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

**Types of Mutations**

|  |  |
| --- | --- |
| **Insertion***Definition:* | **Deletion***Definition:* |
| **Duplication***Definition:*  | **Frameshift Mutation***Definition:* |
| **Repeat Expansion***Definition:* | **Nonsense Mutation***Definition:* |

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

Types of Mutations—Answer Key

|  |  |
| --- | --- |
| **Insertion***Definition:* An insertion changes the number of DNA bases in a gene by adding a piece of DNA. | **Deletion***Definition:* A deletion changes the number of DNA bases by removing a piece of DNA. |
| **Duplication***Definition:* A duplication consists of a piece of DNA that is abnormally copied one or more times. | **Frameshift Mutation***Definition:* This type of mutation occurs when the addition or loss of DNA bases changes a gene’s reading frame. A frameshift mutation shifts the grouping of these bases and changes the code for amino acids. Insertions, deletions, and duplications can all be frameshift mutations. |
| **Repeat Expansion***Definition:* A repeat expansion is a mutation that increases the number of times that a short DNA sequence is repeated. | **Nonsense Mutation***Definition:* A nonsense mutation is also a change in one DNA base pair. Instead of substituting one amino acid for another, the altered DNA sequence prematurely signals the cell to stop building a protein. |