**Biotechnology Research**

**Choose a biotechnology topic to research and present to a panel of your peers. Be prepared to answer questions.**

**Can I describe the impacts and issues surrounding biotechnology and determine advantages and disadvantages of their use?**

* **purpose of the biotechnology**
* **the science of the biotechnology**
* **ethical issues surrounding the biotechnology**
* **economics of the biotechnology**
* **global impacts of the biotechnology**

**Topics Ideas—You can develop your own topic too!**

* **Human genome project**
* **Cloning**
* **Enviropigs**
* **Spider goats**
* **Insulin producing bacteria**
* **Glow in the dark cats**
* **Genetic link to Pain resistance**
* **Patented crop varieties**
* **Antifreeze gene in salmon eggs**
* **GMOs (genetically modified food)**
* **Roundup Ready crops**
* **Banana vaccines**
* **Super tobacco fights Ebola**
* **Genetic engineering of athletes**
* **Golden rice**
* **Blue roses**
* **Designer babies**
* **Artificial Selection (specific breeds)**
* **Milkier Cows (lower cholesterol)**
* **De-extinction**
* **Xenotransplantation**
* **Human Gene Therapy**
* **Nanobiotechnology**
* **Lab burgers**
* **Eugenics**
* **Six Nucleotide DNA**
* **Bioweapons**
* **Bioremediation**
* **Bioengineering plant fuels**
* **Bald Busters**
* **Regrowing human limbs**
* **In vitro fertilization**
* **Anti-Aids gene**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_ Class: \_\_\_\_\_\_**

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| **Research Notes** | |
| **Topic:** | |
| **Who** |  |
| **What** |  |
| **Where** |  |
| **When** |  |
| **Why** |  |
| **How** |  |
| **Benefits** |  |
| **Possible Harm** |  |
| **Sources** |  |

**Presenter’s Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Assessed by: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* ***Can I describe a biotechnology?***
* ***Can I evaluate the issues surrounding this biotechnology?***

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| --- | --- | --- | --- | --- |
|  | **4 Excellent** | **3 Proficient** | **2 Satisfactory** | **1 Limited** |
| **Quality of Information**   * **Who** * **What** * **Where** * **When** * **Why** * **How** * **Benefits** * **Harm** * **Sources** | **All** areas outlined on the research sheet are presented with **significant** **detail**. Key vocabulary and concepts are explained **clearly**. The presenter **accurately and insightfully** answers questions posed by the teacher and audience. The audience has a **solid** understanding of the topic after the presentation.  **More than two** **credible** sources are cited. | **All** areas outlined on the research sheet are presented in **detail**. Key vocabulary and concepts are explained **clearly**.  The presenter **accurately** answers questions posed by the teacher and audience. The audience has a **solid** understanding of the topic after the presentation.  **Two** **credible** sources are cited. | **Almost all** areas outlined on the research sheet are presented in **adequate** **detail**. Key vocabulary and concepts are explained but they are a little **too complex or too simple** for this level.  The presenter provides **sketchy answers** to questions posed by the teacher and audience. The audience has a **general** understanding of the topic after the presentation.  **One** **credible** source is cited. | **Few** areas outlined on the research sheet are presented or **not enough detail** is provided for many areas. Key vocabulary and concepts are explained in an **unclear** manner.  The presenter **cannot accurately** answer questions posed by the teacher and audience. The audience has a **marginal** understanding of the topic after the presentation.  **No credible** sources are cited. |
| **Quality of Delivery** | The presenter speaks **clearly and loudly** enough to be heard by all audience members **100%** of the time. The presenter appears to be **enthusiastic and interested** in the topic. The presenter is **confident** and **consistently maintains eye contact** with the entire audience. The presentation is organized in a **logical sequence**. | The presenter speaks **clearly and loudly** enough to be heard by all audience members **100%** of the time. The presenter appears to be **interested** in the topic. The presenter is **fairly confident** and **usually maintains eye contact** with the entire audience. The presentation is organized in a **logical sequence**. | The presenter speaks **loudly** enough to be heard by all audience members **100%** of the time. The presenter appears to be **somewhat** **interested** in the topic. The presenter is **fairly confident** but **does not maintain eye contact** with the entire audience. The presentation is organized in a **logical sequence**. | The presenter speaks in a **muffled voice** and may be too **quiet**. The presenter does **not** appear to be **interested** in the topic. The presenter **lacks confidence** and **avoids eye contact** with the audience. The presentation is organized in a **confusing** manner. |