

AP Biology Summer Assignment 2023 And AP Biology Assessment material

We are looking forward to a challenging year of AP Biology with you, and would like to take this opportunity to explain the AP Program to each of you so that you might understand what you are getting into and what you might expect. Because this is a college level lab science course, it makes very heavy demands on your time and energy. You will often be responsible for several levels of assignments at the same time. For example, there will be regular reading assignments, labs to write up, articles to read and summarize, and essays to write and major exams.

Since most AP Biology students are taking a full academic load and are involved in extracurricular activities, please be conscious of the time you are allotting to this class. Success in the course will depend on your motivation and maturity, daily attendance and daily study, your ability to read for comprehension and to communicate well in writing, and on your ability to organize yourself and your time. Your priorities are your business.

These assignments are due the first day of school. **NO LATE ASSIGNMENTS/extensions WILL BE ACCEPTED!!!**

The material in this packet will be entered as your first **SUMMATIVE assessments**.

Part 1. You are required to read **ONE** of the following books. Create a book jacket for the book. Illustrate the front with a graphic that expresses the main concept of the book. For the back cover... *Explain how the Scientific method was used to solve the main issue in the book (use **evidence** from the book to **support** your findings)* See details for format.

The Ghost Map : the story of London's most terrifying epidemic--and how it changed science, cities, and the modern world / Steven Johnson

Fuzz, Animals Breaking the Law / Mary Roach

The Demon in the Freezer / Richard Preston

Finding the Mother Tree: Discovering the wisdom of the Forest/Suzanne Simard

The Forest Unseen: A year's watch in Nature/ David George Haskell

The Great Influenza/ John M. Barry

Part 2. Summer Organelle team building exercise. Research your given organelle. Complete the following worksheet. It must be complete for the first day of class

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Book Jacket rubric 2023

Scientific Practices 1

| 4 | 3 | 2 | 1 | 0 |
|--|---|--|---|--|
| <p>Student is able to illustrate in an <i>attractive</i> manner a jacket cover with graphics expressing the main concept of the book. &</p> <p>Student identifies using <i>multiple pieces</i> of evidence from the book showing how the Scientific method was used to solve the main issue in the book</p> <p>&</p> <p>Student followed given directions for book jacket design</p> | <p>Student is able to illustrate a jacket cover with graphics expressing the main concept of the book. &</p> <p>Student identifies using evidence from the book how the Scientific method was used to solve the main issue in the book</p> <p>&</p> <p>Student followed given directions for book jacket design</p> | <p>Student is able to illustrate a jacket cover with graphics expressing the main concept of the book.</p> <p>Student identifies, using evidence from the book, how the Scientific method was used to solve the main issue in the book is <i>partially</i> present and still coherent</p> <p>&</p> <p>Student followed given directions for book jacket design</p> | <p>Student is able to illustrate a jacket cover with graphics expressing the main concept of the book.</p> <p>Student identifies, using evidence from the book, can <i>marginally explain</i> how the Scientific method was used to solve the main issue in the book is present however somewhat incoherent &</p> <p>Student followed given directions for book jacket design</p> | <p>Student is unable to demonstrate the level 1 work</p> |

The Book jacket should be 17" x11". Student must use the Google slides application to create professional looking digital posters and infographics. Follow the attached instructions for how to create a poster.



Type in your dimensions and get creative. Use Google slides CHANGE the dimensions to 17" wide by 11" tall inches

Once you have created your book jacket you can save it as a PDFdocument and upload to Canvas (***you will need to wait until the district opens your canvas portal***).

