

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

## Genetic Disorders WebQuest

### How does DNA get damaged?

Go to the 'DNA Mutations' link: (Link is on the Weebly page):

1. What is polymorphism?
2. List 2 ways that changes happen in our DNA:
3. How are germline mutations different than somatic mutations?
4. What happens during a Point Mutation? Give an example:
5. What happens during a Frame-shift Mutation? Give an example:
6. What happens during a Deletion Mutation? Give an example:
7. What happens during an Insertion Mutation? Give an example:
8. What happens during an Inversion Mutation? Give an example:

### What are Genetic Disorders?

Go to the Genetic Disorders Library (link is also on the Weebly page):

<http://learn.genetics.utah.edu/content/disorders/whataregd/>

### Click on '#5 Cri-DuChat Syndrome'

1. What does Cri-Du-Chat mean in English?
2. What chromosome is affected to cause Cri-Du-Chat?
3. List 3 symptoms of Cri-Du-Chat:
4. What types of treatment are available for Cri-Du Chat?

### Click on '#6 Down Syndrome'

1. What causes Down Syndrome?
2. What happens to chromosome 21 that causes Down Syndrome?
3. What facial features are used to identify Down Syndrome?

4. People with Down Syndrome have an increased risk of developing several medically significant problems. List 4 of these problems:
5. What are 3 tests doctors use to diagnose Down Syndrome?
6. How many people are affected by Down Syndrome?

**Click on '#13 Cystic Fibrosis'**

1. What organ systems are affected by Cystic Fibrosis?
2. Which chromosome is affected to cause Cystic Fibrosis?
3. List 2 problems caused by the thick mucous that is formed from Cystic Fibrosis:
4. How is Cystic Fibrosis inherited?
5. How is Cystic Fibrosis diagnosed?
6. What are some treatments that are used for Cystic Fibrosis?

**Click on '#18 Sickle Cell Disease'**

1. What protein transports oxygen from the lungs to other parts of the body?
2. Which chromosome is affected by Sickle Cell Disease?
3. How is Sickle Cell Disease inherited?
4. List 3 symptoms of Sickle Cell Disease:
5. Why do people with Sickle Cell Disease tend to have lower numbers of red blood cells?
6. How do doctors diagnose Sickle Cell Disease?
7. What are some treatment options available for people with Sickle Cell Disease?
8. Carriers of the Sickle Cell gene are more resistant to what disease that is carried by mosquitos?