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

**Stop Motion Meiosis**

You will be creating a stop-motion video demonstrating your knowledge of the phases and products of meiosis. For the sake of keeping things simple, you’ll be showing spermatogenesis (NOT oogenesis).

Stop-motion is where you set up stationary scenes, and photograph each one as you make small changes. When played in sequence, stop-motion videos show gradual but smooth movement as you move from frame to frame. For this project, you can just arrange your props on a piece of paper and take pictures as you move the props through each phase of meiosis.

You will need to take **at least** 5 pictures per phase, making small changes between each shot.

List the phases of meiosis below:

How many minimum frames does your stop motion need? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Once you have taken all of your pictures, you will need to turn them into a movie. You can use iMovie, Windows Media Player, or any stop motion apps or websites to help you do this. When you have finished, upload your video to YouTube and send the link to your teacher. Feel free to make your video unique using special effects, music, or anything else you want to. Obviously, music chosen must be appropriate.

You may work on your own or in a group. Groups are to be no larger than 3 people. Each group must use unique materials to create their stop motion. You will also need to submit a write up that includes the following information:

* A written description of what happens in each phase of meiosis.
* A key to the materials used in the video and what they represent.
* After the key, identify the role of each of those organelles in meiosis.

Example:

*Red string: spindle fibers*

*Spindle fibers connect the centromeres of each chromatid to the centrioles, so that chromatids can be pulled to opposite ends of the cell.*

Your group members (if any):

Materials:

|  |  |  |
| --- | --- | --- |
| **Part of Meiosis** | **Materials** | **Who’s Bringing** |
| Nuclear Membrane |  |  |
| Chromatin |  |  |
| Chromatids |  |  |
| Centromeres |  |  |
| Centrioles |  |  |
| Spindle Fibers |  |  |
| Cell Membrane |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Grading:

|  |  |
| --- | --- |
| Write-Up | / 10 |
| Stop-Motion Video | /40 |
| Total | /50 |

Materials need to be brought to class on:

This project is due in class on:

Emails:

Mortensen: Lmortensen@alpinedistrict.org

King: hannahking@alpinedistrict.org