

Water Pollution: Chapter 19 Pages 476-499

1. Identify the common classes of water pollutants and give two examples of each:
2. Name four diseases transmitted to humans through contaminated water.
3. Distinguish between point and nonpoint sources of pollution.
4. Briefly discuss the availability of clean drinking water for the Earth's human population.
5. Draw an oxygen sag curve to illustrate what happens to dissolved oxygen levels and B.O.D. levels in streams where degradable, oxygen-demanding wastes are added.
6. Describe cultural eutrophication; discuss (a) prevention and (b) cleanup methods:
7. Discuss the major sources of nutrient-overload in lakes and ponds.
8. How does biomagnification differ from bioaccumulation?
9. Distinguish between thermal pollution and thermal enrichment.
10. Be familiar with the Great Lakes case study:
11. Be familiar with the Kesterson National Wildlife Refuge case study:
12. Be familiar with the Lake Baikal case study:
13. Discuss the water quality of coastal wetlands; include ways to protect these areas.
14. Identify and discuss the major pollutants of groundwater:
15. Explain why the cleanup of groundwater is difficult.
16. Discuss three specific ways to prevent groundwater pollution:
17. Briefly describe the major laws which protect water quality in the United States.
18. Be familiar with the Chesapeake Bay case study:
19. Be familiar with the Valdez Oil Spill:
20. Be familiar with the Woburn, Massachusetts case study:
21. Describe ways to prevent and ways to reduce surface-water pollution resulting from agriculture:
22. Describe primary, secondary, and tertiary sewage treatment(wastewater treatment).
23. Discuss some of the problems with drinking bottled water.
24. Discuss advantages and disadvantages for each of the following:
 - o Combined sewage/rainwater runoff pipes.
 - o Separate sewage/rainwater runoff pipes.
25. Describe "black mayonnaise":
26. Explain "thermal shock":
27. Define dredge spoils:
28. What is meant by "effluent"?
29. Which soil test would be most helpful in deciding where to place a septic tank?
30. Water Quality Tests: examples of; what is gained from these tests; ramifications of....
31. Be familiar with the Minamata case study:

Additional Items:

1. Coliform bacteria
2. B.O.D.
3. Indicator Species
4. *Pfiesteria piscida*
5. Discharge Trading Policy
6. Septic tank
7. Trickling Filters
8. Activated Sludge
9. Chlorination
10. Ozonation
11. Cryptosporidium