

Creative Cell Cycle & Mitosis Assignment

Purpose:

To create an original mitosis project that strengthens knowledge and act as a resource for other students.

Goals:

- Each student will know and understand the stages of the cell cycle and phases of mitosis.
- Each student will be able to appropriately use the proper terminology.
- Group members will work cooperatively together.
- Group members will help each other accomplish the first two goals

Assignment Options:

Keep in mind that the **entire process** of the cell cycle & mitosis needs to be correctly explained using proper terminology. Please remember to also **incorporate** in your project **why** cell division is needed/important.

1. Comic Book Adventures

Create a comic strip that illustrates the characters of mitosis and their activities. You need to be creative when choosing dialogue for each component (think about what the components would say to each other as they move through the phases of mitosis).

4. Video / Animation

For this activity you must create a creative play/movie/animation based on the phases of mitosis and the components involved. For example, each phase could be a different act and each component could be a character or create a Claymation of the entire process. In your script be sure to include a list of the characters. The format for submission is a video file. **MAX 4 minutes**

5. Song

Create a song about each phase of mitosis and the components involved. (Remember that the purpose of these assignments is to share information.) Submission of this must include a recorded MP3 file and typed lyrics.

***ALL OPTIONS REQUIRE THE USE OF THE LIST OF WORDS ON THE NEXT PAGE**

Creative Cell Cycle & Mitosis Assignment Rubric

Name(s):

Project: *Comic book,*

video/animation, song

	4 pts.	6 pts.	8 pts.	10 pts.
Vocabulary Terms	Most of the stages of mitosis were missing terms. There were numerous labeling errors and most terms were not used/described correctly.	The stages of mitosis were missing some terms. Diagrams have some labeling errors and some terms were used/described incorrectly.	Each stage of mitosis had most of the terms needed. Diagrams have minimal labeling errors and most descriptions of terms were correct.	Each stage of mitosis had all the terms needed. Any diagrams were correctly labeled and or terms used and described correctly.
Demonstration of Knowledge	Few stages/events of mitosis were correctly explained.	Some of the stages and/or events of mitosis were correctly explained.	Most of the stages and/or events of mitosis were correctly explained.	All stages of mitosis were included and all the events within each stage were correctly
Preparation	The activity was done poorly or rushed.	The activity was not very thorough and is lacking significant planning.	The activity was thought out and significant is planning evident	The activity was well thought out and extensive planning is evident
Appropriate Style	The activity was created, but poorly and not relative to any of the choices.	The activity was completed in a poor manner relative to style of choice.	The activity was completed in a good manner relative to style of choice.	The activity was completed in an excellent manner relative to style of choice. (Grammar was correct, punctuation, etc.)

Required Terms: (you are not limited to using just these words- feel free to incorporate others):

Interphase	Mitosis	G1/S/G2	Daughter cells
Prophase	Sister chromatids	Spindle fibers	Nuclei
Metaphase	Centromere	Centrioles	Metaphase plate
Anaphase	Chromosome	Nuclear envelope	
Telophase	DNA replication	Cytoplasm	
Cytokinesis	Chromatin	Organelles	