

## **KS5 Homework focus: Unit 1: Cell Theory and Microscopy**



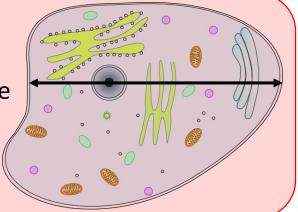
Try your best to answer the RAG'ed questions below.

Research cell theory development and create a timeline.

Explain the key differences between light microscopy and electron microscopy



Calculate the magnification of the diagram on the right. The actual size of the image is  $100\mu m$ .





## **KS5 Homework focus: Unit 1: Structure and Function of Cells**



Try your best to answer the RAG'ed questions below.

Find different images of plant and animal cells and identify the organelles present and describe their functions. Produce revision cards on all the organelles that you would find in an animal cell, plant cell or bacterial cell. On one side, write the name of the organelle and on the other side, write its function.



Discuss the similarities and differences between animal cells, plant cells and bacterial cells.



## **KS5 Homework focus: Unit 1: Specialised Cells**



Try your best to answer the RAG'ed questions below.

Compare the structure and function of a leaf palisade cell and a root hair cell.

Produce a poster summarising the structure and function of 4 different specialised cells.



Research two disorders in humans that may cause these specialised cells to change in structure and therefore not be able to carry out their function efficiently.



## **KS5 Homework focus:**Unit 1: Nervous Tissue



Try your best to answer the RAG'ed questions below.

Describe the differences between resting potential and action potential.

Produce a flow chart to show a step-by-step guide to chemical transmission across the synapse.



Draw a graph to illustrate the changes in polarity across a neuronal membrane.