**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Peppered Moth Worksheet**

**Directions:** Answer each question in complete sentences.

1. What does variation mean?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. What variation in peppered moths does this article describe?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Why were dark-colored peppered moths successful during the Industrial Revolution in England?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. What do you think would have happened to the peppered moth population during the Industrial Revolution if a dark variety of the species had not existed?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Why are dark-colored peppered moths rare today?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Directions:** Answer the following question in a paragraph on a separate sheet of paper. Use the following words in your paragraph: **variation**, **adaptation**, and **natural selection**.

6. How is the peppered moth story an example of natural selection?

**Answer KEY**

**Peppered Moth Worksheet**

1. What does variation mean?

*Variation means that individual organisms have different traits from one another.*

2. What variation in peppered moths does the article describe?

*The article describes different colors: a dark-colored and a light-colored peppered moth.*

3. Why were dark-colored peppered moths successful during the Industrial Revolution in England?

*Dark-colored peppered moths were successful during the Industrial Revolution in England because air pollution killed the gray lichens that covered trees and the dark bark showed through. The dark-colored moths were harder for predators to spot.*

4. What do you think would have happened to the peppered moth population during the Industrial Revolution if a dark variety of the species had not existed?

*Answers may vary. Sample answer: I think that the peppered moths in England might have all died if the dark variety did not exist.*

5. Why are dark-colored peppered moths rare today?

*Dark-colored peppered moths are rare today because the environment is cleaner and the lichens have returned to the trees. Light-colored peppered moths survive better on the light trees.*

**Directions:** Answer the following question in a paragraph on a separate sheet of paper. Use the following words in your paragraph: **variation**, **adaptation**, and **natural selection**.

6. How is the peppered moth story an example of natural selection?

*Peppered moths have* ***variation*** *in their color. Some are light grey and some are dark. The dark color is an* ***adaptation*** *that allowed the moths to blend in and hide on trees with dark bark. The moths with the dark color were more likely to survive and reproduce because they were not eaten by other animals as often as those with light color. For that reason, dark colored moths became more common over time.*