**Amoeba Sisters: Mitosis**

**https://www.youtube.com/watch?v=f-ldPgEfAHI**

1. Mitosis is a type of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What type of cells does Mitosis produce?
3. How do cells made in Mitosis resemble each other?
4. **In the table below** write the 3 things that happen during Interphase in the “Description” section for Interphase.
5. On average cells spend \_\_\_\_\_\_\_% of their time in Interphase and \_\_\_\_\_\_\_% of their time in Mitosis.
6. What cell organelle contains your DNA?
7. DNA are condensed into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Humans have \_\_\_\_\_\_ Chromosomes.
8. **Complete the table below** for the stages of Mitosis by writing the description of each stage and drawing a picture of what the stage looks like.

|  |  |  |
| --- | --- | --- |
| **Cell Cycle Stage** | **Description** | **Picture** |
| **Interphase** |  |  |
| **Mitosis:****Prophase** |  |  |
| **Mitosis:****Metaphase** |  |  |
| **Mitosis:****Anaphase** |  |  |
| **Mitosis:****Telophase** |  |  |
| **Cytokinesis** |  |  |

1. What disease is caused by cells that are dividing out of control?



**What is a Chromosome?**

<http://learn.genetics.utah.edu/content/basics/oldtour/>

* If you stretched the DNA from a cell out, how long would it be? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* The packaging of \_\_\_\_\_\_\_\_\_\_\_ into a chromosome is done in several steps, starting with the \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ of DNA. Then the DNA is wrapped around some proteins.
* These proteins are packed tightly together until they form a \_\_\_\_\_\_\_\_\_\_\_. Chromosomes are efficient \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_ for DNA.
* What are the sex chromosomes called? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* How many chromosomes are in

 a human cell? \_\_\_\_\_\_\_\_\_\_\_

in a mosquito? \_\_\_\_\_\_\_\_

 a carp? \_\_\_\_\_\_\_\_\_

**Structure of a Chromosome:**