Name _________________________ Class ______________________

Unit 4: Structure and Function Study Guide

You will be able to use your organelle and cell theory foldables on the test. Make sure that they are complete and glued in your notebook.

- Hard copies of both foldables are available in class
- Notes to complete foldables are available at http://tinyurl.com/hmvfj4r (Look for 12/15 and 1/6 Nearpods)

With the help of the Organelle Foldable, you should be able to:

- Like in your cell analogy project, you will be asked to relate 3 cell organelles to parts of your choice of 3 different places/things.
- Match organelles to their functions and answer true/false questions about cell organelles.
- Identify organelles that plant cells have that animal cells do not and explain why plant cells would need them and why animal cells wouldn't.
  Part 1: Chloroplast Why do plant cells need them? to make their own food
  Part 2: Cell wall Why do plant cells need them? for support (so plants can stand)
- Look at the cells. Are there organelles in plant cells that look REALLY different in plant cells than in animal cells? Why?
  Vacuoles are large in plant cells - they need to store more nutrients because they don't move
- (From our diffusion lab, our project, and foldable): Cells are surrounded by a selectively permeable cell membrane. What does this do for cells?
  Keeps necessary things in and some bad stuff out

With the help of the Cell Theory Foldable, you should be able to:

- Show how prokaryotic and eukaryotic cells are different.
  Eukaryotic cells have a true nucleus and membrane-bound organelles, prokaryotic cells don't.
  Animal/Plant cells are eukaryotic, bacteria are prokaryotic
• Using the organization of cells, arrange a list of items from smallest to largest.

Sample:
• stomach cells
• stomach
• digestive system

\[ \text{stomach cells} \rightarrow \text{stomach tissue} \rightarrow \text{stomach} \rightarrow \text{chicken} \]