Environmental Science - Chapter 5

Section 1 – Air Pollution

air pollution	acid rain	emissions
ozone layer	photochemical smog	chlorofluorocarbons (CFC)
ozone	greenhouse effect	temperature inversion
global warming	pH scale	particulates

- What are the primary components of air?
- What is a pollutant?
- Pollutants can be gases or particulates. Give examples of each.
- What is the major source of photochemical smog? How does smog form?
- What are some sources of indoor air pollution mentioned in the book?
- What two indoor pollutants are difficult to detect? Why are they difficult to detect?
- What are some health effects of the following air pollutants: smog, carbon monoxide, radon
- What is acid rain? How does it occur? What are the consequences to living & nonliving things?
- What is the ozone layer? Where is it found? What are its benefits?
- What gases react with ozone molecules and reduce its effectiveness?
- What is the "greenhouse effect"? What gases help prevent heat from escaping into space?
- What is the theory of global warming? According to the theory, what is thought to be the primary cause of increased global temperatures today?

Section 2 - The Water Supply

ground water	fertilizer	drought
pesticide	water pollution	sediments
sewage	ppm	

- How much of Earth's water is salt water? How much is frozen? How much is liquid fresh water?
- What are the primary sources of drinking water in the United States? In Saudi Arabia?
- How is Earth's supply of fresh drinking water renewed?
- How does a water shortage occur?
- Most water pollution is the result of human activity. How do the following forms of water pollution affect the environment?
    - sewage
    - agricultural wastes:
        - fertilizers
        - pesticides
    - industry & mining
    - sediments
    - oil & gasoline
    - heat

Section 3 - Finding Pollution Solutions

scrubbers	catalytic converter	primary treatment
secondary treatment	chlorination	

- What is the primary role of technology in controlling air pollution?
- What form of technology is used to control air pollution in industrial smokestacks?
- What form of technology is used to control air pollution in automobiles?
- What role does legislation (laws) play in controlling pollution?
- What are two basic ways to reduce water pollution?
- How is sewage treated? What is involved in primary and secondary treatment?
- How is nature able to deal with small oil spills in the ocean?
- What is the concern regarding leaks from underground storage tanks of hazardous chemicals?
- What can individuals do to prevent or reduce air and water pollution?