

## FES 100 – Introduction to Forest Biology

Week 4 – Question for September 26, 2007

On a separate sheet of paper, in the upper right corner, write your GROUP NUMBER, **names of all group members**, and today's date. If you did not bring notes to class, then you will need to work alone.

1. Sketch a cross section showing a portion of the phospholipid bilayer of a cell membrane.
2. Indicate the polar and non-polar components.
3. Sketch a molecule that can diffuse across the membrane.
4. Sketch a molecule that can NOT diffuse across the membrane.
5. Let sugar be represented by a circle. Place the circles on one side of the membrane.
  - a. Indicate where the sugar molecules will diffuse.
  - b. Indicate where the water molecules will diffuse.
6. What will happen to the membrane when a sharp pointed needle penetrates it? (permanent hole, burst, other?)

Full credit is worth 5 points. Depending on the quality of your answers, you may get more, you may get less.

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