

LIFE PROCESSES AT THE CELLULAR LEVEL

BIOLOGY

LEVEL 2

Study Checklist

If you've picked up this checklist, congrats! You've begun the first step in a system of resources designed to help you through the Cells external. To make the most of this, we suggest you sit down, grab a pen, and mark any points that you're feeling a little unsure of. Then, create a subject audit using our template, or refer to the page numbers to find the section in our walkthrough guide to help you out!

CELL STRUCTURE AND ORGANELLES

- | | | | |
|---|-------|--|------|
| <input type="checkbox"/> I can define what organelles are | [5] | <input type="checkbox"/> I can explain why different cells have different amounts of mitochondria | [9] |
| <input type="checkbox"/> I can explain the function of a cell membrane | [6] | <input type="checkbox"/> I can explain the purpose of chloroplasts | [10] |
| <input type="checkbox"/> I can explain the structure and function of the cell membrane's phospholipid bilayer | [6-7] | <input type="checkbox"/> I can explain the structure and function of a chloroplast | [10] |
| <input type="checkbox"/> I can define and explain the structure and function of the cytoplasm | [7] | <input type="checkbox"/> I can explain why only some organisms have chloroplasts | [11] |
| <input type="checkbox"/> I can define and explain the purpose of the nucleus | [8] | <input type="checkbox"/> I can explain what type of cells have cell walls and what their function is | [12] |
| <input type="checkbox"/> I can explain what mitochondria are | [9] | | |

ENZYMES

- | | | | |
|---|------|--|------|
| <input type="checkbox"/> I can define what a catalyst is | [13] | <input type="checkbox"/> I can explain how temperature effects enzyme function | [16] |
| <input type="checkbox"/> I can explain what an enzyme is | [13] | <input type="checkbox"/> I can explain how pH effects enzyme function | [18] |
| <input type="checkbox"/> I can explain what an enzyme is made of | [13] | <input type="checkbox"/> I can explain how inhibitors effect enzyme function | [18] |
| <input type="checkbox"/> I can explain the relationship between substrates and active sites | [14] | | |
| <input type="checkbox"/> I can compare and contrast the 'lock and key' and 'induced fit' models for enzymes | [14] | | |

TRANSPORT

- | | | | |
|---|---------|--|------|
| <input type="checkbox"/> I can define passive transport | [20] | <input type="checkbox"/> I can define active transport | [22] |
| <input type="checkbox"/> I can explain the process of diffusion | [20] | <input type="checkbox"/> I can explain the purpose of active pumps in the cell membrane | [22] |
| <input type="checkbox"/> I can explain the process of osmosis | [21] | <input type="checkbox"/> I can explain the difference between endocytosis and exocytosis | [23] |
| <input type="checkbox"/> I can explain the process of facilitated diffusion | [21-22] | | |

PHOTOSYNTHESIS

- I can explain the purpose of photosynthesis [24]
- I can define photosynthesis [24]
- I can write down the equation for photosynthesis [26]
- I can explain the differences between the two phases in photosynthesis [26]
- I can explain the purpose of the stroma being clear [28]
- I can explain the purpose of thylakoid sacs existing in stacks [28]

RESPIRATION

- I can define aerobic respiration [29]
- I can write down the equation for respiration [30]
- I can list the three steps of aerobic respiration [31]
- I can explain the purpose of aerobic respiration [31]
- I can explain when and why anaerobic respiration takes place [31]
- I can explain how the wiggly cristae of mitochondria help with respiration [32]

CELL CYCLE

- I can define the four stages of the cell cycle [34]
- I can explain the process of DNA cell replication [34-35]
- I can define the purpose of mitosis [35]
- I can discuss the factors affecting life processes [37]
- I can discuss the reasons for some cells being different from one another [37]

