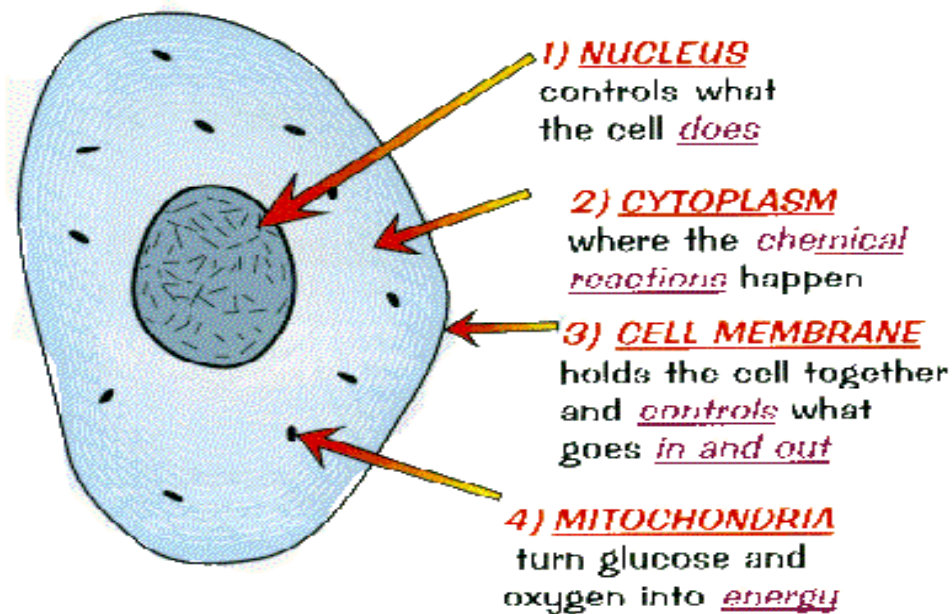
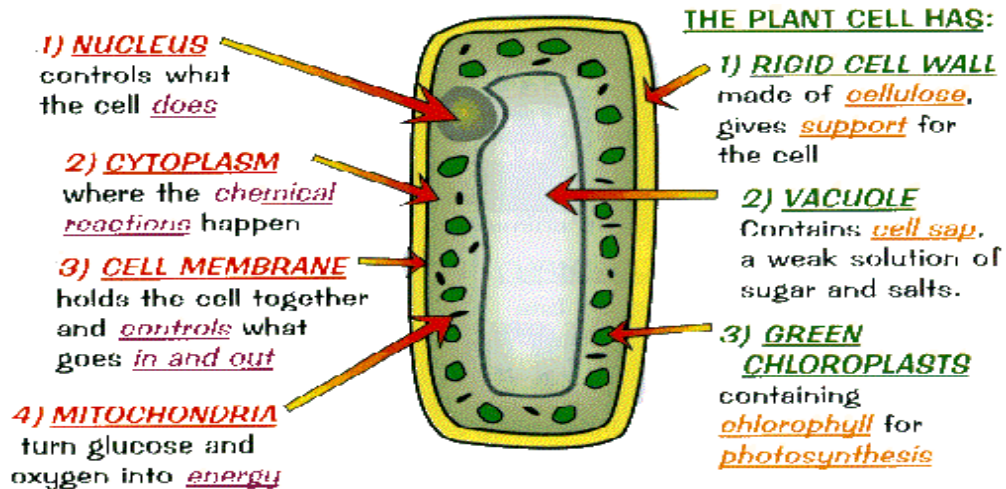


## Pre-A Level Task: Cell Biology

### Part 1

The cell is the basic unit of life and you should already be aware of the structure of a typical animal and plant cell.



These diagrams actually hide the true complexity of the cell, there are many additional structures found within cells that you don't study at GCSE.

## Your Task

- 1) Research the detailed, ultrastructure of a typical animal and plant cell using the list of structures below. State the **structure, size and function** of each of these structures, called organelles.

Rough endoplasmic reticulum (RER)  
Smooth endoplasmic reticulum (SER)  
Golgi apparatus  
Mitochondria  
Ribosomes  
Lysosomes  
Chloroplasts  
Plasma (cell surface) membrane  
Centrioles  
Nuclear envelope  
Nucleus  
Nucleolus  
Flagella  
Cilia  
Cytoplasm

- 2) You must draw **2 large, labelled diagrams** of a **plant cell** and an **animal cell**. These must be completed to A level standard (see the websites below).
- 3) Reference all your sources of information. Useful websites include:
  1. <http://www.biologymad.com/>
  2. <http://cellsalive.com/>
  3. <https://studyrrocket.co.uk/revision/a-level-biology-aqa/cells/cells>
  4. <https://www.youtube.com/watch?v=dLJdRs5w4u4>
  - This has to be written in your own words and must not be copied from the internet.

## Part 2

Plant cells and animal cells have a number of similarities and differences. Complete the table to highlight these.

- **YOU WILL NEED TO REVISE BOTH TASKS BECAUSE YOU WILL SIT AN INDUCTION TEST DURING THE FIRST WEEK IN SEPTEMBER.**

YOUR COMPLETED TASKS MUST BE HANDED IN AT THE BEGINNING OF YOUR FIRST LESSON IN SEPTEMBER.

	<b>Plant Cell</b>	<b>Animal cell</b>
<b>SIMILARITIES</b>		
<b>DIFFERENCES</b>		