

Municipal Wastewater Treatment Facility Field Trip

1. How many people and businesses are served by this plant? _____
2. What is the maximum capacity of this plant? _____
3. Where does the water for this plant come from? _____
4. Where does the effluent water go after it has been treated? _____
5. Describe the primary treatment of wastewater at this plant. What are some other types of primary treatment that would be possible?

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7. Describe the tertiary treatment of wastewater at this plant. What are some other types of tertiary treatment that would be possible?

8. What are the resulting products of the treatment process? _____
9. What is the sludge made of? _____
10. How much sludge is produced each day? _____
11. What is done with the sludge? What else could be done with the sludge?

12. What are suspended solids?

Municipal Wastewater Treatment Facility Field Trip (continued)

13. How are suspended solids removed?

14. How do the scientists at this facility quantify the amount of suspended solids that have been removed?

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18. Which are more difficult to remove, suspended or dissolved solids?

19. What living organisms are used at this facility for bioremediation?

20. What does this facility do to encourage these organisms to grow and flourish?

Municipal Wastewater Treatment Facility Field Trip (continued)

21. What types of substances are in the wastewater that cannot be removed by this treatment facility?

22. If this facility were located in an agricultural region where large quantities of fertilizers were applied to the land, how could the wastewater facility be adapted to remove excess nitrogen and phosphorus nutrients using bioremediation?

a. Describe some ways that treatment process could benefit the environment.

b. Considering the definition of biotechnology to be "any technological application that uses biological systems, living organisms, or derivatives thereof to make or modify products or processes for specific use," how does this plant use biotechnology in the treatment of sewage?

c. Describe something interesting that you learned on this field trip that you did not expect to learn.

d. Write one additional question that you asked on this tour:
