

A Level Biology – New Student Day Activity

TASK 1

Activity: **Microscopes**

1. Use the link remind yourself how to use a microscope to view cells
<https://www.bbc.co.uk/bitesize/guides/z84jtv4/revision/4>
2. Produce a table to compare
 - a light microscope
 - a transmission electron microscope
 - a scanning electron microscope

You could include how they work, advantages and disadvantages

Extension

What rules do you need to follow to produce a biological drawing of what you see down the microscope?



Now that we've done a little work on microscopes, it's time to think about what we can use them to view by creating your own cell.

TASK 2

Activity: Making a cell

Make a model cell containing the following parts

- cell-surface membrane
- nucleus
- mitochondria
- Golgi apparatus and Golgi vesicles
- lysosomes (a type of Golgi vesicle that releases lysozymes)
- ribosomes
- rough endoplasmic reticulum and smooth endoplasmic reticulum



Extension

What parts would you need to add to transform your creation into a plant cell?

In complex multicellular organisms, cells become specialised for specific functions. Specialised cells are then organised.

TASK 3

Activity: Organisation

Research the following questions

1. Define tissue, organ and organ system
2. Give an example from the body of each
3. Produce a fact sheet on the digestive system



Extension

There are many different areas that nurses can specialise in, if you were to become a nurse which area would interest you and why?