**Students can pick from the following options:**

1. Plant Cell 3-dimensional model with structure and function
2. Plant Cell diagram with structure and function
3. Plant Cell analogies with structure and function

**Scoring Rubric as follows:**

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| **Category** | **Points Available** | **Points Earned** |
| Plant Cell diagram, 3D model, or analogies **completed** | 20 points (Must have cell membrane, cytoplasm, and cell wall) | /20 |
| **Organelles**/Cell Parts identified | 5 points each, up to 7 different organelles | /30 |
| **Function** for each organelle/cell part | 5 points each, up to 7 different organelles | /30 |
| **Description of the whole cell** in your own words | 10 points | /10 |
| Explanation of **how the structure of the cell relates to the function** | 10 points | /10 |
| **TOTAL POINTS** | | /100 |

**For the model** – use easy to find supplies to design a 3D model of a plant cell, then identify each organelle/cell part and describe the function of each part. Then describe the structure of the whole cell and how its structure relates to its function.

**For the diagram** – design a plant cell and draw a picture of the cell, then identify each organelle/cell part and describe the function of each part. Then describe the structure of the whole cell and how its structure relates to its function.

**For the analogies** – Demonstrate your understanding of the cell and its parts by completing an analogy. Select one of the following systems to compare to a cell: specific sport, school, factory, city, space station, human body, or country.

**Analogy Sentence Frame:** A cell is like a **\_\_\_\_(select one of the systems)\_\_\_\_** because the **\_\_(identify a part of the selected system)\_\_\_\_** of the **\_\_(system)\_\_** acts like the **\_\_(identify a cell part)\_\_** by **\_\_(identify the function of the system part that acts like this cell part)\_\_\_.**

***Example System: Football***

***Example Analogy:*** *A cell is like a* ***football team*** *because the* ***coach*** *of the* ***team in football*** *acts like the* ***nucleus*** *of the cell by* ***controlling the actions of the team****.*

**Cell Analogies**

System to compare the cell to: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| 1. A cell is like a **\_\_\_\_\_\_\_\_\_\_\_\_\_** because the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** of the **\_\_\_\_\_\_\_\_\_\_** acts like the **\_\_\_\_\_\_\_\_\_\_\_\_** by **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.** |
| 2. A cell is like a **\_\_\_\_\_\_\_\_\_\_\_\_\_** because the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** of the **\_\_\_\_\_\_\_\_\_\_** acts like the **\_\_\_\_\_\_\_\_\_\_\_\_** by **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.** |
| 3. A cell is like a **\_\_\_\_\_\_\_\_\_\_\_\_\_** because the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** of the **\_\_\_\_\_\_\_\_\_\_** acts like the **\_\_\_\_\_\_\_\_\_\_\_\_** by **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.** |
| 4. A cell is like a **\_\_\_\_\_\_\_\_\_\_\_\_\_** because the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** of the **\_\_\_\_\_\_\_\_\_\_** acts like the **\_\_\_\_\_\_\_\_\_\_\_\_** by **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.** |
| 5. A cell is like a **\_\_\_\_\_\_\_\_\_\_\_\_\_** because the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** of the **\_\_\_\_\_\_\_\_\_\_** acts like the **\_\_\_\_\_\_\_\_\_\_\_\_** by **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.** |
| 6. A cell is like a **\_\_\_\_\_\_\_\_\_\_\_\_\_** because the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** of the **\_\_\_\_\_\_\_\_\_\_** acts like the **\_\_\_\_\_\_\_\_\_\_\_\_** by **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.** |

Describe the function of the whole cell and how structure of the plant cell helps the function of the cell below:

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