 'It is extremely important to use quotation marks around a quote'. Kelly. C., (2008).

Now you try;

Task 2 - Summarising information is a very useful skill which is ok to use as long as you include a reference. Using the example above as a guide, produce your own example from a chosen text.

Original	Your Summary

To be able to use this in your work, you have to cite the work by putting the surname, initials, then the year of print in brackets.

You also need to put a full reference in your reference list at the end of your work.

Kelly, C., (2008); *How to Reference Your Work Correctly*. St George's Press, Lincoln.

<http://www.uefap.com/writing/exercise/plagiar/plagex1.htm>

activity on plagiarism - what is acceptable?

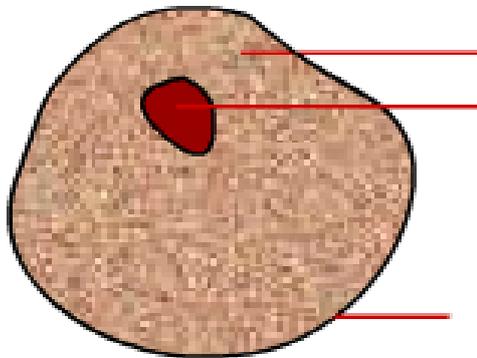
<http://www.uefap.com/writing/exercise/plagiar/plagex2.htm>

activity on plagiarism - which example is the correct way to go?

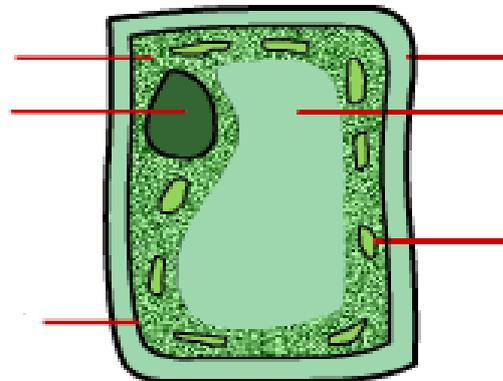
1. What is a cell?

2. Label the diagrams of a plant cell & animal cell.

Animal Cell



Plant Cell



3. State the function of each organelle

-
-
-
-
-
-

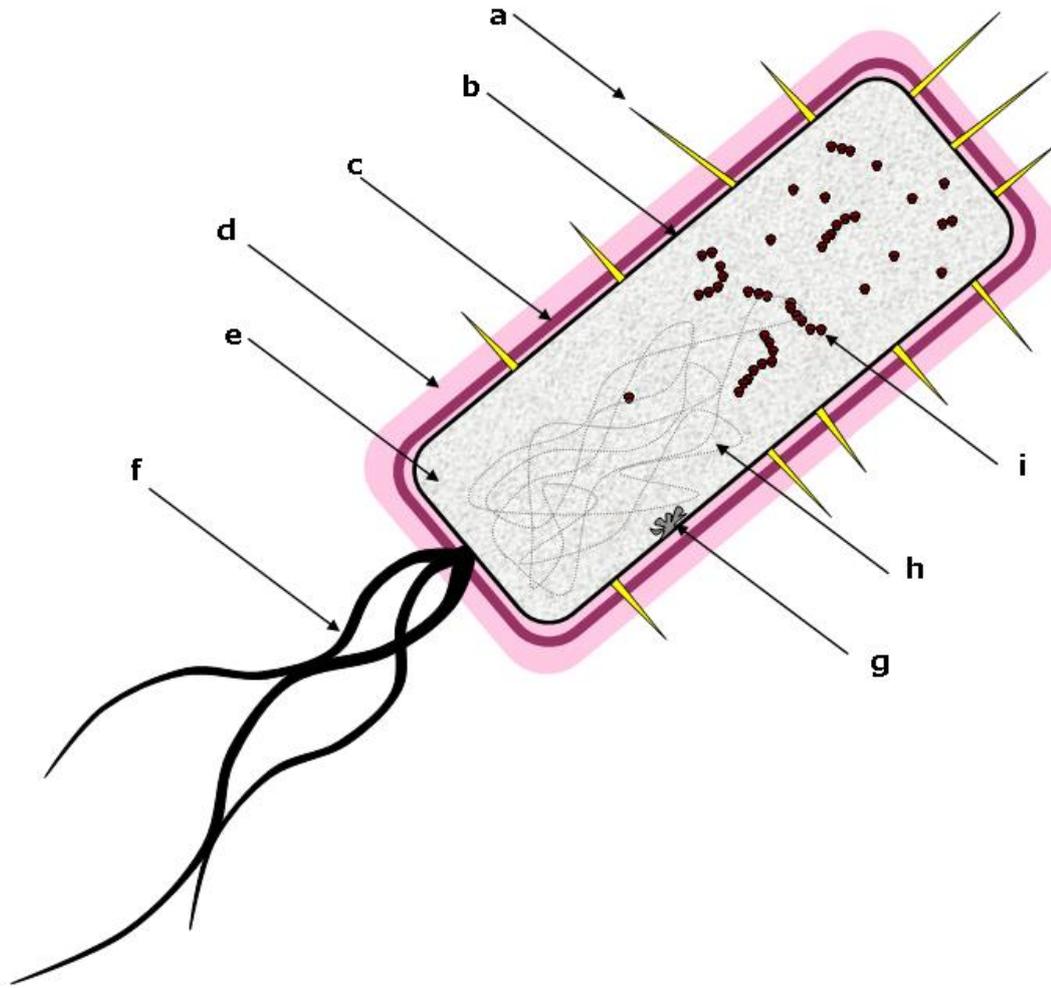
There are two types of cell, prokaryotic and eukaryotic.

