

# Grade 11 Biology Genetic Technology Research Project

Name: \_\_\_\_\_

- Genetic technologies hold a great deal of promise for advancements in science, but also present unique questions of morality and ethical concerns. So it is important for all Canadians to become well informed on such technologies, before we make key decisions that will affect our future.
  - In this project, you will need to present information on the following aspects of a genetic technology:
    - Summary of technology (how old is it, what is it useful for, how effective is it, etc.).**
    - Basic description of the genetics behind topic.**
    - What are the benefits of the technology?**
    - What social and/or ethical implications/controversies surround this technology, or its uses?**
  - Here is a list of possible topics:
    - Genetic Testing
    - Human Genome Project
    - Stem Cell Treatment for Cancer
    - Stem Cell Treatment for Injury
    - Returning Extinct Species
    - Barcode of Life Data System
    - Cloning
    - Genetics in Medicine and Forensics
    - Genetically Modified Foods
    - Genetically Modified Organisms
    - Canadian Autism Genome Project
    - Human Genome Sequencing
    - Other topic of your choice (to be approved)
  - To report this information you may follow many different formats:
    - Powerpoint/ Prezi
    - Video
    - Comic
    - Website
    - Children's Book
    - Magazine Article
    - You can ask for approval for another design
- Your report should be about 2 pages worth of text/information (approx. 400 – 700 words in length).
- You also **MUST** include complete references (bibliography) for all information, including pictures/diagrams, on a separate page (USE MLA FORMAT).
  - **THE FINAL DUE DATE FOR THIS ASSIGNMENT IS:** \_\_\_\_\_

# Grade 11 Biology Genetic Technology Research Project Rubric

Name: \_\_\_\_\_

Category	Criteria	Level 1	Level 2	Level 3	Level 4
K/U /20	<b>Knowledge of Content</b> <i>(Includes: technology background, uses, and description of the basic genetics behind it)</i>	<ul style="list-style-type: none"> <li>Shows a limited understanding of the background of the technology.</li> <li>Shows a minimal understanding of the basic genetics associated with the technology.</li> </ul>	<ul style="list-style-type: none"> <li>Shows a fair understanding of the background of the technology.</li> <li>Shows some understanding of the basic genetics associated with the technology.</li> </ul>	<ul style="list-style-type: none"> <li>Successfully demonstrates an understanding of the background of the technology.</li> <li>Shows an understanding of the basic genetics associated with the technology.</li> </ul>	<ul style="list-style-type: none"> <li>Shows a limited understanding of the background of the technology.</li> <li>Is able to extensively demonstrate how the technology is associated with basic genetics.</li> </ul>
T/I /20	<b>Plans and conducts an inquiry</b> <i>(Bibliography Formatting and Number of References Used)</i>	-completes a limited list of references, without proper MLA formatting	-completes a list of 1-2 references, without proper MLA formatting	-completes a list of 3-4 references, with proper MLA formatting	-completes a thorough list of more than 4 references, with proper MLA formatting
C /20	<b>Organization and Report Formatting</b> <i>(Project Formatting and Creativity)</i>	<ul style="list-style-type: none"> <li>Material presented in a disorganized manner</li> <li>Project is presented with limited effort in formatting and creativity.</li> </ul>	<ul style="list-style-type: none"> <li>Material presented in a mostly well organized manner</li> <li>Project is presented with adequate effort in formatting and some degree of creativity.</li> </ul>	<ul style="list-style-type: none"> <li>Material presented in an organized manner</li> <li>Project is presented with acceptable attention to formatting good creativity.</li> </ul>	<ul style="list-style-type: none"> <li>Material presented in a well organized manner and well formatted</li> <li>Project is presented with excellent attention to formatting and a high degree of creativity.</li> </ul>
	<b>Vocabulary / Terminology</b>	<ul style="list-style-type: none"> <li>uses scientific terminology with limited accuracy and effectiveness</li> <li>spells and applies rules of grammar with limited accuracy and effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>uses scientific terminology with some accuracy and effectiveness</li> <li>spells and applies rules of grammar with some accuracy and effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>uses scientific terminology with considerable accuracy and effectiveness</li> <li>spells and applies rules of grammar with considerable accuracy and effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>uses scientific terminology with a high degree of accuracy and effectiveness</li> <li>spells and applies rules of grammar with a high degree of accuracy and effectiveness</li> </ul>
A /20	<b>Making connections between science and society</b> <i>(Discusses the benefits, social / ethical implications)</i>	Shows a limited connection between the technology and its potential social/ ethical implications, listing few benefits.	Makes an acceptable attempt to connect the technology and any potential social/ ethical implications, listing only some benefits.	Connects the technology to its potential social/ ethical implications, listing several benefits of the technology.	In great detail, connects the technology with its potential social/ ethical implications and thoroughly describes its benefits.

Comments: