

Unit 2 Animation Assignment

- 9/25 Film Cell Cycle (interphase and cell division)
- 9/26 Finish Filming Cell Cycle and Submit to Google Classroom
- 9/27 Film DNA and Replication (components and how it replicates)
- 9/28 Submit DNA and Replication Animation to Google Classroom
- 9/29 Film DNA vs. RNA and Protein Synthesis (differences and process of protein synthesis)
- 10/2 Submit DNA vs. RNA and Protein Synthesis Animation to Google Classroom

Working in groups of two, you will create manipulatives and film short informational movie clips about the above topics.

Suggested Materials: Play dough, modeling clay, felt, colored foam sheets, beads, yarn

* Colored paper will be provided. You may choose to complete the project using only colored paper, only your supplies, or a combination of the two.

1. Each of the three sections will be between 30 seconds and 2 minutes long.
2. Refer to your notes and write a script.
3. Create the needed components from your materials. The components should look like the illustrations in your notes/book.
4. Components and processes will have written labels. You may create labels before filming or add them to the final product.
5. You may choose to explain the process as you are filming or add it afterwards. You may present this information as written text or verbally, but I must be able to read it/understand what you are saying. Information should be in your own words, not copied from the notes or book.
6. Film the animation. Information on how to use iMovie can be found on moodle or by searching iMovie instructions on the Internet. You may also use Stop Motion Studio or another similar app.
7. Submit your creations to me on google classroom. Classroom codes may be found on my moodle page. Include the names of both partners. This assignment will be worth 3 daily grades. (One grade for each section.)

Grading Rubric

	Cell Cycle	DNA and Replication	DNA vs. RNA and Protein Synthesis
Components are student-created manipulatives, appear as they do in the book and are labeled appropriately (40)	<ul style="list-style-type: none"> ○ Cell membrane ○ Nucleus ○ Chromatin ○ Chromosomes ○ Spindle fibers ○ Centrioles ○ Interphase ○ Prophase ○ Metaphase ○ Anaphase ○ Telophase ○ Cytokinesis 	<ul style="list-style-type: none"> ○ Nucleotide ○ Nitrogen base ○ Deoxyribose ○ Phosphate Group ○ Adenine ○ Thymine ○ Guanine ○ Cytosine ○ Replication 	<ul style="list-style-type: none"> ○ Nucleus ○ Deoxyribose ○ Ribose ○ Adenine ○ Thymine ○ Uracil ○ Cytosine ○ Guanine ○ Ribosome (rRNA) ○ mRNA ○ tRNA ○ Transcription ○ Translation ○ Protein
Information is accurate, clear and easy to understand. (60)	<p>All phases of the cell cycle are shown in order. (30)</p> <p>What is happening in each phase is explained. (30)</p>	<p>Parts of a nucleotide are shown. (20)</p> <p>Process of replication is shown and explained.(40)</p>	<p>Four Differences between DNA and RNA are shown. (20)</p> <p>Processes of transcription and translation are shown and explained. (40)</p>
Bonus points for creativity and/or excellence (+10)			