ADVICE ABOUT MAKING LABORATORY SKETCH NOTES

We are concerned with drawing because we are concerned with critical observation. The reason drawings are assigned from time to time in this course is the need to re-train your eyes and brain from simply looking at things, to making observations that are biologically significant. This objective is complicated by the fact that the drawing (any drawing) is an abstraction – after all, even a professional photograph does not present everything you could see in an object or a scene. To a greater or lesser degree, aspects of the object are selected and recorded in accord with some objective. Sketch notes should capture significant features that will help you to learn and recall essential information about a specimen later on.

Insofar as possible, follow these simple rules when drawing for lab:

1. Use plain white, 8 ½ x 11 paper and hard lead pencil. The bookstore has paper called Botanical Drawing Paper, but any hard surface bond will do.
2. DO NOT use colors, soft pencil, or ink.
3. Limit your style to simple line drawings. DO NOT shade, cross-hatch, or fill in “solid” areas. If you must go beyond a simple line, use stippling.
4. Take advantage of the whole sheet of paper. Just because the object may be small doesn’t mean the drawing must be small also.
5. Begin by getting your general outline and part in proportion. How? Try measurement. Is the head twice as long as wide?
6. LABEL your drawing. Identify all important structures clearly and simply. Indicate a scale (e.g. use a scale bar) to show the size of the object you have drawn. What is it that you have drawn? If a plant or animal, classify it appropriately. Is it drawn from fresh/living material? Or is it drawn from prepared or preserved material? If a slide, indicate that it is a whole mount, cross section or longitudinal section.
7. When drawing a microscopic object, indicate the total magnification used to view it. For example, state the magnification is 100x when using the 10x objective lens. NOTE, however, that magnification alone does not indicate the size of the object you have drawn – always include a scale bar as well.
8. Use your eye and your mind but not your imagination. In other words, draw what you see in the context of what you are trying to show. By context we mean to show the larger aspect of the specimen perhaps as a simple outline drawing to demarcate regions or tissues that differ and draw more detailed sketches of cells or structures in those different regions to show how they differ and perhaps relate to each other.

The example sketches below may be of some help. The sketches were made with a student microscope using 430x magnification. The groups of cells from a plant stem are many things, but, what they are not is all the same. Every cell is an individual. What they are not are little strings of boxes or “foothills” drawn without looking. Cells that make up tissues look different from one another – your sketch should capture the essential differences in their appearance.