4. What do the words 'prokaryotic' and 'eukaryotic' mean?

Use resources to find out, make sure that you state where you have got your information from.

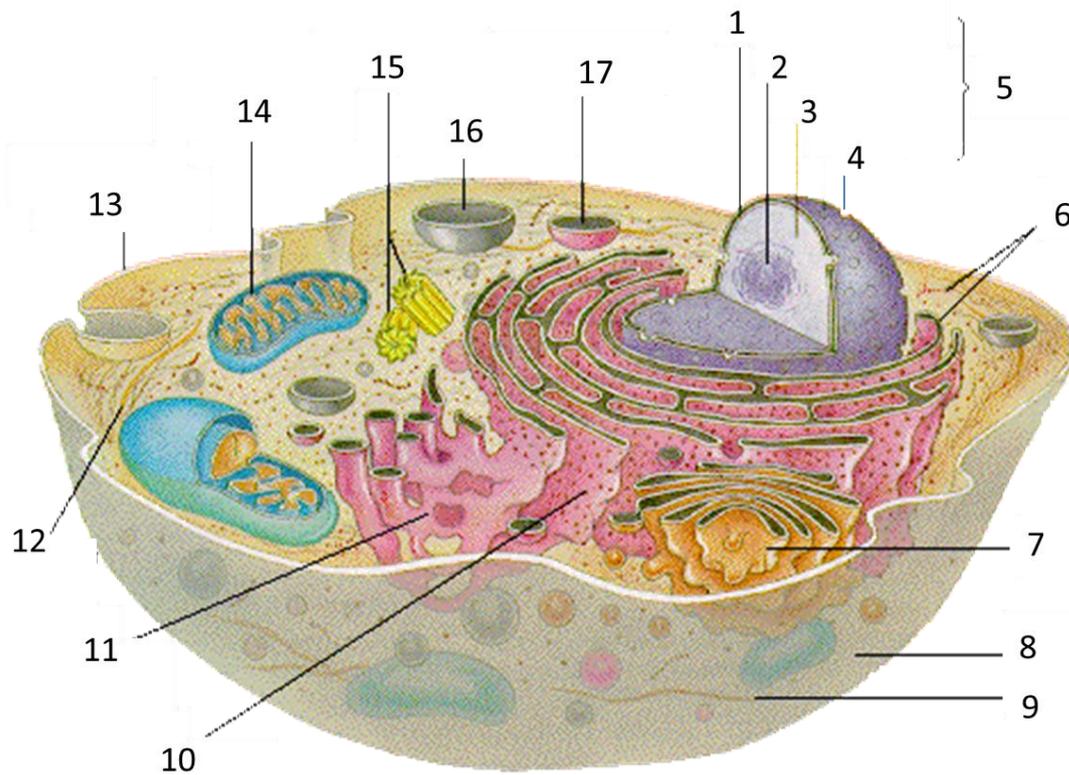
References;

This is a prokaryotic cell.
Complete the table.



Name	Function
a.	
b.	
c.	
d.	
e.	
f.	
g.	
h.	
i.	

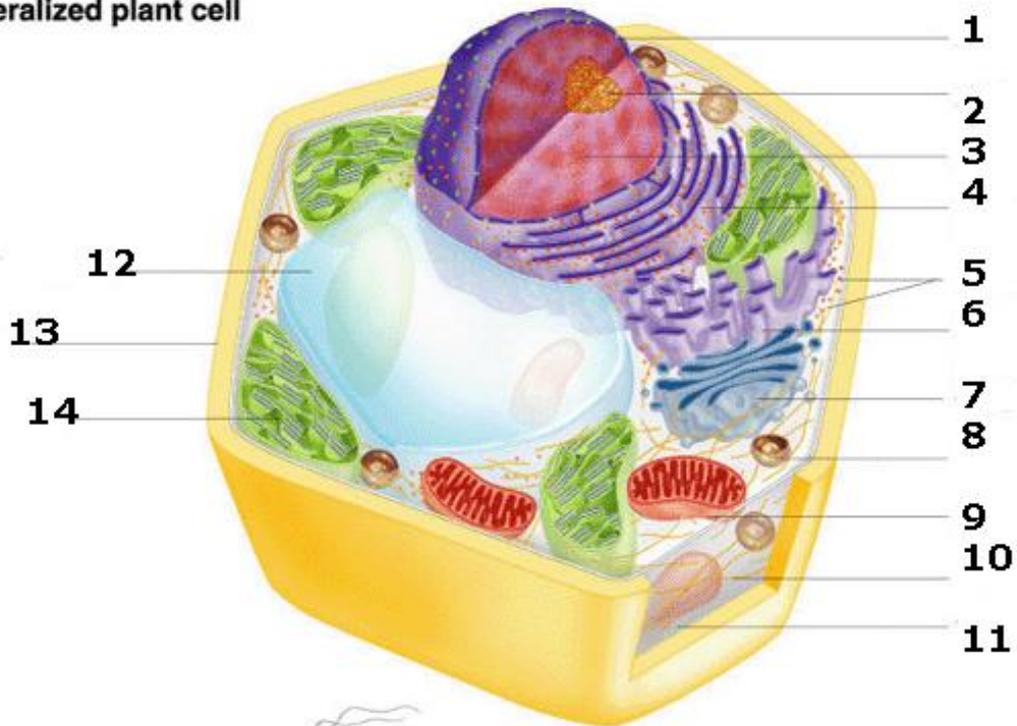
This is a eukaryotic animal cell.



Name	Function
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	

This is a plant cell.

Generalized plant cell



On average, prokaryotes are about 10 times smaller than eukaryotic cells in diameter and about 1000 times smaller than eukaryotic cells in volume.

Which of the labelled parts are **not** found in animal cells?
Name them and give their functions.