

Name _____

Mitosis Webquest

Task

Go to the web sites listed to learn about mitosis. Complete the activities or questions that go with each site. You are going to complete several activities.

Through these activities, you will learn what happens in cell division.

PART A: Cell Growth and Mitosis

Please go to the following webpage:

<http://plaza.ufl.edu/alallen/pgl/modules/rio/stingarees/module/index.html>

1. What is the role of the cell membrane in cell division?

2. What is the role of the nucleus in cell division?

3. What is the role of the centrioles in cell division?

4. What is the role of the microtubules in cell division?

Click on the tab, "Why Must Cells Divide?"

5. Why are cells limited in size?

6. *Click on the animation.* A cell with 2cm sides has what surface area? _____
What volume? _____

7. What would be the surface to volume ratio?

8. A cell with a large volume will have a more difficult time doing what?

Click on the tab, "The Functions of Mitosis"

9. What are the 2 major functions of mitosis?

10. _____

Click on the tab, "Built-in Controls in Mitosis"

11. What are the 2 ways that cells "know" to stop dividing?

12. _____

Part B : Cell Cycle



<http://www.cellsalive.com> click “Cell biology” in the left frame; and then click Mitosis. Push play. You can stop the animation at any stage to read and draw. Fill in the chart.

Stage	Description	Picture
Interphase		
Prophase		
Metaphase		
Anaphase		
Telophase		

Part C : Cell Cycle

Visit the “Cell Cycle and Mitosis Tutorial” website at http://www.biology.arizona.edu/cell_bio/tutorials/cell_cycle/main.html

Click on Mitosis. Read the pictures, and run the animation. Then fill in the chart below.

1. List the stages of mitosis

2. Which stage does the following occur

Chromatin condenses into chromosomes

Chromosomes align in center of cell.

Longest part of the cell cycle.

Nuclear envelope breaks down.

Cell is cleaved into two new daughter cells.

Daughter chromosomes arrive at the poles.
