

This project will count for 2 summative grades. This project has 2 main components:

| | |
|---------------------------------|---------------------------------|
| Research paper component | 1st Summative grade |
| Creative presentation component | 2 nd Summative grade |

Research Component Instructions

1. Select a milestone discovery in Biology from the following choices:
 - a. cell theory development
 - b. discovery of the full process of how autotrophs photosynthesize
 - c. discovery of how all organisms make ATP in aerobic cellular respiration
 - d. DNA structure discovery
 - e. discovery of how proteins are made in cells (process of Protein Synthesis)
 - f. how traits are inherited
 - g. discovery of viruses and how they infect cells (Make sure you generalize this for ALL viruses, not just a specific virus!)
 - h. development of our current view of how evolution occurs in a population
 - i. discovery of, and development of antibiotics

GET THIS CHOICE APPROVED BY THE INSTRUCTOR.

2. Research this topic.
 - a. Fully describe the most widely accepted current components of the topic. (For example, if you chose the cell theory, you must describe the 3 main parts of the cell theory, and all it implies.)
 - b. You must uncover a **minimum of 6 scientists** who have contributed to our current understanding of the biological principle you have chosen to investigate, and you **must include the most recent contributor to current understanding** (For example, if you chose DNA structure, you must include Watson and Crick in your research)
 - c. For each scientist, determine: when they did their research, where they were/are from, and what major discovery they made related to the topic chosen.
 - d. Also obtain a picture of them, you may need it to include in the 2nd component of this project
3. Write a paper from your research that includes:
 - a. A full description of the topic – in other words, what the currently accepted view is of the theory or structure you chose to investigate.
 - b. Why you chose this topic
 - c. A BRIEF personal history of each of the scientists (Where they were born, lived, profession, years of life, year(s) of scientific contributions.) (Too much extra information on this will lose you points!)
 - d. The contributions of the scientists and how they led to our current understanding of the topic
***Be sure to cite sources of your information in the body of the paper, **in MLA format, with URL's for websites.**
 - e. Include a reference (bibliography) page (minimum of 6 sources, and at least 1 must not be Internet!) **Do not use Wikipedia or WikiAnswers, they are not reliable sources!**
 - f. **Paper Mechanics: Your paper must be:**
 1. **Times New Roman Font, size 10 or 12, double spaced**
 2. **5 – 6 pages long (body of paper) (Title page, Table of Contents and Reference page do not count in this 5-6 pages)**
 3. **Include a separate Title page (Title of project, your name, Period & class, date)**
 4. **Include a separate Table of Contents – identify where each new discovery is located in the body of your paper.**
 5. **Include a separate reference page in proper MLA format, with URL's for websites and that has your entries in alphabetical order. (See me if you do not know how to do this!)**

THIS PROJECT COUNTS AS THE 2ND 57% SUMMATIVE GRADE FOR YOUR RESEARCH PROJECT!!!!**INSTRUCTIONS**

1. Pick **one** of the following projects to complete for a grade, **based on the topic you researched for your paper.**
2. **Each choice has its own rubric, which you can access from Ms. Jenkins webpage.**
3. Project Choices:

a. Documentary Video/DVD

1. Write a script for a documentary that will portray a brief summary of the six (or more) scientists' lives, the contribution they made to your topic, and our current understanding of the topic.
2. Videotape or otherwise record the documentary using whatever props and/or "actors" you need to act out your script.
3. Turn in the script and the videotape (or burn a DVD) turned in with your written report. ****Note: If you burn a DVD, it must open for viewing on the teacher's computer. I suggest Media Player for playing, or PowerDVD.**
4. The DVD must have a colorful, appropriate cover on it.

b. Comic Book

1. Create an original comic book of the information contained in your report, entitled: "The Incredible Discovery of "(Fill in Project title here)".
2. Your comic book should have **4 color panels per page, with 32-40 total frames.**
3. Your comic book should have a clear plot in which you portray a brief summary of the six (or more) scientists' lives, the contribution they made to your topic, and our current understanding of the topic.
4. Your comic book should have a **creative, colorful front cover** that you design.
5. Your comic book should have a **creative, colorful back cover** advertising some related product that you make up.

c. CD/Song

1. Write a song, or a series of songs, to summarize the lives of the six (or more) scientists who contributed to our understanding of your researched topic, and our current understanding of the topic.
2. Type up the lyrics to be turned in with the project.
3. Set the song(s) to music.
4. Record the songs with background instrumentation.
5. Burn a CD to be turned in with the project. ****Note: This CD must be playable on the teacher's computer. Media Player is a good choice.**
6. Design an appropriate, colorful cover for your CD.

d. Diorama

1. Create a series of 3-D dioramas depicting the series of scientists involved in the discovery of our current understanding of the topic you chose. Be sure to include the final discovery that explains the topic today.
2. With each diorama include a paragraph summary placard of what is happening in that diorama.
3. Design a colorful banner to hang above all of the dioramas in the display.

Your Idea? If you have a better idea of a project you would like to do, on your chosen topic, write up a proposal to give to the teacher. Wait for approval before you begin, and if not approved, you must pick from choices a. through d. above.

| Topic | Points Possible | Your Points |
|--|-----------------|-------------|
| 1. Paper Mechanics: Your paper must be: | (25) | |
| a. Times New Roman Font, size 10 or 12, double-spaced | 3 | _____ |
| b. 5 – 6 pages long (body of paper) (Table of Contents and Reference page do not count in this 5-6 pages) | 6 | _____ |
| c. Include a separate Title page (Title of project, name, class, date) | 3 | _____ |
| d. Include a separate Table of Contents – identify where each new discovery is located in the body of your paper. | 3 | _____ |
| e. Include a separate reference page in proper MLA format, with URL's for websites and that has your entries in alphabetical order. Must have a minimum of 6 sources with at least 1 NOT from the Internet. | 10 | _____ |
| 2. Information in Report | (75) | |
| a. Why you chose this topic (1 paragraph) | 5 | _____ |
| b. Minimum of 6 scientists with: when they did their research, where they were/are from, profession, and what major discovery they made related to the topic chosen | 30 | _____ |
| d. Summary explanation of our current understanding of the Topic. (thorough, well explained, sources cited in body of paper in MLA format) | 40 | _____ |
| Total | 100 | _____ |