Ozone Pollution Module Overview

The purpose of this module is to effectively educate individuals on the topic of ground level ozone pollution by demonstrating its effects on vegetation. The module consists of nine documents which are as follows:

Ozone Pollution Module Overview
Ozone Module Power Point: Lesson One
Ozone Module Power Point: Lesson Two
Air Quality Learning and Demonstration Center Video
Environmental Crime Scene Investigation Activity
Environmental Crime Scene Investigation Activity Answer Key
Ozone Module Homework Assignment
Ozone Quiz
Ozone Quiz Answer Key

With the above documents the instructor should be able to successfully fulfill the purpose of this module and their students should be educated on the topic of ground level ozone pollution.

Suggestions:
The instructor will find that both power point presentations are rather long, both lessons consist of 38 slides. If a class period is 50 minutes or less, it is recommended that these lessons are broken into one and a half or two periods as opposed to one class period for each. However, with this, the instructor may use their own discretion.

Each power point presentation has animation schemes set up with the slides; these have been set up for both organization and class participation purposes. The instructor will find several questions within each power point, it is recommended that the teacher use the animation to their benefit and bring up the question prior to the answer. By asking these questions in class and having the students provide the answer first, it will provoke class participation and force the students to think about and tie together the information that they have been learning.

The instructor will find a module homework assignment which is designed to be completed primarily online. If any students do not have on line access you may restructure the homework assignment at your will. This assignment is also designed so that it may be handed out at the end of the first class period; it is up to the instructor as to how much time the students are allotted to hand the in assignment.

There are three slides over the course of the two lessons where it is beneficial to have online access within the classroom. If online access is available to you, be sure and try each link prior to teaching the module so that you are aware of how to navigate within each website. These links are placed in the module as small interactive activities and to provide greater clarity to the topic being discussed. However, if internet access is not available it is not essential that the links are used. *Concerning the Learning Center video it is highly recommended to save time and ensure better quality that the video be downloaded and saved onto the computer and played at least once prior to class.

Below each slide in the power point presentations notes have been written. These notes are there for the instructors benefit; please be sure to read all of the notes before presenting the lessons because there may be information or suggestions provided that are not within the slide itself.

The Environmental Crime Scene Investigation is meant to be completed after both power point lessons are done; it is set up as an activity to wrap up the information that the students learned during the two lessons. There are five questions at the end of the activity and you have been provided with an answer key to those questions.

A quiz to test the students' knowledge on the topic after completion of the module along with an answer key has been provided. This is a 15 question multiple choice quiz which asks a wide range of questions specifically from the lessons within the module.

Below are a list of references used in development of this module and if further information is required these are all excellent sources to consult.

References

Air Now. 2007. http://www.airnow.gov/index.cfm?action=gooduphigh.ozone#2

Heck et al. 1983. *Environmental Science and Technology* 17:572A

National Weather Service. 2007. http://www.nws.noaa.gov/

PA Department of Environmental Protection. 2007.
http://www.depweb.state.pa.us/dep/site/default.asp

Penn State Air Quality Learning and Demonstration Center. 2007.
http://www.aireffects.psu.edu/learning/index.htm

US Department of Agriculture. 2007. http://www.usda.gov/wps/portal/usdahome

US Environmental Protection Agency. 2007. http://www.epa.gov/