

Lesson Outline**LESSON 4*****Air Quality*****A. Sources of Air Pollution**

1. _____ is the contamination of air by harmful substances including smoke and other gases.
 - a. Air pollution harms animals and humans by weakening the _____ and causing disease.
 - b. Air pollution _____ plants, including crops, and can reduce food production.
2. _____ is pollution that comes from an identifiable source. A natural source of this pollution is a(n) _____.
3. _____ is pollution that comes from a widespread area. A natural source of this pollution is _____.

B. Causes and Effects of Air Pollution

1. _____ forms when sulfur dioxide and nitrogen oxides combine with moisture in the atmosphere and create precipitation that has a pH lower than that of normal rain water.
 - a. Acid precipitation falling in lakes and rivers can harm _____ living in the water.
 - b. Acid precipitation can _____ buildings that are made of stone.
 - c. One of the most common sources of pollutants that cause acid rain is _____.
2. _____ is air pollution that forms from the interaction between chemicals in the air and sunlight.
 - a. Smog forms when _____ from gasoline mixes with sunlight.
 - b. _____ is the main gas in smog; at ground level, this gas can harm the tissues of plants and animals.

C. Particulate Pollution

1. _____ is a mixture of dust, acids, and other chemicals that can be harmful to human health.
2. The _____ particles are usually the most harmful because they can be inhaled and can cause asthma and bronchitis and lead to heart attacks.

Lesson Outline continued

D. Movement of Air Pollution

1. _____ can carry air pollution from one place to another.
2. A(n) _____ can trap pollution in a valley for a number of days.

E. Maintaining Healthful Air Quality

1. The _____ of 1970 allows the U.S. government to set limits on levels of harmful pollutants, including carbon monoxide, lead, nitrogen oxides, ozone, particulate matter, and sulfur dioxide.
2. Officials _____ air pollution levels in all major U.S. cities.
When pollution levels become high, they issue _____ and recommend that people limit certain activities, such as exercising outside and driving.

F. Air Quality Trends

1. Because of the Clean Air Act, levels of most air pollutants have _____ greatly in the past four decades.
2. The level of ground-level ozone has increased mainly because of the increased number of _____.
3. _____ air pollution can be 50 times stronger than _____ air pollution.
 - a. Sources of _____ include tobacco smoke, cleaning products, and some carpets and upholstery.
 - b. The gas _____, which escapes from some soil, enters buildings through cracks in foundations.