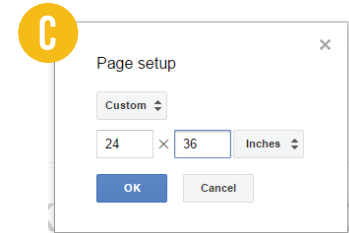
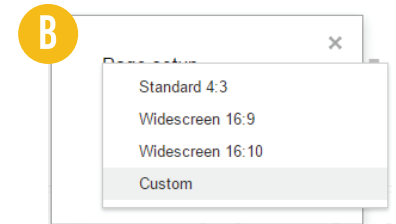
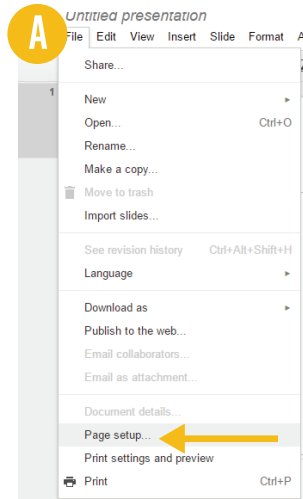
USING GOOGLE SLIDES TO MAKE A POSTER

Slides is Google's version of Microsoft PowerPoint with some Microsoft Publisher mixed in. Follow these steps to start designing a poster.



1. Setting Page Size.

Open up a new presentation on **Google Slides**. Go to File < Page Setup. Click the drop down and then click **Custom**. Change to **24 x 36** inches.



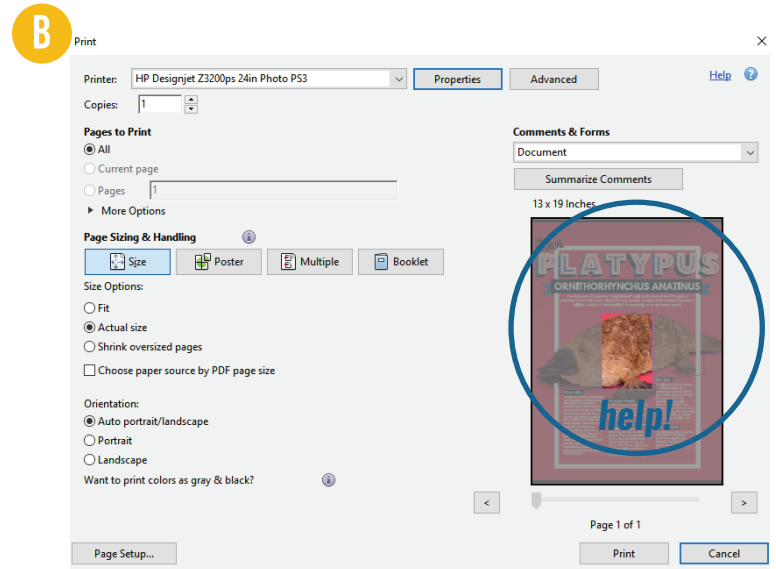
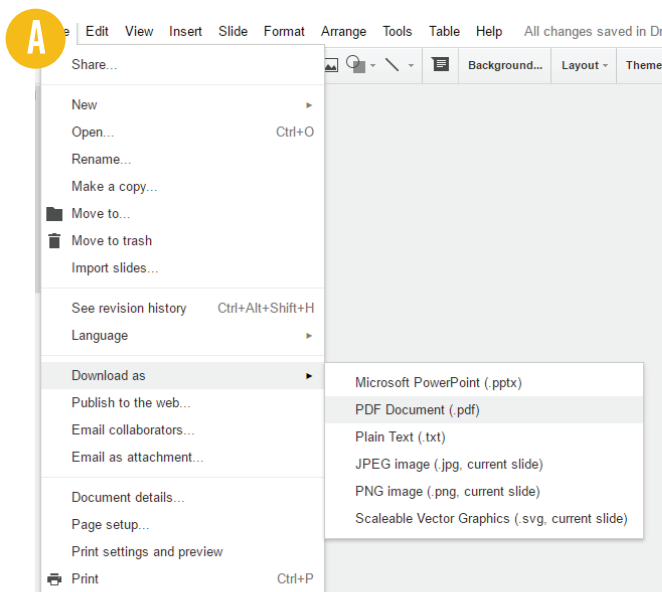
2. Designing Your Poster.

