Water Testing Notesheet *by C. Kohn*

Name: Hour Date:

Date Assignment is due: *after quiz Thurs* Why late? Score: + ✓ -
 Day of Week Date If your project was late, describe why

What are some factors that lower water quality? List all that you can think of below:

How would we detect these things that lower water quality? Describe some tests of these factors:

What is a benefit and what is a drawback of using chemistry to test the water quality?

What is a benefit and what is a drawback of using the kinds of living organisms present to test the water quality?

Write 4+ questions about this topic below:

1.

2.

3.

4.

**Units**

1. Lab Safety

2. Biodiversity

3. Extinction

4. Habitats

5. Invasive Species

6. Pollution

7. Water Testing

8. Tragedy of the Commons

9. Wildlife Mgmt

10. Climate Change

11. Climate History

12. Forestry & Carbon
Sequestration

13. Survival

 **Weekly Schedule**

Monday: Notes

Tuesday: Finish Notes; begin water tests

Wednesday: Conclude Water tests

Thursday: Review & Quiz

Friday: Field trip to Fox River

**Directions**: use the accompanying PowerPoint (<http://bit.ly/water-testing>) to complete the questions below. This sheet will be due upon the completion of the PowerPoint in class. These assignments are graded on a +/√/- scale.

1. Briefly list AND describe the 7 water tests covered in this PowerPoint:

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2. Define Thermal Pollution:

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3. Cool water can hold more than warm water because are

more easily in water.
4. What are the two reasons that warm water has less oxygen than cold water?

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5. Describe four ways in which human activity can raise the temperature of aquatic ecosystems:

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1. Describe the meaning of the graph below; be sure to include the saturation point and the minimum acceptable lines in your explanation.

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1. Water with below mg/L is unsuitable for most
kinds of aquatic life.
2. What is nitrogen?

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3. In what form is nitrogen most commonly found?
4. Manure is rich in what two kinds of nitrogen? *and*

List five sources of environmental nitrates:

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1. Water with high of can cause

\_ or .
2. Describe how excess nitrates in drinking water can lead to someone’s death:

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3. What is phosphorus?

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4. Why would governments ban the use of phosphates?

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5. How many lakes in Wisconsin are officially listed as “impaired” because of phosphorus?
6. How many streams in Wisconsin are affected by excess phosphorus levels?
7. How do excessive phosphorus levels affect lake and stream food webs?

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8. At what levels do most organisms need heavy metals in their bodies?
9. Excessive levels of , however, can be to a living organism.
10. What six heavy metals are the greatest threat to living organisms?

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11. How does lead harm living organisms?

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12. How does mercury harm living organisms?

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13. What 5 impacts can elevated heavy metal levels have on living organisms?

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14. In comparison to freshwater and

aquatic are equally or less to heavy
15. The water resource should be managed for the protection of &

in order to ensure
16. What are macroinvertebrates?
17. Why are macroinvertebrates excellent indicators of water quality?

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18. What are examples of macroinvertebrates? Name 4:

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19. Where would we find macroinvertebrates?
20. A major advantage of using as quality

is that they provide evidence of over a long

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21. While can fluctuate \_

 and even to , macroinvertebrates show long-term

\_\_ in .
22. What is the main disadvantage of macroinvertebrates?

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23. How do we use macroinvertebrates to measure water quality? Describe below:

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24. What kinds of macroinvertebrates do we want to see?

Why?
25. What is pH?
26. How is pH measured?
27. What does a pH of 0-6 mean? What does a pH of 7 mean?

What does a pH of 8-14 mean?
28. What would a significant change to a waterway’s pH indicate?

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29. What causes acid rain to form?

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30. Describe 4 ways in which acid rain harms the environment:

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Unit Wrap-up *by C. Kohn*

Name: Hour Date:

Date Assignment is due: *Thursday* Why late? Score: + ✓ -
 Day of Week Date If your project was late, describe why

Write the 3 topics that you found **least easy** to understand in this unit:

1\_

2\_

3\_

What are the 5 things you **most need to review** before taking your next quiz?

1\_

2\_

3

4\_

5\_

Create 3 **high-level questions** related to this material:

1\_

2\_

3\_

List 6 **vocabulary words** that you did not know before or have almost never used before:

1\_ 2 3

4 5 6

Create a **specific strategy** for remembering a specific item from this unit:

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*A strategy is a mnemonic, rhyme, analogy, or other brain-based strategy. It is not an activity such as reviewing your notes, making cards, studying hard, etc.*