

# Mitosis and Meiosis Project

Name: \_\_\_\_\_

Date: \_\_\_\_\_

DUE: MONDAY, January 9, 2012

Objective:

B.1.1.2 Compare the processes and possible outcomes of mitotic and meiotic nuclear divisions

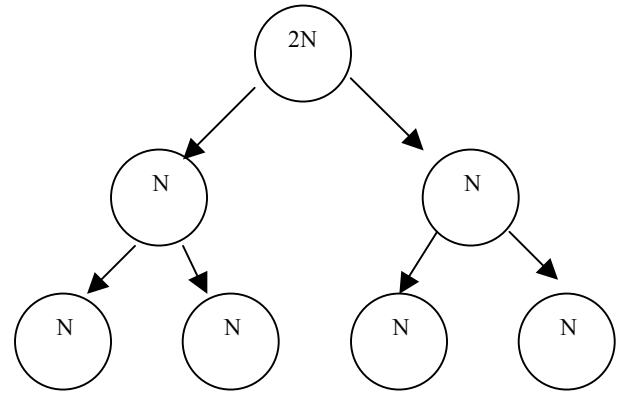
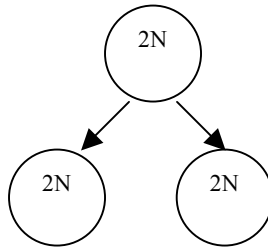
*For this assignment you must create a project that shows the stages of mitosis AND meiosis and describe what happens in each stage. You get to pick what type of project you do, but all projects will be graded on creativity, accuracy, presentation and knowledge. You will choose from the list of ideas provided and once you have determined what you will be doing, you will need to refer to the specific rubric including points for each item of your project.*

## PROJECT CHOICES

- 1. Newspaper article** – Write an article from the point of view of a person living during the discoveries of mitosis and meiosis. You must include the title of the newspaper, date, all the contributors and answer the “who, what, when, where and why” questions. Your article must be supported by pictures with captions, well organized thoughts, correct grammar and content. You must present your article to the class.
- 2. Poem or song** – Write an original poem or song explaining the steps of mitosis and meiosis. The organization of the poem/song must be clear. The poem/song must be descriptive, expressive and creative and must demonstrate an understanding of the concepts. Poems/songs must show correct grammar. For songs, the tune must also be provided. The song/poem must be read/sung to the class via a podcast/garageband.
- 3. Create a model of both mitosis and meiosis** – Demonstrate the steps of mitosis and meiosis visually by creating a model of these processes. The model must be accurate, demonstrate knowledge of the information, and be a creative design. It must be a 3D model and cannot be a poster or drawing on paper. You must explain your model to the class.
- 4. Write a children’s storybook** – Write an original story explaining the steps of mitosis and meiosis. The story must include all the parts of a story including characters, plot, dialogue, vivid descriptions and illustrations. The story must be creative and show correct grammar. The story must be clearly written, illustrated and show an understanding of the concepts. You must create a book to present the story. You must read the book to the class.
- 5. Political cartoon** – You must create a political cartoon strip showing the steps of mitosis and meiosis. The cartoon must include colored drawings and captions. It must be creative and accurate and show an understanding of the concepts. The cartoon must be clean, neat and well organized. You may relate the cartoon to any political activities that have occurred in history. You must share the cartoon with the class.
- 6. Animated FlipBook** – You must create a flip book depicting mitosis and meiosis that will show the stages of each process when flipped. Each page must have a picture (colored, and the colors must be consistent throughout the flip book) as well as a description of what is happening to the key components. At the end of the book, you must write a comparison and contrast of the two processes as they are seen in your flip book.
- 7. Animated Movie** - Create a moving clearly explaining the steps of mitosis and meiosis. It must be creative, accurate and show an understanding of the concepts. Your movie will visually show the steps of both mitosis and meiosis.

ITEMS TO INCLUDE:

- number of cells
- number of divisions
- haploid/diploid
- consistent chromosome number
- use(s)
- type of cells produced
- if daughter cells are genetically identical or different
- advantages of each type
- disadvantages of each type



Possible points	100%	75%	50%	0 to 25%	Points earned
20 pts Knowledge	Project demonstrates a clear understanding mitosis and correctly illustrates each of the phases. It is easy for an observer unfamiliar with mitosis to understand the process.	Project demonstrates a good understanding mitosis and correctly illustrates most of the phases. An observer unfamiliar with mitosis would probably understand the process.	Project demonstrates a limited understanding mitosis and incorrectly illustrates or does not include all phases. An observer would have a difficult time understanding the process.	Project shows little or no understanding of the concepts and does not correctly illustrate any phase. Or project was not done. (0)	
10 pts Presentation	Presentation is clear, thought out, easy to hear, and presenter makes good eye contact.	Presentation is a little quiet, refers too much to reading, doesn't look at audience.	Presentation is hard to hear or see, difficult to understand..	Presentation is very weak, hard to hear, and doesn't demonstrate knowledge of subject.	
20 pts Creativity	Project demonstrates a high level of creativity and originality.	Project demonstrates some creativity and originality, but resembles other projects.	Project demonstrates limited creativity and originality. .	Project shows no creativity or originality. Fact based poster or PowerPoint.	
10 pts On Time	Project was completed on the day due	Project was completed one day late	Project was completed two days late	Project was not completed or passed in more than two days late (0)	
10 pts Neatness	Final project is neat and shows care and time was spent developing it.	Final project shows some carelessness and little time was spent developing it.	Final project shows carelessness and very little time was spent developing it.	Final project is sloppy and looks like it was rushed at the last minute.	