

Mitosis and Meiosis Webquest

Name: _____ Date: _____ Core: _____

Objective: In this activity, you will use the following web pages to examine the processes of mitosis and meiosis. Both of these processes are important in homeostasis as well as human reproduction.

PART A: Cell Growth and Mitosis

Please go to the following webpage: <http://plaza.ufl.edu/alallen/pgl/modules/rio/stingarees/module/index.html>

Click on the tab, "What Does Mitosis Do?"

1. What are the 2 major functions of mitosis? _____

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

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

Please go to the following webpage: <http://www.accessexcellence.org/RC/VL/GG/mitosis.php>

3. Label the steps of mitosis on your paper using the graphic.

PART B: Meiosis

Please go to the following webpage: <http://www.sumanasinc.com/webcontent/animations/content/meiosis.html>

4. What is the purpose of meiosis? _____

Start the ***step through*** animation.

5. What is the first thing the chromosomes do? _____

6. Crossing over occurs in Prophase I. What effect does that have on the cells? _____

7. When the cells divide again, what happens to the number of chromosomes? _____

Please go to the following webpage about Meiosis <http://www.accessexcellence.org/RC/VL/GG/meiosis.php>

8. Label the steps of Meiosis on your paper using the graphic.

PART C: Comparing and Contrasting Mitosis and Meiosis

After visiting the following web pages, compare and contrast mitosis and meiosis.

Cells Alive: Mitosis (<http://www.cellsalive.com/mitosis.htm>) vs. Meiosis (<http://www.cellsalive.com/meiosis.htm>)

Animations: Mitosis (<http://www.stolaf.edu/people/giannini/flashanimat/celldivision/crome3.swf>) vs. Meiosis (<http://www.stolaf.edu/people/giannini/flashanimat/celldivision/meiosis.swf>)

Comparison: Mitosis vs. Meiosis (<http://www.pbs.org/wgbh/nova/baby/divide.html#>)

Comparison picture: Mitosis vs. Meiosis (<http://www.accessexcellence.org/RC/VL/GG/comparison.php>)

Then, draw and fill in the Venn Diagram, for Mitosis and Meiosis characteristics, and the overlap is for the characteristics they have in common. Use the terms listed above the diagram. You can add other characteristics, too!

Terms:

Results in cells with the same Chromosome number

One part to cell division

4 Sex cells

Crossing over takes place

2 Body cells

Ways cells reproduce

Results in cells with half the number of Chromosome

Two parts to cell division (I and II)

Same names in phases

Mitosis

Meiosis

