

Name: _____ Date: _____

Tiny Architect's Blueprint: Pre-K Cell Creation Challenge

Construct original cellular systems and predict organelle interactions by designing healthy city-models of microscopic life.

1. Imagine you are building a 'Tiny City' cell. If the Cell Membrane is like a city wall, which of these would happen if the wall had no doors?

- A. The cell would grow bigger and bigger
- B. No food (nutrients) could get inside
- C. The cell would turn into a plant
- D. All the organelles would start singing

2. True or False: If the Nucleus (the Brain) tells the cell to make a copy of itself, the cell will start to divide and grow.

- A. True
- B. False

3. If a cell is like a busy kitchen, the Ribosomes are like the ____ that follow recipes to make protein snacks.

- A. Shiny refrigerators
- B. Tiny chefs
- C. Broken chairs
- D. Vacuum cleaners

4. You are designing a super-fast muscle cell for a cheetah. Which organelle do you need to add extra of to provide enough running energy?

- A. Mitochondria (The Battery)
- B. Lysosomes (The Trash Can)
- C. Chloroplasts (The Sun-Catchers)
- D. Water droplets

5. True or False: The Golgi Apparatus works like a post office to package up proteins and send them to the right places.

- A. True
- B. False

6. In our cell city, the Lysosome acts like a ____ because its main job is to break down waste and keep the cell clean.

- A. Garden hose
- B. Recycling truck
- C. Street light

Name: _____ Date: _____

D. Library book

7. If a plant cell refuses to stand up straight, it might be because its 'water balloon' part (the Vacuole) is empty. What does the plant need?

- A. A nap
- B. More sunlight
- C. A drink of water
- D. New shoes

8. True or False: The Endoplasmic Reticulum (ER) is like a slide or a highway that helps move things around inside the cell.

- A. True
- B. False

9. If the Nucleus goes on vacation and leaves no instructions, the cell will stop _____ and cannot make a copy of itself.

- A. Sleeping
- B. Floating
- C. Growing
- D. Screaming

10. A cell needs to move away from something scary! Which organelle provides the 'vroom-vroom' energy for this movement?

- A. The Golgi Body
- B. The Mitochondria
- C. The Cell Wall
- D. The Cytoplasm