Mitosis Web quest

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?

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

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

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

*Click on the tab, “Why Must Cells Divide?”*

6. Why are cells limited in size?

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*Click on the animation*

7. A cell with 2cm sides has what surface area? \_\_\_\_\_\_\_\_\_

What volume? \_\_\_\_\_\_\_\_\_\_\_\_\_\_

8. What would be the surface to volume ratio?

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

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*Click on the tab, “The Functions of Mitosis”*

10.What are the 2 major functions of mitosis?

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*Click on the tab, “Built-in Controls in Mitosis”*

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

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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.

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| --- | --- | --- |
| Stage | Description | Picture |
| Interphase  |  |  |
| Prophase  |  |  |
| Metaphase  |  |  |
| Anaphase |  |  |
| Telophase |  |  |