

## Advice on drawing from the microscope in 9700.

Here is some advice on drawing low power plan diagrams and high power drawings of cells.

### Plan diagram

A plan diagram shows the distribution of tissues in a section. It also shows the proportions of the different tissues. Although called a *low power* plan diagram you may use high power to identify the different tissues and to be sure you are putting the boundaries of those tissues in the right place. You do not draw any cells in a lower power plan diagram.

When you make a plan diagram, follow these simple rules:

- make the drawing fill most of the space provided; leave space around the drawing for labels and annotations (if required by the question)
- use a sharp HB pencil (never use a pen)
- use thin, single, unbroken lines (often called 'clear and continuous lines')
- show the outlines of the tissues
- make the proportions of tissues in the diagram the same as in the section
- do *not* include drawings of cells
- do *not* use any shading or colouring

Add labels and annotations (notes) to your drawing *only* if you are asked for these in the question. Use a pencil and a ruler to draw straight lines from the drawing to your labels and notes. Write labels and notes in pencil in case you make a mistake and need to change them. You may leave your labels and notes in pencil – do not write over them in ink.

**High power drawings** should show a small number of cells and they should be drawn a reasonable size so you can show any detail inside them. When you make a high power drawing, follow these simple rules:

- make the drawing fill most of the space provided; leave space around the drawing for labels and annotations (if required by the question)
- use a sharp HB pencil (never use a pen)
- use clear, continuous lines (see above)
- draw *only* what is asked in the question, e.g. three cell types or one named cell and all cells adjoining it
- show the outlines of the cells

- the proportions of cells in the drawing must be the same as in the section you are drawing
- plant cell walls should be shown as double lines with a middle lamella between the cells; the proportions of cell walls should be drawn carefully.
- show any details of the contents of cells – draw what you see not what you know should be present
- do not use any shading or colouring