

Environmental Diseases

1. According to the **Miasma Theory of Disease**, what is the cause of illness?

2. Describe each of these common treatments from doctors following the Miasma theory.
 - a. Bloodletting –

 - b. Water Cure –

3. According to the **Germ Theory of Disease**, what is the cause of illness?
 - a. What two important discoveries stemmed from the germ theory?

4. What is a **non-transmissible disease**?
 - a. Give an example.

5. What is an **infectious disease**?

6. Define each of these types of infectious organisms and cells:
 - a. **Multicellular** –

 - b. **Unicellular** –

 - c. **Prokaryote** –

 - d. **Eukaryote** –

7. Summarize each of the different causes of infectious disease using this table:

Infectious Agent	Type of Cell	Single or Multicellular	Example Disease
Large Parasites			
Fungi			
Protozoa			
Bacteria			
Viruses		N/A	
Prion		N/A	

8. What was the cause of the 1993 intestinal outbreak in Milwaukee? How did it spread?

9. What is an **emergent disease**?

10. What is the hypothesized origin of each of these emergent diseases?

- a. HIV –
- b. SARS –
- c. H1N1 Influenza –
- d. Spanish Flu of 1918 –

11. What type of climates is the malaria protozoa most likely to be found? Why?

12. Describe the three strategies used to deal with malaria in the 1940s:

- a.
- b.
- c.

13. What is **resistance**?

14. What types of disease do **antibiotics** treat?

15. Why are bacteria able to evolve resistance more quickly than other organisms?

16. Describe the four misuses of antibiotics that encourage the development of resistance:

- a.
- b.
- c.
- d.

Chemical Toxins

17. What does it mean if a substance is **toxic**?

18. Describe what kind of effects each of these mutagens can have:

- a. Carcinogens –
- b. Teratogens –

19. What effect do **neurotoxins** have on the body? What are two examples of neurotoxins?

20. How does each of these types of **endocrine hormone disruptors** affect the body?

- a. **Hormone mimics** –
- b. **Hormone blockers** –

21. How is the plastic additive BPA classified?
22. What does **toxicity** measure?
23. Finish the statement, “*Any synthetic or natural chemical has the potential to cause harm* _____
_____.
24. Which type of solubility is more likely to lead to the accumulation of a toxin in the body?
25. What is chemical **persistence**?
26. What level of a food chain is most likely to **bioaccumulate** a persistent toxin?
27. What does the **mortality** in a toxicity study tell you?
 - a. What exactly does the LD50 level tell you about a substance?
28. Define **risk assessment** –
29. What is an example of an acceptable risk with a high probability of exposure? Why is this risk acceptable?
30. What is an example of an acceptable risk with a high severity? Why is this risk acceptable?
31. According to the graphic shown, what is the greatest cause of death in the United States?

The lowest?