

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](http://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?

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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?