

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Answer Key: Super Small Secrets: Cell Structure Safari for 5th Grade

Identify the basic parts of plant and animal cells to build a strong foundation for future biology studies.

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**1. Which part of the cell acts like a 'security guard' by deciding what can come in and what must stay out?**

**Answer:** A) Cell Membrane

The cell membrane is a protective outer layer that controls the movement of materials like nutrients and waste into and out of the cell.

**2. The nucleus acts as the 'brain' of the cell because it contains the instructions for how the cell works.**

**Answer:** A) True

The nucleus holds the cell's genetic material (DNA), which directs all cellular activities, much like a brain directs a body.

**3. Known as the 'powerhouse' of the cell, the \_\_\_\_\_ creates energy so the cell can do its job.**

**Answer:** B) Mitochondria

Mitochondria are responsible for cellular respiration, which is the process of turning nutrients into energy the cell can use.

**4. If a cell was a factory, which organelle would be the 'shipping department' that packages materials to be sent away?**

**Answer:** C) Golgi Apparatus

The Golgi apparatus modifies, sorts, and packages proteins and lipids to be delivered to other parts of the cell or outside of it.

**5. Lysosomes are like 'trash collectors' because they help break down waste products inside the cell.**

**Answer:** A) True

Lysosomes contain digestive enzymes that break down waste materials and cellular debris, effectively cleaning the cell.

**6. The jelly-like substance that fills the space inside the cell and keeps organelles in place is the \_\_\_\_\_.**

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**Answer:** C) Cytoplasm

Cytoplasm is the thick fluid that fills the cell and surrounds the organelles, providing a medium for chemical reactions.

**7. Which organelle is responsible for building proteins, like a tiny construction worker?**

**Answer:** B) Ribosome

Ribosomes are the sites where proteins are made, which are essential for building and repairing cell structures.

**8. In a plant cell, the \_\_\_\_\_ is a stiff outer layer that provides shape and support, unlike in animal cells.**

**Answer:** C) Cell Wall

The cell wall is a rigid layer found outside the cell membrane in plants that provides structural support and protection.

**9. The Endoplasmic Reticulum (ER) acts like a 'highway' to transport materials from one part of the cell to another.**

**Answer:** A) True

The ER is a network of membranes that helps transport proteins and other molecules throughout the cell.

**10. Which organelle acts as a storage tank, holding water, food, or waste for the cell?**

**Answer:** A) Vacuole

Vacuoles are sac-like structures used by the cell for storage. Plant cells typically have one large central vacuole.