

## **Unit 4 – Cells Vocabulary and Key Questions**

Use this document as a **starting point** for your review and study. It is **not** a study guide and should **not** be the only thing you rely on to be prepared for assessments.

<ul style="list-style-type: none"><li>• cell</li><li>• cell theory</li><li>• cell membrane</li><li>• nucleus</li><li>• eukaryote</li><li>• prokaryote</li><li>• cytoplasm</li><li>• organelle</li><li>• ribosome</li><li>• endoplasmic reticulum</li><li>• Golgi apparatus</li><li>• vacuole</li><li>• lysosome</li><li>• cytoskeleton</li><li>• chloroplast</li><li>• mitochondrion</li><li>• cell wall</li><li>• lipid bilayer</li></ul>	<ul style="list-style-type: none"><li>• selectively permeable</li><li>• homeostasis</li><li>• diffusion</li><li>• facilitated diffusion</li><li>• aquaporin</li><li>• osmosis</li><li>• isotonic</li><li>• hypertonic</li><li>• hypotonic</li><li>• osmotic pressure</li><li>• tissue</li><li>• organ</li><li>• organ system</li><li>• receptor</li><li>• ATP</li><li>• photosynthesis</li><li>• pigment</li><li>• chlorophyll</li></ul>	<ul style="list-style-type: none"><li>• thylakoid</li><li>• stroma</li><li>• electron carrier</li><li>• light-dependent reactions</li><li>• light-independent reactions</li><li>• calorie</li><li>• cellular respiration</li><li>• aerobic</li><li>• anaerobic</li><li>• glycolysis</li><li>• Krebs cycle</li><li>• electron transport chain</li><li>• matrix</li><li>• fermentation</li></ul>
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- ✓ What are the main points of the cell theory?
- ✓ How do microscopes work?
- ✓ How do prokaryotic and eukaryotic cells differ?
- ✓ What is the role of the cell nucleus?
- ✓ What organelles help make transport proteins and other molecules?
- ✓ What are the functions of vacuoles, lysosomes and the cytoskeleton?
- ✓ What are the functions of the chloroplasts and mitochondria?
- ✓ What is the function of the cell membrane?
- ✓ How does passive transport work?
- ✓ How does active transport work?
- ✓ How do single-cells organisms maintain homeostasis?
- ✓ How do the cells of a multicellular organism work to maintain homeostasis?
- ✓ Why is ATP useful to cells?

- ✓ What happens during the process of photosynthesis?
- ✓ What role do pigments play in the process of photosynthesis?
- ✓ What are electron carrier molecules?
- ✓ What are the reactants and products of photosynthesis?
- ✓ Where do organisms get energy?
- ✓ What is cellular respiration?
- ✓ What is the relationship between photosynthesis and cellular respiration?
- ✓ How much ATP does cellular respiration generate?
- ✓ How do organisms generate energy when oxygen is not available?
- ✓ How does the body produce ATP during different stages of exercise?