

This document contains resources to support the teaching of AQA AS and A-level sciences. Some of the resources on these pages are third party content produced for sharing.

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This resource was provided as an example of good practice from Mary Philpott, Biology Adviser at CLEAPSS.

Supported by



# Biological drawings

Some pointers

# Some things to consider

Biological drawings:

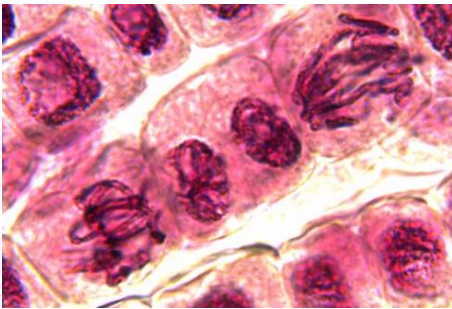
- Record observations of the actual material , and are therefore likely to show features that are different from diagrams/photographs
- Communicate the features that have been discovered through DETAILED examination of the material, and may therefore show structures that cannot be identified
- Illustrate a 3D structure in a 2D format. It is therefore useful to use a different type of line for features that are above/below the main focussing plane of the drawing.
- A line marks a boundary between two different observed structures. The drawing is therefore equivalent to a map drawn to identify features of an aerial/satellite view of geographical area. the boundary lines should therefore be clear, continuous and thin.
- Labelling should identify known features, and also communicate the appearance of other features

These pointers are in addition to the guidance given by the Awarding Body/ Exam board.

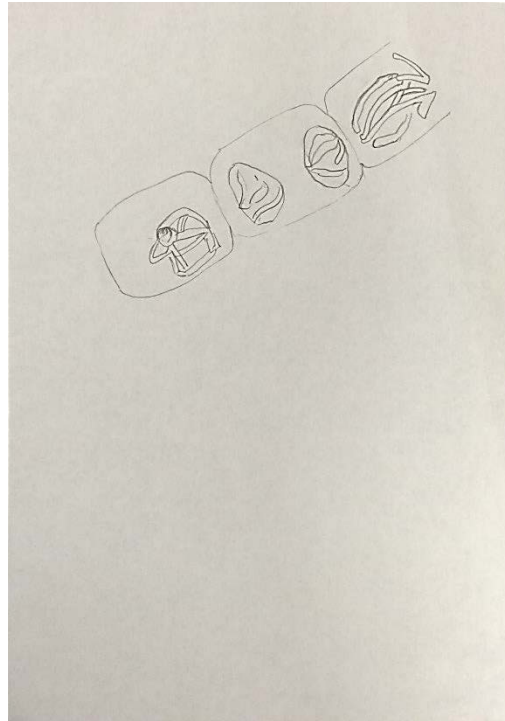
The exam boards will specify the need for heading/labels, scale etc.

# An example of a poor drawing

Cells undergoing mitosis from a root tip meristem (x1000 magnification)



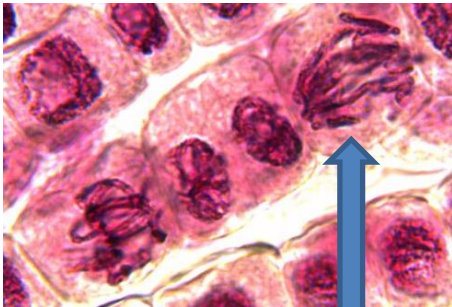
Student has drawn three central cells



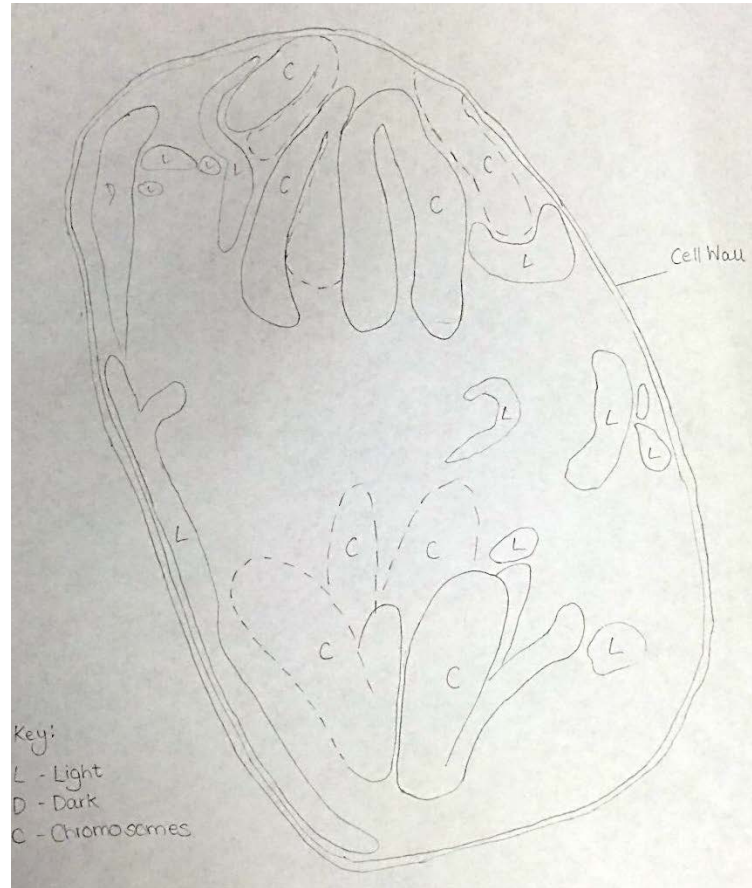
- Small (drawing is on an A4 page)
- Boundary lines are broken and incomplete. This makes it difficult to work out where cells begin and end.
- No labelling
- Many features that are visible are not included
- No evidence of 3D structure that would be visible with controlled focussing

# An example of a good drawing

Cells undergoing mitosis from a root tip meristem (x1000 magnification)



Student has drawn this cell in detail



Large (full page of A4)  
Boundary lines are thin and clear  
Labelling communicates all features observed  
Most features that are visible are included  
Evidence of 3D structure that is visible using controlled focussing. Dotted lines are used for features that are out of the plane of focus