

TEST



1. What part of a river ecosystem is this picture representing [1 point]?
2. Why is there usually a lot of **taxa richness** in these environments (2 reasons) [2 points]?
3. Is this stretch of river more likely to be part of the headwaters, midreaches, or lower reaches [1 point].
4. Name two sources of DO you can see in this picture [2 points].

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5. Identify the organism [2 points].
6. Why is it a threat to the Great Lakes region [2 points]?
7. How did it spread to the Great Lakes from Eurasia [1 point]?
8. Define a guyot [1 point]:
9. Define a seamount [1 point]:
10. What is the difference between a guyot and a seamount [1 point]?

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11. Draw a diagram of the main steps in a sewage treatment plant to treat sewage. Label the primary, secondary, and tertiary steps in the process and describe what is happening [7 points].

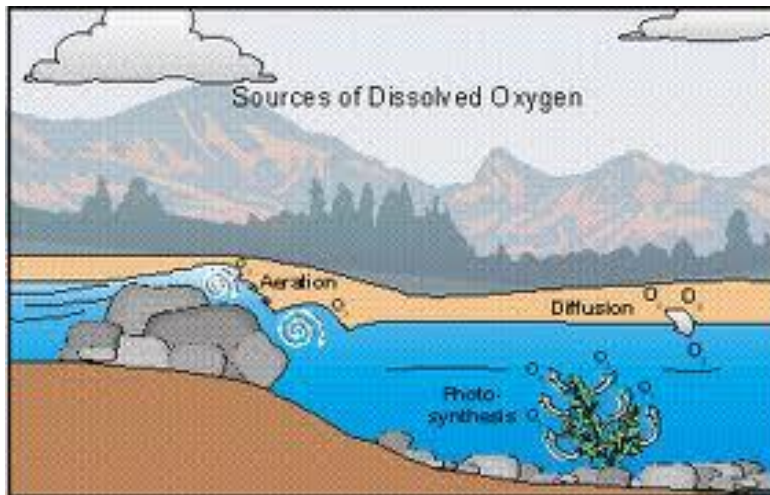
12. Draw the steps in wastewater treatment and label them. More detail = more points [7 points].

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13. List the 5 types of estuaries and describe them [10 points].

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14. Based on this picture, do you think DO is higher during the day or night? Why? [2 points]

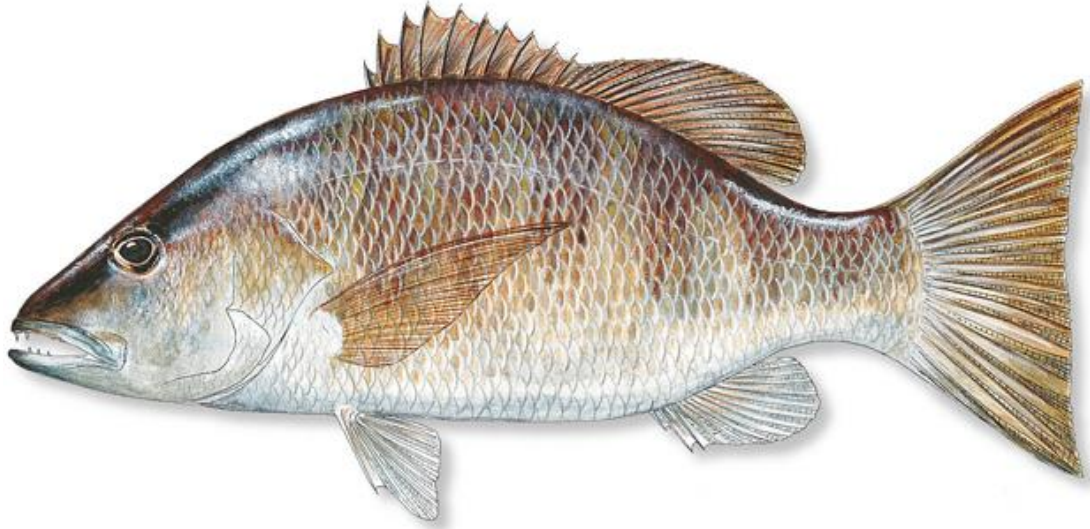
15. Why is there often a lack of dissolved oxygen in eutrophic bodies of water (2 reasons) [4 points]?

16. List the 6 main steps of the water cycle:

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ID the following organisms (1 point each):

17.



18.



19.



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20.



21.



22. Which organism above is an invasive species (name and question number) [1 point]?

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23. Where is this invasive species a problem [2 points]?

24. Which organism above is important in limiting the population of crown-of-thorns starfish (name and question #) [1 point]?

25. Why is limiting the population of crown-of-thorns starfish important [2 points]?

26. Where are crown-of-thorns starfish a problem [2 points]?

27. The organism in question 18 is a(n) [1 point]:

a. Plant

b. Animal

c. Fungus

c. Calciferous limestone

28. Describe how a hydrometer works, why it can measure salinity, and what else it can measure besides salinity [3 points]:

29. Besides a hydrometer, what other instrument can one use to measure salinity [1 point]?

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30. What specific characteristic of saltwater does this instrument use to measure the amount of salt in a water sample [2 points]?

31. Write the chemical formula for aragonite [1 point]:

32. Write the chemical formula for marl [0.5 points]:

33. Write the chemical formula for limestone [0.5 points]:

34. What happens to corals when they bleach [2 points]?

35. What is mostly responsible for coral bleaching today [2 points]?

36. Why do scientists measure fecal coliform bacteria to determine water quality?
Is fecal coliform itself dangerous to humans?