**LAB 7: The Plasma Membrane**

**PURPOSE: Learn how the plasma membrane controls cell contents through the dual processes of diffusion and osmosis.**

**Goals for today:**
* explain how you set up your experiments.
***** explain the results of your experiments and observations.
***** predict the movement of solutes based on size and concentration.
***** predict the movement of water under different conditions of tonicity.

***For all exercises today, follow instructions precisely. Be sure to read all the text and answer all questions in the text.***

**p. 49-51 section 4.3 Diffusion**
__ read introduction to diffusion top of p. 49, then SKIP AHEAD to "Diffusion Across the Plasma Membrane" p. 50.
__ set up plasma membrane experiment (p. 50)

- tubing has been cut for you
- use _____ of glucose
- use _____ of starch
- fill beaker to just cover cell: *do not overfill*
- use _____ iodine
- experiment must sit for at least 30 minutes
- Benedict's tests require warming for 5 minutes in water bath

__Table 4.3, conclusions

**p. 52-55 section 4.4 Osmosis**
__ read introduction to osmosis at top of p. 52, then SKIP AHEAD to "Tonicity" p. 53
__ set up potato strip experiment (must sit for 45 minutes to an hour)
__ observe tonicity in red blood cells
__ make wet mount of elodea cells

**Good review: p. 58 #s 8-13**