



Unit 2 Evaluation Student Handout

Name _____



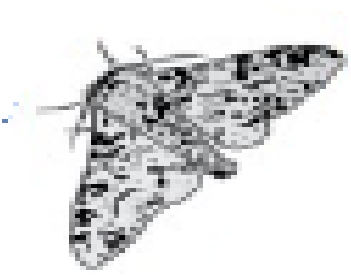
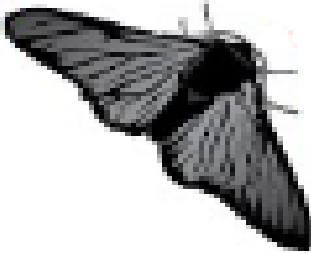
(Before Clean Air Act)

(After Clean Air Act)

Photo from Manchester Evening News

Coal fires and smoke from industrial chimneys turned many of the Victorian landmarks in Manchester, England a sooty black before the Clean Air Act of 1956 reduced pollution. The buildings and streets were covered in soot. Architectural historian Dr Andrew Crompton explained: "It's fair to say Manchester was the filthiest city in the world and the point of maximum blackness was in the late 1940s." The picture above shows a building before the Clean Air Act was passed in 1956, and afterwards.

England's moth population changed over time during the 19th Century. Look at the table below and write an explanation of how and why the traits of the moth population changed from light to dark.

<p>Original population BEFORE England's 19th Century Industrial Revolution</p>  <p>Images from Concepts of Biology</p>	<p>Population AFTER England's 19th Century Industrial Revolution</p> 
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Teacher Background Information.

During 19th-Century England’s Industrial Revolution, the color of the moth population changed from lighter to darker. The cause was that the trees darkened from all the soot the Industrial Revolution produced. Peppered, darker-colored moths camouflaged better than the lighter colored moths. Since the darker moths camouflaged better from predators, there were more darker-colored moths in the population. Over time, the darker-colored moth population prevailed.

Possible Rubric for Evaluation:

Not Yet = 1

Approaches Expectation = 2-3

Meets Expectation = 4

Advanced Points =5

Core Idea	Not Yet	Approaches Expectation	Meets Expectation	Advanced
Point Scale	1	2-3	4	5
Constructs an explanation based on evidence that changes in the environment can affect the development of the traits in a population of organisms				
Communicates evidence about how nature and human-caused changes to habitats can impact populations				

Possible Rubric for Evaluation:

Not Yet = 1

Approaches Expectation = 2-3

Meets Expectation = 4

Advanced Points =5

Core Idea	Not Yet	Approaches Expectation	Meets Expectation	Advanced
Point Scale	1	2-3	4	5
Uses detailed relevant facts to show understanding of core idea through accurate and precise descriptions, explanations and examples.				
Uses appropriate content vocabulary accurately				
Uses core ideas to accurately explain natural phenomena, and can make reasonable predictions about future events based upon this knowledge.				