What is Cell Division?

1.

How Do Prokaryotic Cells Reproduce?

1.



How Do Eukaryotic Cells Reproduce?

**CELL CYCLE!**

1.

**The Cell Cycle Consists of Two Phases – INTERPHASE AND MITOSIS**

PART 1 – INTERPHASE

1. Interphase =

\_\_\_\_\_\_\_\_\_\_\_ - Time when cell grows to full size

\_\_\_\_\_\_\_\_\_\_\_ - Time when cell replicates DNA

\_\_\_\_\_\_\_\_\_\_\_ - Time when cell duplicates its organelles

\_\_\_\_\_\_\_\_\_\_\_ - Time when cell leaves the cycle (Not all cells do this! – Example = nerves)

**How is Cell Division Controlled???**

|  |  |
| --- | --- |
| Control Occurs at 3 Main Checkpoints* Macintosh HD:private:var:folders:88:ljfh4vns3_v7j9v718gqsv3s12f5t0:T:TemporaryItems:maxresdefault.jpg
*
 | **What happens when the control is lost?** |

PART 2 – MITOSIS (M - Phase)

5.

The Two Parts of Mitosis

6.

|  |  |  |
| --- | --- | --- |
| The Result of Mitosis | Why Does Mitosis Happen? | How Long Does Mitosis Take? |

**STAGES OF MITOSIS**

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**Prophase –** The “Prepare” Phase

**Metaphase –** The “Middle” Phase

**Anaphase** The “Away” Phae

**Telophase** The “End” Phase

****

**Cytokinesis – The Cytoplasm Divides in 2!**

|  |  |
| --- | --- |
| **Plants** |  **Animals** |

**DNA Structure**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Chromatin** | **Chromosome** | **Centrioles** “Tow Truck” | **Diploid (2n)** | **Haploid (1n)** |
|  |  |  |  |  |