Genetic Diseases/Disorders Project

**Introduction:** In class we have been discussing how different genes code for different traits in individuals. In most of the discussions we have talked about positive outcomes even when dealing with recessive traits such as red hair. In reality things do not work out so nicely, there are many gene abnormalities that cause harmful genetic diseases or disorders. These diseases/disorders can be caused by the following genetic abnormalities: faulty recessive (autosomal or sex linked), co-dominant/incomplete dominant. They can also be a result of problems that occur during meiosis, such as a missing or extra chromosome.

**Objectives:**

1. Students will be able to identify the genetic abnormalities that cause genetic diseases/disorders.
2. Students will be able to decide if a disorder is due to a genetic abnormality or a problem occurring during meiosis.
3. Students will be able to explain the affects these different diseases/disorders have on individuals who have them.

**Resources:**

Fullhart, P.(2010). Genetic Diseases/Disorders Research Project.*Buffalo Grove High School Biology Science Teacher*

**Task:** You and your partner have been employed by a company that makes medical brochures to give to doctors offices. It is your job to create an informational brochure on the genetic disease/disorder you were assigned in class.

**What do we put in this thing?**

Your brochure should contain the following (refer to sample brochure):

Front Page (1):

* Name of disease/disorder
* You and your partners’ name
* Class period
* Picture that is appealing to the reader (must be classroom appropriate)

Inside First Flap (2):

* Definition of disease/disorder
* Include another picture that aides in explaining your definition

Middle Flap on the front side (3):

* What causes the disease ( this portion should contain what type of genetic abnormality or fault in meiosis that causes this disease)
* What populations/genders are most susceptible to the disease.

Last flap on the front side (4):

* Common symptoms of the genetic disease/disorder
* You should include what body systems are affected by the disease
* Include another picture in this section

Back side first flap (5):

* Prognosis for disease (will this be something that impacts the patients everyday life or shortens their life span)
* Early detection (if it applies to the disease that you have been given)

Back side middle flap (6):

* Treatments (medication, therapies, surgery etc)
* Sources listed, you need to have a minimum of 5 sources. You may use Google images as one of your sources.

**Grading:**

* The project will be worth 100 points overall
* To get an idea of what you will be graded on I have attached a rubric for you to use for a guide.
* DO NOT JUST COPY THE SAMPLE PROJECT!! Make your work original as it will be part of your final grade on the project.