

US Biology Teaching: Environmental Science
Lesson 13 Assessment
Environmental Hazards and Human Health

Fill in the Blank: 10 points

Complete each statement by filling in the blank with the best vocabulary term. Words may be used once, more than once, or not at all.

WORD BANK

Virus * Toxicology * Teratogen * Carcinogen * Mutagen *
Toxic Chemical * Dose * Transmissible Disease
Precautionary Principle Response * Parasite * Infectious Disease * Pathogen

An agent that can cause disease in other organisms is known as a(n) **1**.

_____. It may replicate by invading a cell, taking over genetic material, and then spread itself throughout the body. This type is known as a(n) **2**.

_____. A disease caused by a pathogenic agent is a(n) **3**.

_____. Cancer caused by chemical, radiation, or a virus is a **4**.

_____. A **5**. _____ is a type of chemical that harms or can cause birth defects in a fetus or embryo. A(n) **6**.

_____ can be passed down from one person to another. An element or compound that can cause temporary or permanent harm or death to humans is a(n) **7**. _____.

8. _____ is the study of the harmful effects of chemicals on humans and other organisms. A(n) **9**.

_____ is the amount of a harmful chemical a person has ingested, inhaled, or absorbed through the skin at any one time. **10**. _____

refers to the view that there is evidence that an activity, chemical, or technology can harm humans, other organisms, or the environment, and measure should be taken to avoid harm rather than wait for scientific evidence.

Matching: 10 points

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|-----------------------------------|--|
| 1. _____ Bacterium | A. Toxic agent that increases the frequency of mutations in the DNA molecules found in cells. |
| 2. _____ Mutagen | B. Assessing, ranking, and managing risks and communicating information with decision makers about public health |
| 3. _____ Risk Assessment | C. Caused by something other than another living organism and does not spread from one human to another |
| 4. _____ Nontransmissible Disease | D. a single-celled organism that can multiply rapidly |
| 5. _____ Risk Analysis | E. Process of using statistical methods to estimate how much harm a particular hazard can cause |
| 6. _____ Parasite | F. Deciding whether and how to reduce a particular risk to a certain level |
| 7. _____ Toxicity | G. Can mimic or block hormones |
| 8. _____ Risk Management | H. a chemical that is added to many commercial products such as food containers and hygiene products |
| 9. _____ HAAs | I. Measure of the ability of a substance to cause, injury, illness, or death to a living organism |
| 10. _____ BPA | J. Organism that lives on or inside another organism |

Multiple Choice: 10 points

1. Which of the following is NOT a transmissible disease?

- A AIDS
- B Influenza
- C Tuberculosis
- D Asthma

2. Which of the following is a type of bacteria?

- A Hepatitis B
- B Strep
- C Influenza
- D Rabies

3. Almost _____ percent of the world's population is at risk of getting malaria.

- A 30%
- B 40%
- C 50%
- D 60%

4. Alcoholic beverages are a:

- A Mutagen
- B Teratogen
- C Carcinogen
- D Hemoglobin

5. Which human body system uses chemicals to regulate hormones?

- A Immune
- B Endocrine
- C Nervous
- D Cardiovascular

6. Which of the following is NOT a way to avoid HAAs?

- A Use vinyl shower curtains.
- B Use natural cleaning products.
- C Avoid using dryer sheets.
- D Eat organic foods.

7. Which of the following poses the biggest lifestyle risk?

- A Diabetes
- B Drug Overdose
- C Alcohol Use
- D Infectious Diseases

8. Third-hand smoke contains more than _____ chemicals.

- A 250
- B 175
- C 100
- D 25

9. Unsafe working conditions are considered a type of _____ hazard.

- A Biological
- B Lifestyle
- C Cultural
- D Natural

10. HIV impairs the _____ system.

- A Immune
- B Endocrine
- C Respiratory
- D Reproductive

Critical Thinking: 20 points



Some people believe that the precautionary principle is comparable in certain respects to the judicial concept “guilty until proven innocent.” In the United States, one is “innocent until proven guilty” in the court system.

Explain the precautionary principle in your own words. Do you believe that regulators in the United States should apply the precautionary principle to chemicals for which toxicity levels have not been determined? Why or why not? Explain your reasoning by citing specific examples.

Part I (5 points)

Explain the precautionary principle in your own words.

Part II (15 points)

Do you believe that regulators in the United States should apply the precautionary principle to chemicals for which toxicity levels have not been determined? Why or why not? Explain your reasoning by citing specific examples.