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

**Types of Mutations**

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

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

Types of Mutations—Answer Key

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| --- | --- |
| **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. |