Microscopes and Animal Cells

Viewing Animal Cells

- WALT: Label an animal cell and prepare a slide for the microscope

- I must be able to label the parts of an animal cell and know what the key parts are
- I should be able to correctly prepare a cheek cell slide
- I could identify the key parts of the cheek cell from the microscope

Last lesson we learnt that …..

Some parts of the microscope are…..

Some uses of the microscope are …….

We can measure the size of a specimen on the slide by ……

Today we are going to learn about cells and view some under the microscope

What is a cell?

- All living material is made from cells
- Most have specialised functions like blood cells, nerve cells, leaf cells etc
- There are two main types – plant cells and animal cells

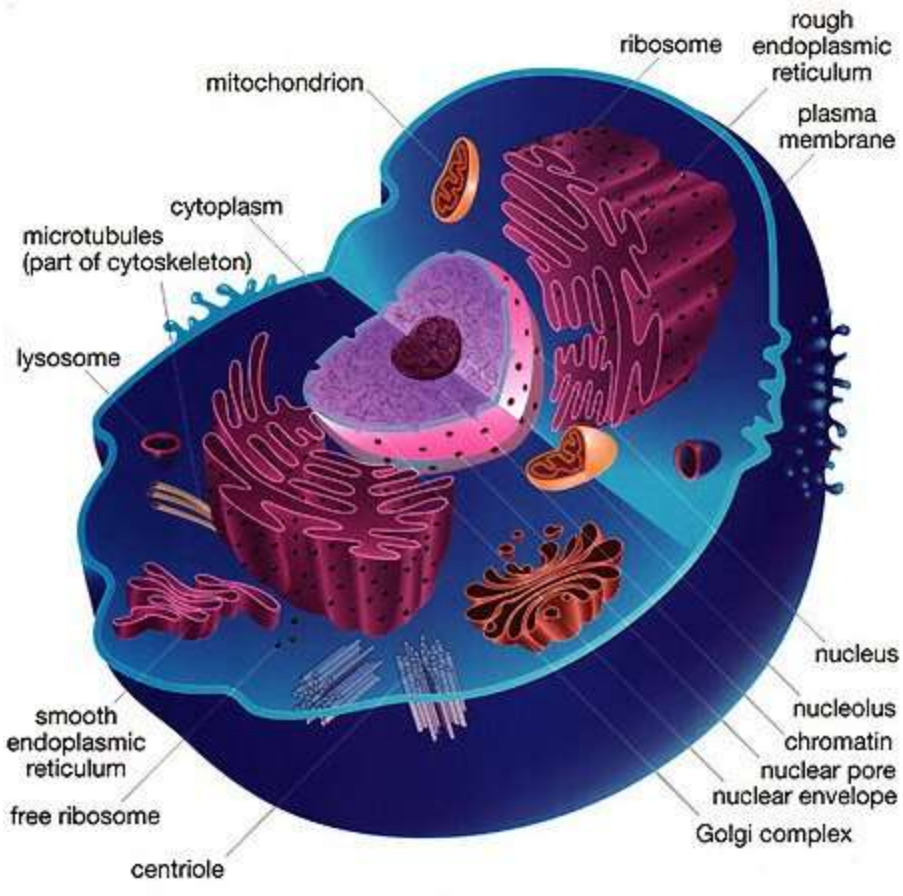
Cells, Tissues and Organs

- Tissues = groups of cells that all have similar structures and functions (jobs) – e.g. blood, bone

- Organs = A body part made of a group of tissues. Organs have specialised functions - e.g. heart, liver

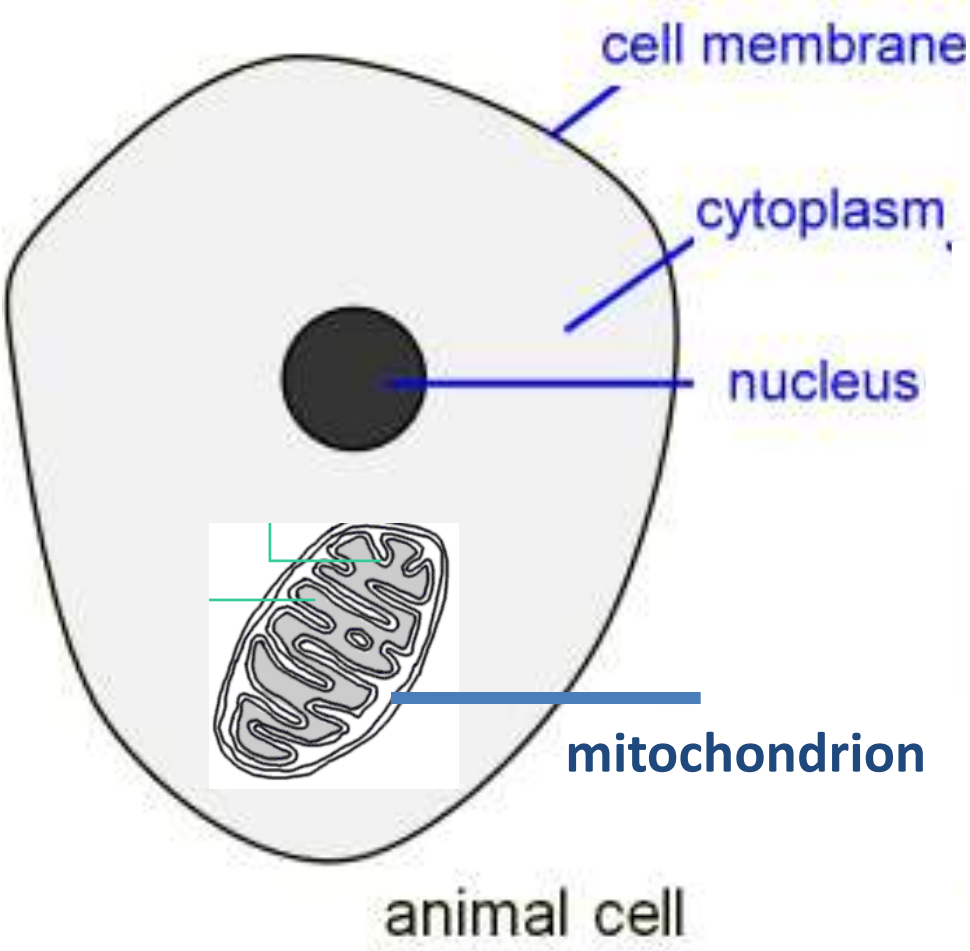
See this on page 11.

An animal cell has many organelles (different parts)



But luckily you only need to know 4.

Structure of an animal cell



Structure	Function
Nucleus	- Contains genes - Genes control proteins that control all our characteristics (e.g. eye colour etc)
Cell membrane	- Controls movement of substances in and out of cell
Cytoplasm	- Where cell activities take place
Mitochondria	- Where energy is made

We are going to see if we can take a cell from our own bodies and view it under a microscope

1. Using a cotton wool swab, rub it on the inside of your cheek roughly
2. Scrape your swap in the centre of a clean slide
3. **<u>Place your cotton wool swab in the disinfectant</u>**
4. Let your slide dry
5. Add one drop of methylene blue to stain your slide
6. Place a cover slip on it view it under the microscope
7. Draw and label what you see
8. Measure one of your cheek cells

When you are finished

Use page14 and 15 of your books to answer:

1. Why do we stain the slide with methylene blue?
2. Blood cells are said to be ‘specialised’. What does this mean?
3. We have been using a light microscope. What is an electron microscope?

Plenary

- In the back of your books, draw a quick sketch of an animal cell. Swap books and label your partner's cell. Include as much information as you can.