Name: _____ Period: _____ Date: _____

Environmental Science Study Guide

Air Pollution

Vocabulary

Understand and be able to apply each of these terms.

1. Air Pollution –
2. Primary Pollutant –
3. Secondary Pollutant –
4. Temperature Inversion –
5. For each of the ***criteria pollutants,*** be able to recognize their physical properties, identify their effects on the environment, and know an example of a significant source.
    a. Sulfur dioxide –
    b. Carbon monoxide –
    c. Particulates –
    d. Ozone –
    e. Nitrogen Oxides –
    f. Lead –
6. Volatile Organic Compounds -

Critical Thinking

Be able to read, analyze, and give complete answers to questions like these.

1. How are each of these secondary pollutants formed?
    a. Smog –
    b. Acid Rain –
    c. Ozone –
2. What caused the Donora Fluoride Fog and the London Smog disasters? What effect did these events have on the development of the Clean Air Act?

3. How is the pH scale used to measure the severity of acid rain? What is an example of a pH that would be measured in normal rainwater, and an example of a pH from acid rain?

4. Summarize the effects of acid precipitation on aquatic life, plant life, and man-made structures.

5. Why is the ozone layer important? What does it protect against?

6. Explain the relationship between CFC pollutants and the depletion of the ozone layer. Why is the ozone hole centered over Antarctica?

7. The Montreal Protocol is considered a great success of the environmental movement. What did countries agree to that signed the protocol?

8. Particulate removal and electrostatic precipitators are two technologies utilized to reduce air pollution. How does each work?

9. Fuel switching involves moving from a high-polluting fuel source to a cleaner one. Give an example of each.

10. The release of two criteria pollutants has increased since 1970. Which two? Give a reason why.