Sci 9 **STOP MOTION MEIOSIS PROJECT 35 pts**

In groups of two or three, create a stop motion animation demonstrating meiosis using play dough and other materials, focusing on cell membrane, nucleus, centrioles, and chromosomes.

**What to do:**

1. Plan with your group who will do what. (playdough manipulation, subtitles, taking pictures).
2. Decide how you will name and describe the phases. If using writing on paper, it must be written CLEARLY and BIG ENOUGH to be read through the camera.
3. Decide what device and program you will use.
4. Plan your steps – YOU WILL HAVE ONE LIBRARY DAY. If you do not finish in class you will complete for homework.
5. Procedure: Include names, and title of your animation.
6. Using available materials, construct a model of a cell starting with INTERPHASE.
7. Take a picture.
8. Make very small changes to your cell to transition from phase to phase.
9. Take a picture.
10. Try to take 5-6 pictures between each phase change while making small changes to your model to transform it into the next stage.
11. Label the name of each phase under, next to or anywhere near your model:

* Interphase – at least 3 things that happen shown and labeled
* Prophase - at least 2 things that happen shown and labelled
* Metaphase -at least 2 things that happen shown and labelled
* Anaphase - at least 2 things that happen shown and labelled
* Telophase – at least 3 things that happen shown and labelled
* Cytokenisis - description of what happens during this process

1. The MORE pictures between stages as you move your cell parts, the better your video will look.
2. Take a minimum of 60 or more pictures of the different stages for Meiosis.
3. Label the stages and important parts of the cell as you are taking your pictures.
4. Upload into Stop-Motion software to create your Stop-Motion video.
5. Continue until you are done with all stages of Meiosis.
6. When finished email your video
7. List Credits: you did what.

**Tips for a better movie:**

* Try and keep camera and zoom in the same spot/position/angle as you take each picture.
* While one of you gets ready to take a picture, the other team member gets going in moving that parts of the cell.
* Be mindful of what else is in the frame to avoid things popping in and out of your video.
* Take more pictures than you need. Experiment if flash or no flash works better.
* Have fun and be creative.

**Analysis Questions (after your pictures are done).**

1. What was the most challenging thing in making your movie?
2. What was the easiest thing to do in making your movie?
3. How could you improve your movie?
4. Thinking about how you worked with your partner(s), what were some of the challenges and successes of working in a group?
5. Why is Meiosis important? In other words, what is the point of cells performing Meiosis?

How you will be graded:

**Content: (12pts)**

Title with group members (1pts)

All phases labelled and explained. (5pts)

All parts labelled (5pts)

Credits: who did what (1pts)

***Effort and Style:***

Movie flows well with enough pictures taken (5 pts)

Continuity (ex: same number of chromosomes throughout, colors, crossing over, etc) ( 5 pts)

Creative and unique (5 pts)

Ontime (1pt)