

## Cell WEBQUEST: An interactive journey into the cell!

Answer the following questions. You do not have to answer these questions in complete sentences, but your answers should be complete with details and information!

- Go to: <http://askabiologist.asu.edu/research/buildingblocks/cellparts.html>
- 1) How many different kinds of cells are in your body? \_\_\_\_\_
  - 2) What parts of our bodies are made of dead cells? \_\_\_\_\_
  - 3) The control center of the cell, containing DNA “housed” in chromosomes is the \_\_\_\_\_.
  - 4) The structure responsible for making ribosomes is the \_\_\_\_\_.
  - 5) \_\_\_\_\_ are organelles that help in the synthesis of proteins.
  - 6) The organelle responsible for sorting and correctly shipping the proteins produced in the ER is the \_\_\_\_\_.
  - 7) The cell’s “powerhouse”, making ATP for the cell, is the \_\_\_\_\_.

**Isn't this so fun and easy, how it's all going in order and all?! ☺**

- 8) The organelle in which photosynthesis takes place is the \_\_\_\_\_.
- 9) \_\_\_\_\_ are the transport and delivery vehicles for the cell.
- 10) \_\_\_\_\_ is the term for ALL the contents of a cell other than the nucleus.
- 11) In addition to cell membranes, plants have \_\_\_\_\_ made of cellulose.

Go to:  
[http://www.wiley.com/legacy/college/boyer/0470003790/animations/cell\\_structure/cell\\_structure.htm](http://www.wiley.com/legacy/college/boyer/0470003790/animations/cell_structure/cell_structure.htm)

- Click on “Animal Cell” Read the text and follow the directions. (Click on each organelle and read about what it does)
- 12) Name and define 3 of the organelles that we are learning about.
    - a)
    - b)
    - c)
- Click “continue” and answer the “Pop-up Questions.” When you are finished, click on “Plant cell” and read the text.

14) Name an organelle that you see in the plant cell that you did not see in the animal cell. \_\_\_\_\_

15) Why do you think an animal cell does not have the part that you name in #14?

- go to [http://www.cellsalive.com/cells/cell\\_model.htm](http://www.cellsalive.com/cells/cell_model.htm) and go to "Plant Cell" first.
- Click around the plant cell and look/read about some other organelles. Then, click on the "Animal Cell." Click on the different parts and read about them.

16) Why is the rough endoplasmic reticulum so "rough?"

17) Think about your house or apartment. What part of your home would be like the mitochondria of the cell? Why?

- Go to the left column of the page and click on "Cell Biology" and go to "How big?..." and click on "Start the Animation"

18) How big is a blood cell? How does its size compare to Dust Mites, and then to the E. coli bacteria?

- Go to [http://www.wiley.com/legacy/college/boyer/0470003790/animations/cell\\_structure/cell\\_structure.htm](http://www.wiley.com/legacy/college/boyer/0470003790/animations/cell_structure/cell_structure.htm) and click on "Construct a cell" First, construct an animal cell.

19) Name a part that does NOT BELONG in the animal cell \_\_\_\_\_

20) Construct the plant cell next. Name a part that DOES BELONG here but didn't belong in one of the other 2 cells.

- **Cell Disorders and Diseases... Go to** [http://www.umdf.org/site/c.otJVJ7MMIqE/b.5692879/k.3851/What\\_is\\_Mitochondrial\\_Disease.htm](http://www.umdf.org/site/c.otJVJ7MMIqE/b.5692879/k.3851/What_is_Mitochondrial_Disease.htm)

21) Name one effect of mitochondrial disease? \_\_\_\_\_

- Go to [http://www.pompe.com/patient/learning/pc\\_eng\\_pt\\_lsds.asp](http://www.pompe.com/patient/learning/pc_eng_pt_lsds.asp)

22) What organelle does "Pompe Disease" affect in the cell? \_\_\_\_\_

### **Games and Activities...**

- <http://www.sheppardsoftware.com/health/anatomy/cell/index.htm> and take the quiz for animal cells and plant cells
- <http://www.cellsalive.com/puzzles/index.htm> and complete jigsaw puzzles