



GENETICS UNIT PROJECT Applications of Genetics



Big Idea: Genes are the foundation for the diversity of living things.

Task: to investigate the application of genetics in the real world to answer your own inquiry question.

Assignment:

1. Individually, investigate the following Applications of Genetics topics.
-Choose one topic to research further:

Genetic Testing	Designer Babies	GMO (Genetically Modified Organisms)
Human Genome Project	Genetic Engineering	Gene Editing
CRISPR	Gene Therapy	Genetic Diseases

2. Come up with a specific and thoughtful **Inquiry Question**
 - Good Questions:
 - A question you don't already know the answer to.
 - Not simple. Not a *Yes or No* question.
 - "How..." or "Why..." or "To what extent..." or "What is the relationship between..."

Inquiry Question:

Teacher approval: _____

3. **Research** your question and record your sources in a reference list and in-text (using APA format)

4. **Create** a Product that displays your answer to your inquiry question:
- *Movie - Play - Poster - Model - Report - Presentation - Artwork - Song - Vlog -*

Product Type:

Teacher approval: _____

Audience:

You will be sharing your findings to groups of students in our class. Keep your writing to an appropriate level of understanding. Be engaging!

Assessment:

You will be assessed on this assignment using **Criterion D: Reflecting on the Impacts of Science.**

DUE _____

Planning:



Assessment Rubric:

Level	Level descriptor	Criterion D: Reflecting on the impacts of science
0	The student does not reach a standard described by any of the descriptors below.	
1-2	<ul style="list-style-type: none">• outline the ways in which science is used to address a specific problem or issue• outline the implications of using science to solve a specific problem or issue, interacting with a factor• apply scientific language to communicate understanding but does so with limited success• document sources, with limited success	
3-4	<ul style="list-style-type: none">• summarize the ways in which science is used to address a specific problem or issue• describe the implications of using science to solve a specific problem or issue, interacting with a factor• sometimes apply scientific language to communicate understanding• sometimes document sources correctly	
5-6	<ul style="list-style-type: none">• describe the ways in which science is used to address a specific problem or issue• discuss the implications of using science to solve a specific problem or issue, interacting with a factor• usually apply scientific language to communicate understanding clearly and precisely• usually document sources correctly	
7-8	<ul style="list-style-type: none">• explain the ways in which science is used to address a specific problem or issue• discuss and evaluate the implications of using science to solve a specific problem or issue, interacting with a factor• consistently apply scientific language to communicate understanding clearly and precisely• document sources completely	

Explain: Give a detailed account, with scientific reasoning and connections between situations, events, patterns and processes

Describe: Give a detailed account or picture of a situation, event, pattern or process

Outline: Give a brief account

Discuss: Offer a considered and balanced review that includes a range of arguments, factors or hypotheses. Opinions or conclusions should be presented clearly and supported by appropriate evidence

Evaluate: Make an appraisal by weighing the strengths and limitations

Summarize: Abstract a general theme or major point(s)

Factors: social, economic, political, environmental, ethical, moral