

Genetics Research Project

Outcomes

- S1-1-15 Investigate and describe environmental factors and personal choices that may lead to a genetic mutation or changes in an organism's development.
Examples: fetal exposure to alcohol, overexposure to sunlight, toxins, hormone mimics, food additives, radiation...
- S1-1-16 Investigate Canadian and international contributions to research and technological development in the field of genetics and reproduction.
Example: Human Genome Project
- S1-1-17 Discuss current and potential applications and implications of biotechnologies including their effects upon personal and public decision making.
Include: genetic engineering, cloning, Human Genome Project, DNA fingerprinting.
- S1-1-18 Use the decision-making process to address a current biotechnology issue.

Format

You may choose which ever method to present your ideas, poster, power point, photo essay, interpretative dance....
However, this project is to be done **INDIVIDUALLY**

Topics

- Genetic treatments/medications
- Genetic technology
- Human genome project
- Effects of chemicals on human genetics/development
 - Alcohol
 - Tabaco
 - Toxins
 - UV light over exposure
 - Chemicals that mimic hormones
 - Radiation
 - Food additives
- DNA fingerprinting
- Cloning
- Genetic engineering
- Genetic screening
- Genetic mapping
- History of genetic research
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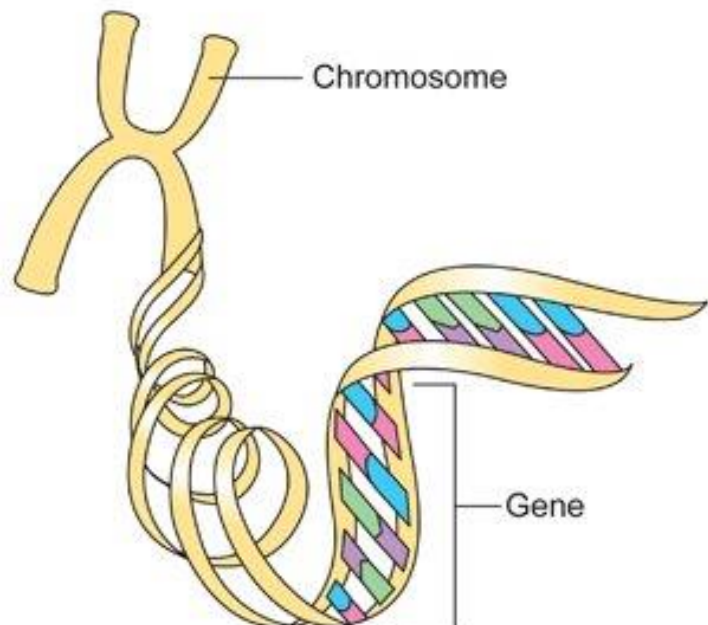


Diagram of a gene on a chromosome
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Criteria	Performance Levels			
Source of Information	Level 1	Level 2	Level 3	Level 4
	<input type="checkbox"/> Student used only one source of information.	<input type="checkbox"/> Student used two sources of information.	<input type="checkbox"/> Student used a variety of sources.	<input type="checkbox"/> Student used a wide variety of sources including the internet.
Information Collected	<input type="checkbox"/> The information collected was not relevant	<input type="checkbox"/> The information collected was relevant to the topic but was not blended into a cohesive piece.	<input type="checkbox"/> The information collected was relevant to the topic and was somewhat organized into a cohesive piece.	<input type="checkbox"/> The information collected was relevant to the topic and was carefully organized into a cohesive piece of research.
Organization of Material	<input type="checkbox"/> The information collected was not organized	<input type="checkbox"/> The information was somewhat organized	<input type="checkbox"/> The information was organized and contained recognizable sections	<input type="checkbox"/> The information was organized and contained recognizable sections that included an introduction, a main body with supporting evidence, and a conclusion that summarized the report.
Presentation of Material	<input type="checkbox"/> The report was handwritten but very difficult to read and follow	<input type="checkbox"/> The report was neatly handwritten <input type="checkbox"/> The report contained a bibliography that was not correctly formatted	<input type="checkbox"/> The report was typed <input type="checkbox"/> The report contained graphics <input type="checkbox"/> The report contained a bibliography that was not correctly formatted	<input type="checkbox"/> The report was neatly typed with appropriate format <input type="checkbox"/> The report contained a title page <input type="checkbox"/> The report contained relevant graphics <input type="checkbox"/> The report contained a complete, correctly formatted bibliography
Author's Voice	<input type="checkbox"/> All the material is copied and pasted	<input type="checkbox"/> A few sections are in authors' own words, but most still copied	<input type="checkbox"/> Most of the presentation is in author's own words <input type="checkbox"/> Copied sections are not quoted	<input type="checkbox"/> Most of the presentation is in author's own words <input type="checkbox"/> All copied sections are appropriately quoted