Genetics Research Newspaper

**Background**

The Genetic Technology and Disorders section of your Discovery Techbook covers various aspects of rising uses of Genetics. Gene research is an emerging science that is changing the world on many fronts, such as…

Criminalistics (forensics) are changing the nature of police work.

Genetic testing and counseling are providing important health information to people.

Genetic engineering is now possible and growing through the use of recombinant DNA technology.

Engineering of Livestock and crops is altering the farm industry.

There are major advances in medicine.

The use of genetic technology for stem cell research is a controversial topic.

Goal

Using the information found in the Techbook and researching genetic technologies; create a newspaper of your group’s own articles of current genetic technology.

# Procedure

* As a group coordinate the various tasks involved in creating a newspaper. These tasks may include: paper layout, 4-8 articles, editing
* Choose 4-8 different topics and create an article on each one. Consider varying focuses of the different articles such as factual information, a current event or an editorial on the ethics of a topic.
* For each topic create an article that is well researched, informative and in the style of a newspaper article
* Create a newspaper by combining the articles into a paper layout either on the computer or on a piece of large paper. Your paper will likely be 2-5 pages long.
* You may choose to work as a group or assign tasks independently and just put them together in the end.

Grading criteria

10pts. A quality paper layout, including pictures

30 pts. 5-7 researched, informative newspaper articles

10 pts. Using class time productively (this is an individual grade)

10 pts. Going above and beyond (for example a minimum would be 4 quality articles, one from each person in your group)

Possible 60/50

Rubric for Genetic Technology and Engineering

Each Article Should:

· Have at least 2-5 thorough paragraphs

· Explain the concept

· Give examples

· Draw in the reader

· Include scientific facts (not just common knowledge)

· Site all sources (No search engines)

· NO Plagiarism

A few Ideas

Cloning

Eugenics

Genetically Modified food

Transgenic Bacteria

Restriction Enzyme Experiment

Human Genetic Engineering to treat diseases

Expression studies

Transgenesis

Cisgenesis

Agricultural crop DNA modification

Genetic modification of viruses to construct more environmentally friendly lithium ion battery

Gene Knockout experiments

Gain Function experiments

Genetic counseling

Stem cell research

Selective breeding

Targeted Mutagenesis

Human Genome Therapy

Genetic Polymorphism

Gene cloning

Environmental genetic

DNA forensic identification used for:

· Suspect Fingerprinting

o Types include: RFLP,PCR, STR, Mitochondrial DNA Analysis, Y-Chromosome Analysis

· Paternity

· Species Identification (Asian Carp)

· Animal Pedigrees

· Matching organ donors to recipient

· Genealogy

· Victim Identification

o Examples include: 9/11, shoah project, Romanov Family

· Tagging of memorabilia

CODIS – Combined DNA index System