Mitosis Project Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Purpose: To demonstrate your understanding of a cell going through the process of cell division and mitosis.

Choose one of the following options:

-Mitosis Map: On a sheet of paper, map out the 5 steps of cell growth and division (interphase and mitosis), showing what happens to the cell’s chromosomes at each step. Include the duplication movement of at least 4 chromosomes. Be sure to label each stage and show the important cell structures involved (chromosome, spindle fibers, centromere). Maps must be done on poster paper by hand.

-Mitosis Brochure: Create a trifold brochure explaining cell division. The brochure must highlight all of the stages of cell division and what important events occur in each stage. You may choose to make a travel brochure that invites people to see each exciting stage of cell division. You may use a Word template to create the brochure or you may do it by hand. If done on the computer, Ms. Porter will print it out in color. Make sure that your brochure is neat, colorful, and imaginative! Also, include drawings or pictures for each stage and make sure your information is correct!

Mitosis Rap, Song, or Poem: Put your creativity to use to write a song, rap, or, poem that discusses cell division and mitosis and the actions of the chromosomes at each stage. Your rap, song, or poem will need to be typed/neatly written. You may also record it being performed, or you may perform it in front of the class.

Mitosis Children’s Book: Create a book to show/explain to young children what must happen in order for cells to divide. Remember, children’s books are usually colorful and creative!

Mitosis Game: Create a board or card game that either tests the players’ knowledge of cell division or mimics the process of cell division and mitosis (all stages).

\*\*\* If you have any other ideas to demonstrate your knowledge of mitosis please clear it with Ms. Porter first. Any other ideas are welcome!

Mitosis Project Rubric

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| --- | --- | --- | --- | --- | --- | --- |
| Category | 10  Outstanding | | 7  Pretty Good | 4  Not Bad-But No Prize | | 1  Not So Hot |
| **Content Knowledge** | Student shows thorough knowledge of the five steps of mitosis and the cell structures involved. Student works to go above and beyond the basics.  (10 points each) | | Student shows a basic understanding of the five stages of mitosis and is successfully able to convey what happens at each step.  (7 points each) | Student shows a basic understanding of mitosis, but there are errors in one stage or student fails to present ALL information for ALL steps.  (4 points each) | | Student does not convey knowledge of all steps or the information presented at 2 or more steps is inaccurate.  (1 point each) |
| **Quality** | Project shows imagination and creativity. Student has clearly put thought and hard work into the project. It is neat, easy to read and has no grammar or spelling errors. | | Project shows neatness and completeness. Student has put some thought into it, but perhaps the quality of work could be improved upon or there are a few content errors. | Project is done but creator has not put much thought or effort into completing it OR project shows lack of completion. There are several errors in spelling and grammar. | | Project shows a lack of imagination, thoughtfulness, or effort. It is hastily done or lacks neatness. There may be significant errors in spelling or grammar. |
| **Total Points Earned** | | **\_\_\_\_\_\_\_\_/20** | | | Teacher Comments: | |