

WINK SHEET— Cellular Transport

Theme: Transport processes which move materials into and out of the cell serve to maintain the homeostasis of the cell.

Expectations:

- * Develop and use models to exemplify how the cell membrane serves to maintain homeostasis of the cell through both active and passive transport processes.
- * Ask scientific questions to define the problems that organisms face in maintaining homeostasis within different environments (including water of varying solute concentrations).
- * Analyze and interpret data to explain the movement of molecules (including water) across a membrane.

Objectives: On a scale of 0-5, with 0 being “I know absolutely nothing” and 5 being “I am exceptionally confident in my ability,” please rank your understanding of each objective at the end of the unit.

- _____ Draw and label the structures of the cell membrane and describe how it controls cellular transport
- _____ Differentiate between active and passive transport
- _____ Describe the relationship between solute, solvent, and solutions and how each affects concentration
- _____ Describe how differences in concentration across a membrane drive osmosis
- _____ Using data determine how water moves across a membrane and how the movement of water is related to concentration differences
- _____

Textbook: We will be covering pages _____ in your textbook. Please mark which statements apply to your use of the textbook on this unit.

- _____ I read the entire reading for this chapter
- _____ I read part of the reading for this chapter
- _____ I used the textbook to assist in my understanding of vocabulary from this unit
- _____ I used the textbook to assist in my understanding of the objectives
- _____ We have a text book?
- _____ Other _____

Vocabulary:

- | | | |
|--------------------|---------------------|--------------|
| • Cell membrane | • passive transport | • hypertonic |
| • Vacuole | • solute | • hypotonic |
| • cell wall | • solvent | |
| • homeostasis | • osmosis | |
| • active transport | • isotonic | |

Activities

- egg lab
- potato lab
- osmosis foldable