

Name: Langteau		Grading Quarter: 2	Week Beginning: Week 12
School Year: 2024/2025		Subject: Biology	
Monday	Notes:	<p>Objective: Students will understand the basics of cellular transport, focusing on passive transport mechanisms such as diffusion and osmosis.</p> <p>Lesson Overview:</p> <p>This lesson introduces the concept of cellular transport, highlighting the importance of maintaining homeostasis. Students will explore passive transport processes, including diffusion, facilitated diffusion, and osmosis, using real-world examples.</p>	<p>Academic Standards:</p> <p>HS-LS1-3</p>
	Notes:	<p>Objective:</p> <p>Students will analyze how diffusion and osmosis occur through the selectively permeable cell membrane.</p> <p>Lesson Overview:</p> <p>This lesson focuses on how substances move across the cell membrane through diffusion and osmosis. Students will conduct a simple lab experiment, such as using dialysis tubing or potato cores to observe osmotic pressure and diffusion in action.</p>	<p>Academic Standards:</p> <p>HS-LS1-2</p>
	Notes:	<p>Objective:</p> <p>Students will understand active transport mechanisms and how cells use energy (ATP) to move substances against concentration gradients.</p> <p>Lesson Overview:</p> <p>This lesson covers active transport, explaining how cells move materials using energy, such as with pumps and vesicles (endocytosis and exocytosis). Examples like the sodium-potassium pump will be used to illustrate active transport in action.</p>	<p>Academic Standards:</p> <p>HS-LS1-3</p>
	Notes:	<p>Objective:</p> <p>Students will explore bulk transport processes (endocytosis and exocytosis) and how cells move large particles in and out</p> <p>Lesson Overview:</p> <p>This lesson focuses on bulk transport, explaining the role of vesicles in processes like endocytosis (phagocytosis and pinocytosis) and exocytosis. Students will participate in a group activity to model how cells use these processes to take in or expel large molecules.</p>	<p>Academic Standards:</p> <p>HS-LS1-3</p>
Thursday			

Friday	Notes:	<p>Objective: Students will conduct a lab experiment to investigate the effects of osmosis and diffusion on cell membranes and analyze the results</p> <p>Lesson Overview: In this culminating hands-on lab, students will design and carry out an experiment to observe diffusion and osmosis using living or non-living materials (e.g., egg membrane in various solutions or plant cells in salt water). The activity will help reinforce key concepts from the week's lessons.</p>	<p>Academic Standards:</p> <p>HS-LS1-3</p>
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