

Name _____

Ms. Simon
CP Biology

Mitosis Web Quest

In this web quest, you will review the steps of mitosis and view video simulations of cell division. You will also view an onion root tip and calculate the percentage of cells at each of the stages of cell division. Go to <http://www.cellsalive.com/> . On the left side of the screen is a navigation bar, click on the link to "MITOSIS." Read the text on this page and view the animation – you can slow down the video by clicking step by step through the phases.

1. In which stage does the following occur:

Chromatin condenses into chromosomes _____

Chromosomes align in the center of the 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 _____

Chromatids are pulled apart _____

2. Watch the video carefully! The colored chromosomes represent chromatids.

There are two of each color because one is an exact duplicate of the other.

How many chromosomes are visible at the beginning of mitosis? _____

How many are in each daughter cell at the end of mitosis? _____

The little green T shaped things on the cells are _____

What happens to the centrioles during mitosis? _____

3. Identify the stages of these cells:

4. Go to www.johnkyrk.com/mitosis.html . Draw a cell in each of the following phases:

<u>Prophase</u>	<u>Metaphase</u>	<u>Telophase</u>

5. Go to http://www.biology.arizona.edu/cell_bio/activities/cell_cycle/cell_cycle.html . Read the introduction, then click the “next” button. You will have 36 cells to classify. When you’re finished record your data in the chart below. Round to whole numbers. (To calculate percent: divide the number of cells by the total cells x 100)

	Interphase	Prophase	Metaphase	Anaphase	Telophase	Total
# of Cells						
% of Cells						

6. Go to <http://www.biologycorner.com/flash/mitosis.html> . For each organism, identify the stage of mitosis.

	View 1	View 2	View 3	View 4	View 5
Whitefish					X
Onion					