



Center for the Environment at Catawba College  
*Campaign for Clean Air*  
Clean Air in the Classroom

## Stage 1 Activity 4 | "The Industrial Revolution and Moths"

### Overview

This lesson is a great way to teach several of the seventh grade competency objectives at the same time. Not only do the students learn about air quality, they also learn how to review publications, especially ones found on the internet. The lesson incorporates genetics as well, which is another part of their course of study.

There are many articles to be found on the internet that describe the relationship among the industrial revolution, air quality and moths, but the one listed seems to be middle of the road. If time permits, you may want your students to research other articles on the internet and compare their validity and the author's background and purpose. The article can be found at

<http://www.txtwriter.com/backgrounders/Evolution/EVpage07.html> .

### North Carolina Standard Course of Study

This lesson meets seventh grade science competency goals 3.03, 3.04, seventh grade language arts 1.02, 2.01, and reinforces what students may have already learned or will learn to do with science competency goal 5.

### Learning Objectives

Students will be able to explain *how* the industrial revolution created enough air pollution to change the genetic tendencies of a population of peppered moths.

### Materials

- article, "Peppered Moths and Industrial Melanism,"

### Procedures

- 1.) Have the students silently read the article "Peppered Moths and Industrial Melanism".

### Assessment

- 2.) Have the students create a cartoon of what happened in the article. Cartoons should include representations of the industrial revolution polluting the air and it's effects including: the color of the trees, the changing camouflage opportunities, the birds eating the opposite colored moths more than they used to, and the population of the dark moths at this time.