

Name:	Class/ Section: 12 ES	Date:
Chapter: 9 Environmental Health	Lesson: 9.3 Toxic substances in Environment	Textbook p.: 267 - 276
Graded Classwork		____ / 23

9.3 Toxic Substances in the Environment

1 Define “chemical hazard.”

2 What is pollution?

3 Are chemical hazards and pollutants the same thing? Why or why not? Explain.

Types of Chemical Hazards

4 Complete the following paragraph with terms from the word bank.

carcinogens neurotoxins teratogen

Chemical hazards affect human health in different ways. Some heavy metals act as _____ that can cause slurred speech or loss of muscle control. Chemicals that cause cancer are known as _____. Some chemicals that do not harm adults are still hazards if they affect the development of human embryos. This type of chemical hazard is known as a _____.

5 Why are carcinogens difficult for toxicologists to identify?

6 Explain what a mutagen is and describe possible effects.

7 Describe some common allergens and explain how they harm people.

8 What is an endocrine disruptor?

Indoor Chemical Hazards

For Questions 9–13, match each term with the statement that best describes it.

- | | |
|-------------------------|---|
| ___ 9. asbestos | a a gas that can cause headaches, dizziness, fatigue, and eventually death |
| ___ 10. carbon monoxide | b can be in air, water, soil, paint, or dust and damages organs of the body |
| ___ 11. lead | c used for insulation, can cause cancer |
| ___ 12. radon | d contain carbon and are released into the air by products such as plastics |
| ___ 13. VOCs | e a colorless, odorless radioactive gas that is released from soil and can cause cancer |

14 Explain why you should not tear down asbestos and simply throw it away if you find it in your home.

15 List three types of tests you could do at your house to protect against chemical hazards.

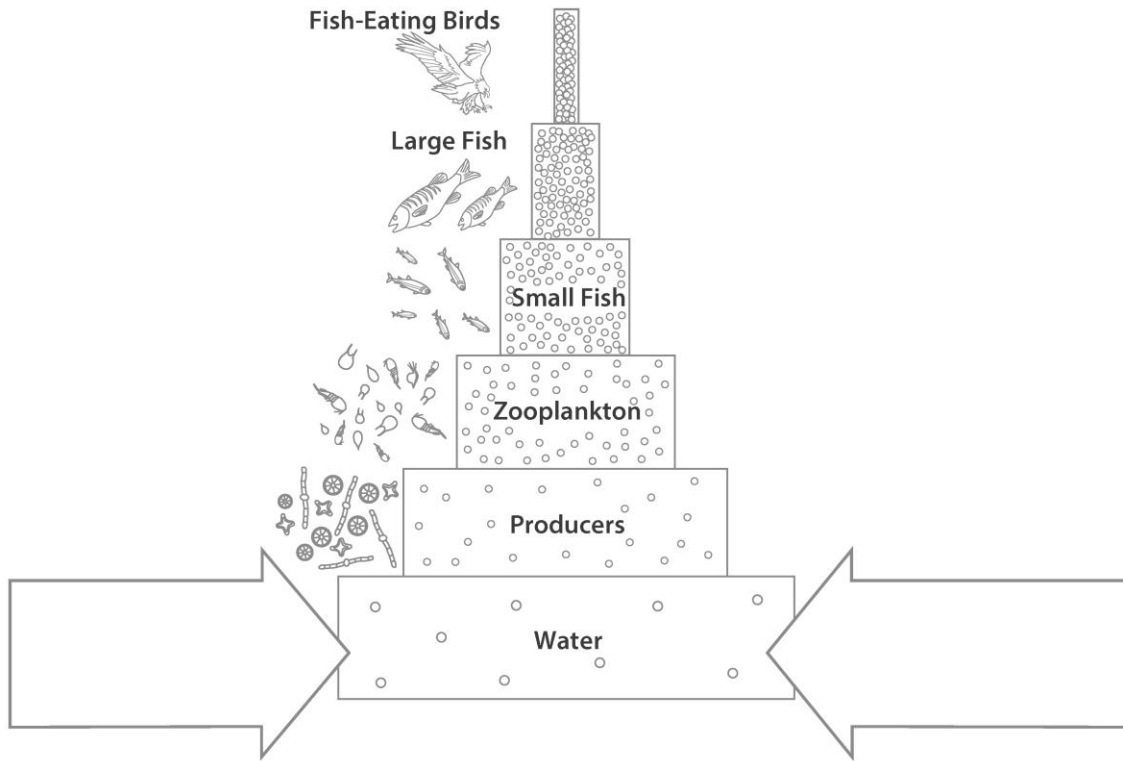
Outdoor Chemical Hazards

16 Explain why citizens of one town might need to be concerned with the chemical hazards in the air of a town many miles away.

17 Describe how chemical hazards can get into soil and some of the ways that they can cause harm to humans.

Biomagnification

18 Think Visually In each arrow, write one way that a chemical such as DDT can get into waterways. In each block, add dots to represent levels of chemical concentrations and how they change due to biomagnification.



19 How did high concentrations of DDT affect bird populations?

20 Explain why a persistent organic pollutant (POP) is a problem that is often handled by international agreements or treaties.
