

Work Hard – Get Smart – No Excuses.

Exploring Cells!!

Objectives:

I can understand the relative sizes of objects, including the cell.

I can sketch and identify the function of cell structures.

I can compare eukaryote to prokaryote cells.

I can compare plant and animals cells.

Activity 1: Go to <http://learn.genetics.utah.edu/content/cells/scale/>

Directions: Zoom in and out into the *Microscopic World* and explore the relative size of things!

Answer the following questions:

- 1) Which is bigger - *grain of rice* or an *Amoeba*? _____
- 2) Which is bigger - an *Ameoba* or a *paramecium*? _____
- 3) Which is bigger - a *skin cell* or a *paramecium*? _____
- 4) Which is bigger - *blood cell* or a *bacteria*? _____
- 5) What is the second to smallest thing? _____ Does it surprise you how tiny this is? _____

Activity 2: go to the website: www.cellsalive.com

Click on the green words “interactive plant & animal cells”

Directions: Click through each of the **ORGANELLES** and read their descriptions.

Remember – ORGANELLES are the little structures that make up cells and they each have a specific purpose in the cell. Use the information to answer the questions.

1. What do the **mitochondrion** do for the cell that is so important???
2. What does the **nucleus** do for the cell? (Read the second paragraph!)
3. What is **cytosol** and **Cytoplasm**??
4. What do the **vacuoles** do for the cell? Which body system is are the vacuoles similar to?

Scientist's Name: _____

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5. Click **Cell Wall** – what does it tell you?

6. Click **chloroplasts** – what does it tell you?

Next, go to the **Plant Cell**. Things like plants, trees, and even lettuce and tomatoes are made of plant cells, wow!!!

1. Click **chloroplasts**. The chloroplasts contain the plant's _____ that are responsible for the plant's _____ and ability to absorb _____.

2. Why do you think plant cells need **chloroplasts** and animal cells do not?

3. Click **Cell Wall**. The cell wall provides and maintains the _____ of these _____ and serves as a _____.

4. Why do you think plant cells need **cell walls** and animal cells do not?