

Name: _____ Period: _____

<p>AP Biology Unit 2. Campbell Ch. 6-7. Your task is to create a quick study card for the Exam. MUST be handwritten. Accuracy, Neatness – Use ruler to draw charts, tables, etc. and appropriate use of color. Color needs to be embedded and used appropriately (<u>DO NOT just color large sections different colors.</u>) Title of the Quick Study Card in the Top Center of the page First and Last Name, Date in upper right.</p>	<p>checklist</p>
<p>1. Science skills: construct a box and whisker chart with correct orientation, labels, units, scales.</p>	
<p>2. Create a chart of the following cell components: ribosomes, rER, sER, Golgi complex, mitochondria, chloroplasts, lysosomes, vacuoles. Include a sketch of the component, the functions, any enzymes or interior parts, major processes, and types of organisms containing these components.</p>	
<p>3. Why are cells small? Demonstrate mathematically what happens as cells increase in size. What processes or functions become inefficient? How do larger cells solve those problems? Give examples.</p>	
<p>4. What is the importance of membranes in the cell? Consider both the external plasma membrane and internal membranes. Explain how prokaryotes compartmentalize reactions without the use of organelles.</p>	
<p>5. Diagram a phospholipid the fluid mosaic model of the plasma membrane. How does the hydrophobic/ hydrophilic nature of portions of the phospholipid and the protein affect its position in the membrane? Include steroids, glycoproteins, and glycolipids in your diagram. What are their functions?</p>	
<p>6. Define selective permeability. How does the structure of the plasma membrane determine the permeability of various types of molecules? Give examples of molecules which can and can not freely diffuse through the membrane.</p>	
<p>7. How do cell walls influence structure and cell permeability? What are cell walls made of and which types of organisms have walls?</p>	
<p>8. Make a chart comparing passive and active transport. Include direction of concentration gradient, examples of molecules, use of energy, and types of cell structures/ molecules needed for the process.</p>	
<p>9. Distinguish between endocytosis and exocytosis. Diagram.</p>	
<p>10. What is facilitated diffusion? What cell components are needed and what molecules move through the membrane this way? What are aquaporins?</p>	
<p>11. What is the Na/K pump and what is its significance to the cell? What is membrane potential or polarity?</p>	
<p>12. Define hypotonic, hypertonic and isotonic. Diagram and explain how water will move in each case. What is water potential? Give the equation and explain its components.</p>	
<p>13. Diagram and explain the endosymbiotic theory. Cite at least 3 lines of evidence.</p>	
<p>TOTAL</p>	