**Chapter 3 (and axillaries)**

1. Microscopes
   1. Be able to identify all parts of a microscope
      1. Eyepiece
      2. Body tube
      3. Nose piece
      4. Objective lenses
      5. Arm (neck)
      6. Stage
      7. Stage clips
      8. Diaphragm
      9. Base (foot)
      10. Light source
      11. Coarse adjustment (when is it used and **NOT** used)
      12. Fine adjustment
   2. Be able to calculate total magnification
   3. Know how to handle and use a microscope
      1. Carrying to and from desk
      2. What is used to clean microscopes and slides
      3. Be able to focus on high power
2. Cells
   1. Differences between animal cells and plant cells
   2. Be able to identify the organelles and know their function
      1. Cell wall
      2. Plasmalemma
      3. Cytoplasm
      4. Nucleus
      5. Endoplasmic reticulum
      6. Central vacuole
      7. Plastids
         1. Chloroplasts
            1. Membranes
            2. Thylakoids
            3. Stroma
            4. Grana
         2. Amyloplasts
         3. Chromoplasts
         4. Leucoplasts
      8. Dictyosomes
      9. Ribosomes
      10. Mitochondria
3. Cell Cycle
   1. Know the 4 stages of the cell cycle in order **and** what occurs in each
      1. G1
      2. S
      3. G2
      4. M
   2. Know which of these stages is the longest and the shortest
   3. Know the stages of Mitosis in order **and** what is happening in each
      1. Prophase
      2. Metaphase
      3. Anaphase
      4. Telophase
      5. Cytokinesis
   4. Know which of these stages is the longest and the shortest
   5. What is karyokinesis?
4. Vocabulary
   1. (Refer to sect. 2.b)