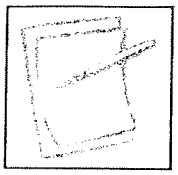

Cell Functions

Exploring Mitosis

http://www.biology.arizona.edu/cell_bio/tutorials/cell_cycle/main.html

This activity will help you further explore and visualize the important cell function mitosis.

1. Point your browser to the address above, and read the introductory information there. Then click on the Next button.

2. Read the available information on DNA and chromatin. How is chromatin different during mitosis than it is during the cell's interphase (that is, when the cell is not in the process of dividing)?

3. Go to the Next screen, and read the first paragraph describing the **cell cycle.** What are the four phases that a cell goes through? What is special about the "S" phase?

4. Do not read *Regulation of Cell Cycle*. Go to the Cell Biology screen. Scroll down to *Activities* and click on On-line Onion Root Tip.

5. Read through the introduction and notice the animation of mitosis. Click on the Next Screen and read the descriptions of the phases of mitosis. For each phase, write down some of the key changes that occur in the cell during that phase.

Interphase

Prophase

Metaphase

Anaphase

Cell Functions

Exploring Mitosis Further

http://www.biology.arizona.edu/cell_bio/tutorials/cell_cycle/main.html

Telophase

Cytokinesis

6. Click on the Next screen. This activity will help you recognize cells from an onion root tip in their different phases of mitosis. Enter the total number of cells and total percentage of cells on the table below.

7. Click on the Next screen and work through all 36 cell classifications, and calculate the percentage of cells in each phase of mitosis. Write your answers in the table below.

If you get done early:

- Go back to Cell Biology and click on The Cell Cycle & Mitosis. Go through 3 screens or so to view Mitosis Animation step-by-step.
- Go back to Cell Biology and scroll down to *WWW Resources*. Click on the Cells Alive! Website.

	Interphase	Prophase	Metaphase	Anaphase	Telophase	Total
Number of cells						
Percentage of cells						