1. Introduction:
   a. Does the movement of molecules to fill a space require energy?
   b. What are the two forms of transports?
   c. What is Diffusion and describe an example in living systems.
   d. What is specific to Osmosis?
   e. What is a specific type of diffusion that requires proteins?
   f. What substance is needed for Active Transport? Why?
   g. What is the most “famous” example of active transport?
   h. What is the name of two large-scale forms of active transport?

2. Diffusion:
   a. In his example, when the gray and black particles move, what determines which direction?
   b. Is the ordered movement?
   c. Where can diffusion be seen in living systems?
   d. Define Osmosis:
   e. Draw the U-Tube experiment before and after:
   f. Why does the slug shrivel up?
g. Draw a red blood cell in three different types of solutions (his diagram):

h. Define Hypertonic:

i. Define Hypotonic:

j. Define Isotonic:

k. Concerning facilitated diffusion: What doesn’t it require? What does it require?

l. What is the difference between diffusion and facilitated diffusion?

m. What is a “concentration gradient”?

n. Describe how glucose must enter a cell, explain why.

o. What is “co-transport”? – describe an example

3. Active Transport
   a. What is active transport? – how is it different from passive?

   b. Describe how the sodium potassium pump works.

   c. What the is ATP: Na : K ratio?

   d. What is endocytosis? Describe how it takes place.

   e. What is exocytosis?