

Name: _____ Date: _____

5th Grade Cell City Mission Quiz

Examine cellular structures by troubleshooting why specific organelles fail and comparing their jobs to a busy town's essential services.

1. Imagine you are looking at a plant cell through a microscope. You see a large, central storage space for water and nutrients. What is this 'storage tank' called?

- A. The solar panel
- B. The vacuole
- C. The ribosome
- D. The cell wall

2. The cell wall is found in both plant cells and animal cells to provide a stiff, outer protection.

- A. True
- B. False

3. A cell that is very active, like a wing muscle in a hummingbird, would likely have a high number of _____ to produce enough energy.

- A. Mitochondria
- B. Nuclei
- C. Chloroplasts
- D. Lysosomes

4. If a cell were a busy restaurant, which organelle would act like the 'Head Chef' who holds the secret recipes and tells everyone what to do?

- A. The Cytoplasm
- B. The Golgi Apparatus
- C. The Nucleus
- D. The Mitochondria

5. Chloroplasts are the organelles responsible for turning sunlight into food during photosynthesis.

- A. True
- B. False

6. The jelly-like substance that fills the space inside the cell and keeps all the organelles in their place is known as the _____.

- A. Cell Membrane
- B. Chlorophyll
- C. Cytoplasm
- D. Endoplasmic Reticulum

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7. Which organelle is responsible for packaging and shipping proteins to different parts of the cell, much like a local post office?

- A. Golgi Apparatus
- B. Lysosome
- C. Ribosome
- D. Vacuole

8. The cell membrane acts like a security guard by choosing which materials can enter or leave the cell.

- A. True
- B. False

9. If a cell cannot break down its waste and starts to get 'cluttered' with old parts, which organelle is likely not working properly?

- A. The Nucleus
- B. The Lysosome
- C. The Chloroplast
- D. The Ribosome

10. Ribosomes have the very important job of making _____, which are the building blocks for almost everything in your body.

- A. Sugar
- B. Oxygen
- C. Proteins
- D. DNA