

Lab Final Study Guide

- General lab equipment - names and uses.
- How to draw a graph (axes with reasonable and even scale, labels and units; a title, independent variable on the bottom axis, dependant variable on the side axis).
- Macromolecule tests - biuret for protein, benedicts for reducing sugars, IKI for starch. What a positive and a negative test looks like for each.
- Explaining or predicting the movement of water by osmosis. Using the correct terms concerning tonicity for the environment or a cell.
- Metric measurement conversions.
- Estimating cell sizes using a microscope.
- Calculating total magnifications from the ocular and objective lens powers.
- General features of animal and plant cells viewed using a compound microscope.
- Determining flow of energy between objects. Identifying and describing the two laws of thermodynamics.
- Substrates, products, what enzyme are made of and how they work. What effects enzyme activity.
- What happens at each step of a PCR reaction and why different temperatures are needed through the cycle.
- Determining relative DNA fragment lengths using gel electrophoresis.
- Identifying the stages of mitosis and meiosis using models of chromosomes.
- Determining genotypes from phenotypes and vice versa.