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| **Lesson 1** | |
| 1. What are the three principles of the cell theory?  1.  2.  3. |  |
| 2. What scientist belongs in the empty box? |  |
| 3. What is the name of the scientist who:  a. looked at animal cells  b. looked at plant cells |  |
| 4. Where are nucleic acids found? |  |
| 5. \_\_\_\_\_\_\_\_\_\_\_\_\_ make up the macromolecule carbohydrate. |  |
| L**esson 2** | |
| 6. Explain the function of the cell membrane. |  |
| 7. Which organelle is necessary for photosynthesis to occur? |  |
| 8. Describe the main difference between a prokaryotic cell and a eukaryotic cell. |  |
| 9. What is the difference between the rough endoplasmic reticulum and smooth endoplasmic reticulum? |  |
| 10. Plant cells that are long and hollow will transport \_\_\_\_\_ and water throughout the plant. |  |
| **Lesson 3** | |
| 11. Describe:  Passive transport-  Active transport- |  |
| 12. Materials enter and leave the cell through openings in its \_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_. |  |
| 13. Describe osmosis. |  |
| 14. What is being shown in each diagram:  active transport, diffusion, osmosis, equilibrium, exocytosis |  |
| **Lesson 4** | |
| 15. What substance is released during photosynthesis? |  |
| 16. Which form of energy is necessary in photosynthesis? |  |
| 17. What process is being shown below:  https://www.learner.org/courses/chemistry/images/lrg_img/PhotosynthesisEquation.jpg |  |
| **Matching** | |
| A. cell membrane C. cytoplasm E. golgi bodies G. nucleus  B. vacuoles D. cell wall F. mitochondria H. organelles  \_\_\_\_ 1. Organelles that store food, water, and waste material  \_\_\_\_ 2. Protective layer around all cells  \_\_\_\_ 3. Where the energy in food is stored until it is released  \_\_\_\_ 4. Protects the cells of plants  \_\_\_\_ 5. Flattened membranes that package proteins  \_\_\_\_ 6. Gelatinlike material inside cell membrane  \_\_\_\_ 7. Structures within the cytoplasm of eukaryotic cells  \_\_\_\_ 8. Directs all the activities of the cell |  |