In the toolbar, you have a number of tools to help you design your poster.

- Select tool** lets you click on a shape or text already inserted into your document and move it around.
- Text Box** allows you to draw a rectangular text box anywhere on the document.
- Image** allows you to insert an image saved on your computer or found on the internet.
- Shape and line** commands allows you to draw shapes, lines, or freehand squiggles and pictures on your poster.
- Background...** allows you to change the background to a color or insert a picture from the internet.

3. Printing Your Poster.

We won't be printing directly from Google Slides. First, download your poster as a **PDF Document**. Then open up the PDF in Adobe and hit **File > Print**. Go to Properties, and change the **Page Size to Arch D**. If your entire poster is complete colored in the preview and it does not appear tiled, you're ready to Print. If only a selection of your poster is completely in color in the preview or there are tiles around it, recheck to make sure that the Printer is capable of printing out poster-sized images and that you selected the correct page size.



This needs to be completed for our first day. You will not have class time to complete this!

“CellularMatch.com”

Speed dating for Lonely Organelles

This project is designed to be a creative investigation into the **structure and function** of prokaryotic and eukaryotic organelles. Using the theme of a blind speed date, you will personify the organelle you have been assigned and try to “cell it” (I know, bad joke!) to other “Lonely Organelles”. You should have fun and be creative, while remaining true to an accurate understanding of the material at hand. Find your name...that is the organelle you must investigate and be prepared to personify.

- Nucleus -
- Nucleolus -
- Chromatin/chromosomes -
- Ribosomes -
- Rough Endoplasmic Reticulum -
- Smooth Endoplasmic Reticulum -
- Golgi Apparatus -
- Plasma Membrane -
- Centrosome -
- Centriole -
- Cytoplasm -
- Cytoskeleton -
- Nucleoid -
- Plasmid-
- Mitochondrion -
- Chloroplast -
- Flagellum -
- Cilia -
- Lysosome -
- Peroxisome -
- Secretory Vesicle -
- Plasmodesmata -
- Food Vacuole -
- Central Vacuole -
- Cell Wall -
- Storage Granule -
- Centromere -

YOU are to create a dating profile that hits the highlights of your organelle, plus a few “personal details”. Use the profile sheet. These profiles are due the first day of school and should be completed prior to coming to class. They should be fun, creative and informative.

We are looking for the following on your dating profile.

- A cellfie (sorry, couldn't help it!)
- A theme song (can pick a real song, and change the title to match your theme)
- Pick up line (school appropriate, obviously)
- Trendable hashtag
- Where the organelle can be found (Eukaryotic/prokaryotic/both, plant/animal)
- Function of the organelle to keep the cell alive and healthy
- Bad habit we should know about (what happens if you are defective/missing/etc)

Summer Organelle Profile Sheet

name _____

SYSTEM INTERACTIONS-1

SP-1---Science Explanation:Organelles

| 4 | 3 | 2 | 1 | 0 |
|--|---|---|--|--|
| Student organelle profile sheet includes all of the information required for a 3. Additionally this level <i>requires neatness and exceptional creativity beyond just required.</i> | Student organelle profile sheet includes all the required information: name, structure, complete function, representative illustrations, song title, pickup line, hashtag, eukaryotic (plant-animal) or prokaryotic, what happens if missing or defective. | Student profile sheet is incorrect or missing no more than 1 required components however must include name, location, illustration and function. | Student profile sheet is incorrect or missing more than 2 but less than 5 required components however does include name, illustration, function. | Student unable to provide the minimal required information to receive a 1. |

Organelle Name:

Structure:

Complete function:

Representative illustrations:

Song title:

Pickup line:

Hashtag:

Found in eukaryotic (plant-animal) or prokaryotic?

What happens if missing or defective?