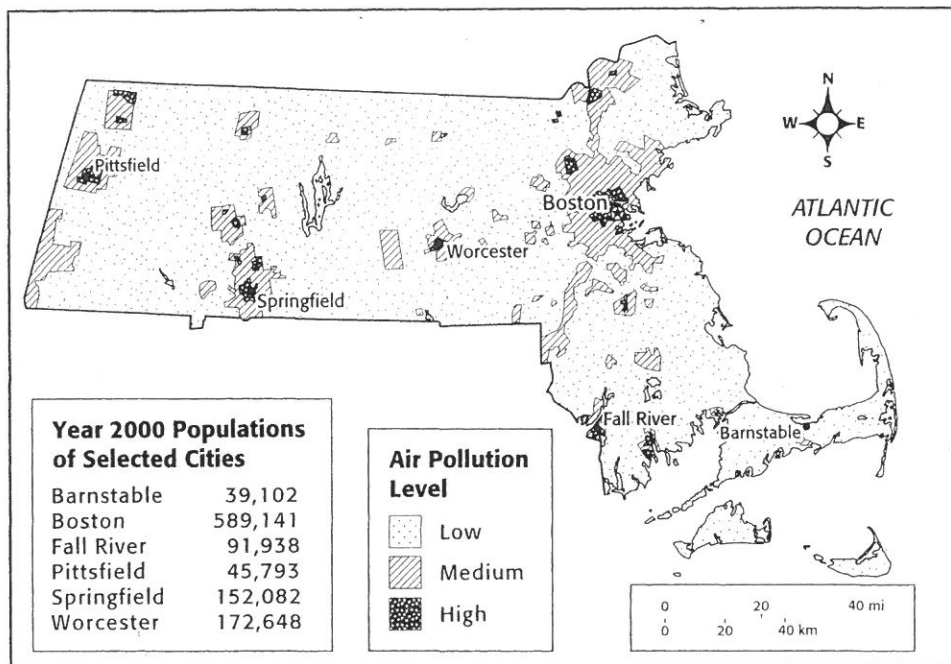


Map Skills

Ch 12



This map shows air pollution in Massachusetts. Air pollution concentrates over populated areas because human activity is its primary cause.

Use the map above to answer the questions below.

- 1. Using a Key** What air pollution level is found over most of the state of Massachusetts?

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- 2. Finding Locations** Which selected city has the lowest level of air pollution?

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- 3. Inferring Relationships** Generally, where are the highest levels of air pollution located?

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- 4. Making Conclusions** Explain the relationship between air pollution and human population.

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- 5. Making a Hypothesis** What do you think the air pollution level is over your region?

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**Section: What Causes Air Pollution?**

**MATCHING**

In the space provided, write the letter of the term or phrase that best matches the description.

- |  |                          |
|--|--------------------------|
| _____ 1. have no emissions from tailpipes or gasoline  | a. primary pollutant     |
| _____ 2. results from chemical reactions involving sunlight, air, exhaust, and ozone             | b. ZEVs                  |
| _____ 3. scrubbers and electrostatic precipitators help industries meet the requirements of this | c. smog                  |
| _____ 4. put directly into the air by human activity   | d. temperature inversion |
| _____ 5. a source of air pollution before modern times   | e. Clean Air Act         |
| _____ 6. atmospheric condition that traps pollution near the ground                              | f. sea-coal              |

**MULTIPLE CHOICE**

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

- |   |  |
|---|--|
| _____ 7. Which is a secondary air pollutant?                        | _____ 9. Which device helps clean car exhaust?                                       |
| a. ozone  | a. electrostatic precipitator  |
| b. carbon monoxide  | b. scrubber  |
| c. particulate matter   | c. catalytic converter   |
| d. nitrogen oxides  | d. ZEV   |
| _____ 8. Volatile organic compounds                                 | _____ 10. Which pair below are the two main sources of air pollution in urban areas? |
| a. are tiny particles of liquid or solid matter.                    | a. vehicles, volcanoes   |
| b. are produced by chemical interactions between sulfur and oxygen. | b. vehicles, industries  |
| c. are an odorless, colorless poisonous gas.                        | c. industries, agriculture   |
| d. are organic chemicals that form toxic fumes.                     | d. none of the above   |

Ch 12

Assessment

Quiz

**Section: Air, Noise, and Light Pollution**

**MATCHING**

In the space provided, write the letter of the term or phrase that best matches the description.

- |  |  |
|--|--|
| _____ 1. causes stress, high blood pressure, hearing loss                            | a. indoor air pollution                |
| _____ 2. solutions include shielding, time controls, and low-pressure sodium sources | b. sick-building syndrome              |
| _____ 3. emphysema, lung cancer, heart disease                                       | c. light pollution                     |
| _____ 4. can occur in tightly sealed buildings                                       | d. noise pollution                     |
| _____ 5. sources include plastics, carpets, cleaning fluids, radon, and asbestos     | e. long-term effects of air pollution  |
| _____ 6. headache, eye irritation, coughing, bronchitis                              | f. short-term effects of air pollution |

**MULTIPLE CHOICE**

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

- |  |   |
|--|---|
| _____ 7. Which is a natural indoor air pollutant?<br>a. carbon monoxide<br>b. formaldehyde<br>c. nitrogen oxides<br>d. radon   | _____ 9. Which is true of air pollution and human health?<br>a. Years of research link air pollution to lung diseases.<br>b. Air pollution is commonly listed as a cause of death.<br>c. None of the health effects of air pollution are reversible.<br>d. Healthy adults are most affected by air pollution. |
| _____ 8. Which is <i>not</i> part of correcting sick-building syndrome?<br>a. removing sources of indoor air pollution<br>b. sealing cracks where air leaks into the building<br>c. improving ventilation<br>d. cleaning air ducts | _____ 10. Which air pollutant scars the lungs?<br>a. asbestos<br>b. radon<br>c. fungi<br>d. ozone   |

## Assessment

## Quiz

**Section: Acid Precipitation****MATCHING**

In the space provided, write the letter of the term or phrase that best matches the description.

- |  |  |
|--|--|
| _____ 1. measure of how acidic or basic a substance is           | a. acid precipitation                  |
| _____ 2. an effect of acid precipitation on soil and water       | b. acid shock                          |
| _____ 3. addresses acid precipitation falling downwind of source | c. acidification                       |
| _____ 4. caused by gases from fossil fuels                       | d. pH                                  |
| _____ 5. aluminum  | e. Canada-U.S. Air Quality Agreement   |
| _____ 6. occurs most often in the spring                         | f. released by soil that is too acidic |

**MULTIPLE CHOICE**

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

- |  |  |
|--|--|
| _____ 7. Which has <i>not</i> been linked to acid precipitation?<br>a. toxic metal poisoning<br>b. lower blood pH<br>c. respiratory problems<br>d. damaged monuments | _____ 9. Which is <i>not</i> an effect of acid precipitation on aquatic ecosystems?<br>a. death of animals and plants<br>b. lower reproduction rates<br>c. suffocation of fish<br>d. increased growth of algae |
| _____ 8. Which is a cause of acid precipitation?<br>a. sulfur and nitrogen oxides<br>b. carbonic acid<br>c. high pH in rainfall<br>d. acid shock                     | _____ 10. Precipitation is considered acid if its pH is<br>a. above 7.0.<br>b. above 5.0.<br>c. below 5.0.<br>d. below 5.6.  |