SECTION 3.3

CELL MEMBRANE

Power Notes

Functions:

contains cell contents, controls what enters and exits a cell

Phospholipids:

form a double layer surrounding a cell; composed of a charged phosphate group, glycerol, and two fatty acid chains; head is polar and forms hydrogen bonds

Cell Membrane

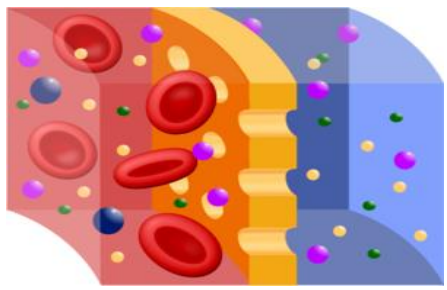
Fluid mosaic model:

describes the arrangement of molecules making up a cell membrane; the membrane is flexible like a fluid and has a variety of molecules like the variety of tiles in a mosaic

Other molecules:

- cholesterol strengthens membranes,
- proteins aid cell identification and movement of molecules across membranes and cell signaling,
- carbohydrates aid cell identification The sketch should look similar to Figure 3.18

Sketch a semipermeable membrane.



Selective permeability:

- allows some materials to cross;
- can also use terms such as semipermeable and selectively permeable;
- enables a cell to maintain homeostasis;

Receptors: detect a signal molecule and perform an action in response

- **Intracellular** located inside a cell; bind to molecules that can cross the membrane
- **Membrane** located in the membrane; binds to molecules than cannot cross the membrane;
  change in shape transmits the message to the cell interior