

## Cells and Systems Summary & Review

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| <p>What do living organisms have in common?<br/>           What variations do we find in their structure and function?<br/>           How do body systems work together to keep organisms healthy?</p> |  |
| <p><b>Key Concepts</b><br/>           Science Focus 8<br/>           ((Unit At A Glance p. 168))</p>   | <p style="text-align: center;"><b>Guiding Questions and Activities to Help you Study</b></p>   |
| <p><b>Topic 1</b><br/>           Living organisms are made from cells<br/>           Structures and Functions<br/>           Levels</p>  | <ul style="list-style-type: none"> <li>- What are the basic functions of all living things, and what are the structures that enable organisms to perform those functions? (p. 98)</li> <li>- How are living organisms organized. (p. 100-101)</li> </ul>   |
| <p><b>Topic 2</b><br/>           The Microscope<br/>           Calculating Field of View</p>   | <ul style="list-style-type: none"> <li>- Describe the changes that took place in the development of the microscope over time.</li> <li>- What are the main parts of the microscope? (p.107)</li> <li>- Describe how to calculate the field of view. (p.111)</li> </ul>   |
| <p><b>Topic 3</b><br/>           Structures of Cells<br/>           (Plant and Animal)</p>   | <ul style="list-style-type: none"> <li>- Identify the main component parts of both the plant cell and the animal cell.</li> </ul>  |
| <p><b>Topic 4</b><br/>           Fluids in Cells<br/>           Diffusion<br/>           Osmosis<br/>           Transpiration</p>  | <ul style="list-style-type: none"> <li>- What is a selectively permeable membrane? (p.128)</li> <li>- Describe Diffusion. (p.129)</li> <li>- Describe Osmosis. (p.130)</li> <li>- What is Transpiration? (p.135)</li> <li>- Explain how a plant transports fluids, from the roots to the leaves.</li> </ul>                                      |
| <p><b>Topic 5</b><br/>           Specialized Cells<br/>           Organization of Cells</p>  | <ul style="list-style-type: none"> <li>- Identify and describe the differences between different specialized cells. (p.138)</li> <li>- What are the primary advantages of multi-cellular organisms (compared to unicellular organisms)?</li> <li>- Describe the levels of cellular organization in a multi-cellular organism. (p.140)</li> </ul> |
| <p><b>Topic 6</b><br/>           Respiratory System<br/>           Circulatory System<br/>           Digestive System<br/>           Excretory System<br/>           Nervous System</p>                | <ul style="list-style-type: none"> <li>- Can you identify the important parts of each of the body systems?</li> <li>- Describe how each body system has a particular function. (p.153)</li> <li>- How do the different body systems work together? Give specific examples.</li> </ul>  |
| <p><b>Topic 7</b><br/>           Disorders<br/>           Healthy Life Choices<br/>           and Styles</p>   | <ul style="list-style-type: none"> <li>- How can you keep each of your body systems healthy?</li> <li>- What disorders are common in each of the body systems?</li> <li>- What life style choices should be made if we want healthy bodies?</li> </ul>   |
| <p style="color: #800000;">Design a Concept Map linking the ideas introduced and reinforced in this Unit on <b>Cells and Systems</b></p>   |  |
| <p>Try some of the <u>Practice Quizzes</u> to see how much you have recalled from this Unit</p>  |  |