

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? _____

- Go to:
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)

3) 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.

4) Which organelle in the plant cell would mainly help the cell take in water or get rid of water, just like the potato did? This is also known as “osmosis.” How do you know that this organelle would help with that process?

5) Which organelle, if empty, would cause the plant to wilt? Why is this?

6) Name an organelle that you see in the plant cell that you did not see in the animal cell.

7) Why do you think an animal cell does not have the part that you name in #6?

- 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.

8) Why is the rough endoplasmic reticulum so “rough?”

9) Think about your house, condo 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”

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

- Go to the left column of the page and click on “Mitosis.” Watch this animation.

11) Which of the 8 characteristics of life is the cell doing here?

- Go back to:
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.

12) Name a part that does NOT BELONG in the animal cell (as you figured out during construction)

13) 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

14) How is a person’s life affected by mitochondrial disease?

- Go to http://www.pompe.com/patient/learning/pc_eng_pt_lsds.asp

15) What organelle does “Pompe Disease” affect in the cell, and how does this disease affect someone’s life?

Games and Activities...

- <http://www.tvdsb.on.ca/westmin/science/sbi3a1/Cells/cellquiz.htm> and try this quiz!
- <http://www.cellsalive.com/puzzles/index.htm> and try the word puzzles at the bottom of the page!
- <http://webinstituteforteachers.org/~halliepeskin/2003/activity3.html> plant cell labeling
- <http://webinstituteforteachers.org/~halliepeskin/2003/activity4.html> animal cell labeling
- <http://darwin.nmsu.edu/~molbio/cellgame/cellpin.html> animal cell labeling
- <http://darwin.nmsu.edu/~molbio/cellgame/CellGamePlant.html> plant cell labeling

- <http://science.nhmccd.edu/BIOL/biolab/cell.htm> animal cell labeling0