

Grade 9, 10

Distance Learning Module 3: Week of: 4/13 - 4/17

Content Area: Biology Level 2- Modified from [Unit 3 - Cell Transport](#)

Targeted Goals from Stage 1: Desired Results

Content Knowledge:

1. Because diffusion depends upon random particle movements, dissolved molecules move along a concentration gradient across the cell membrane without requiring energy.
2. Osmosis is the diffusion of water through a selectively permeable membrane

Vocabulary:

Mixture, solution, solute, solvent, cell membrane, concentration, concentration gradient, diffusion, semipermeable, equilibrium.

Skills:

Use a model to illustrate the organization of interacting systems that provide a specific function within a multicellular organism

Expectation:

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Monday: Students read background information on Osmosis lab, watch embedded videos, and complete "Observations and Predictions" questions.	Osmosis Lab - Distance Learning Activity	Students will type their answers directly into the Osmosis Lab - Distance Learning Activity document and turn it in via Google Classroom once the entire activity is completed.
Tuesday:	Osmosis Lab - Distance Learning Activity	Data and answers to post-lab questions

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Students use teacher provided data to create a graph and answer post-lab questions	Lab Data Graph paper	entered directly into the Osmosis Lab - Distance Learning Activity on Google Classroom. Snapshot of graph uploaded to assignment in Google Classroom.
Wednesday: Students create a visual model of what is happening in the Osmosis Lab Activity	Osmosis Lab - Distance Learning Activity Google Draw Printer Paper Notebook Paper	Student generated model - written form, or using Google Draw, uploaded to the assignment in Google Classroom.
Thursday: Students create a visual model of what is happening in the Osmosis Lab Activity	Osmosis Lab - Distance Learning Activity Google Draw Printer Paper Notebook Paper	Student generated model - written form, or using Google Draw, uploaded to the assignment in Google Classroom.
Friday: Students will finish the creation of their visual model and answer the two remaining questions (about their model) in the Osmosis Lab - Distance Learning Activity document.	Osmosis Lab - Distance Learning Activity Google Draw Printer Paper Notebook Paper	Model (Google Draw or snapshot) uploaded and turned in via Google Classroom. Completed questions in the Osmosis Lab - Distance Learning Activity document turned in via Google Classroom.

Week criteria for success (attach student checklists or rubrics):

Students will be introduced to the idea that molecules can pass through the cellular (semipermeable) membrane. Students will be presented with the challenge of determining what types of particles pass through cell membranes. Students will also be introduced to the concept of concentration and the movement of particles over a concentration gradient. Model checklist present in Osmosis Lab document.

Supportive resources and tutorials for the week (plans for re-teaching): Video chats with the teacher to answer questions.