ROSEDALE
ACADEMY

Genetic Mutations Handout

As you work your way through the genetic mutations interactive activity, answer the following questions to help you collect the relevant information.

1. **What is a genetic mutation?**

2. **What is the difference between an acquired mutation and a hereditary mutation?**

3. **Define the following mutations. What effects do they have on the genetic code, if any?**

   I.   **Point Mutation**

         a. **Silent**

         b. **Nonsense**

         c. **Missense**

   II.   **Frameshift Mutation (insertion and deletion)**

4. How can a mutation that is deemed negative to an individual when it first arises later become beneficial to individuals and the species as a whole?