

Environmental Science Study Guide

Water and Water Pollution

Vocabulary

Understand and be able to apply each of these terms.

1. Hydrologic Cycle –
2. Infiltration –
3. Zone of Aeration –
4. Zone of Saturation –
5. Water Table –
6. Aquifer –
7. Recharge zone –
8. Water consumption –
9. Water degradation –
10. Water stress –
11. Cone of depression –
12. Subsidence –
13. Saltwater intrusion –
14. Desalination –
15. Watershed –
16. Point sources –
17. Nonpoint sources –
18. Sediment –
19. Thermal pollution –
20. Impaired waters –
21. Reverse osmosis –
22. Distillation –

23. Ozonation –
24. Heap Leaching –
25. Coliform bacteria –
26. Biochemical Oxygen Demand (BOD) -
27. Dissolved Oxygen Content (DO) –
28. Oligotrophic –
29. Eutrophic –
30. Eutrophication –

Critical Thinking

Be able to read, analyze, and give complete answers to questions like these.

1. Why is clean water so important? What is an example of a disease that is transmitted by water?
2. Most of the water in the world is (saltwater / freshwater). Most of the fresh water is found in _____ and in _____.
3. You are digging a well. How do you know when you've dug past the zone of aeration into the zone of saturation in the soil?
4. You want to buy a bottle of water. Your choices are listed below. Explain the **source** and **treatment** that has been used on each.
 - a. Artesian water –
 - b. Natural spring water –
 - c. Reverse osmosis municipal water –
5. How are wetlands beneficial in managing water? List two ways.
6. Of all of the places water can be found, which one has the fastest turnover rate?
7. Why are alternative water sources such as desalination not utilized more?

8. What is the difference between point and non-point source pollution? Give an example of each.
9. What a common example of heavy metal pollution in water?
10. What are PCBs, and why are they so dangerous in water?
11. What effect does thermal pollution have on the oxygen level of water?
12. Explain how adding raw sewage or fertilizer changes an aquatic ecosystem.
13. Explain why heap leaching to extract gold is so dangerous to water supplies.
14. What are the two biggest ocean pollutants?
15. What is the Pacific trash vortex?
16. Where does most of the oil in the ocean come from?
17. What new rule for oil supertankers was passed in the Oil Pollution Act of 1990 after the Exxon-Valdez accident?
18. What specifically does the Clean Water Act address?