

# TEST REVIEW

Name \_\_\_\_\_

Period \_\_\_\_\_

## **\*\*First Quiz in Physical Science\*\***

### **Part 1- Match the description on the left to the term on the right.**

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|---|-------------------|
| _____ 1. A prediction or intelligent guess based on patterns in observations. | a. experiment     |
| _____ 2. An explanation of what we know about some part of nature.            | b. hypothesis     |
| _____ 3. A commonly used unit of volume in the metric system.                 | c. theory         |
| _____ 4. The basic unit of length in the metric system.                       | d. scientific law |
| _____ 5. The testing of a hypothesis.   | e. gram           |
|   | f. meter          |
|   | g. liter          |

### **Part 2- Calculate the following conversions in the metric system.**

6. 42cm = \_\_\_\_\_ km

7. 8.7g = \_\_\_\_\_ mg

8. 80ml = \_\_\_\_\_ l

9. 43 m = \_\_\_\_\_ mm

### **Part 3- Please answer the following questions in complete sentences. 1.5 points each**

10. Why could the metric system be considered more convenient to use than the English system of measurement?

11. What is the relationship between an experiment and a hypothesis?

12. Clem wants to see if ice melts more quickly on a warm day than on a cooler day. He freezes three 2-liter bottles filled with water in his freezer.

On a sunny, cloud – free, 80 degree day, he places one bottle outside, starts his stopwatch, and stares intently at the bottle until all of the ice has melted. He records the time it took for all of the ice to melt, air temperature, and cloud cover in his personal science notebook.

On a sunny, cloud – free, 60 degree day, he places the 2nd bottle outside, starts his stopwatch, and stares intently at the bottle until all of the ice has melted. He records the time it took for all of the ice to melt, air temperature, and cloud cover in his personal science notebook.

On a cloudy, 70 degree day, he places the 3rd bottle outside, starts his stopwatch, and stares intently at the bottle until all of the ice has melted. He records the time it took for all of the ice to melt, air temperature, and cloud cover in his personal science notebook.

**QUESTIONS:**

a. What is the question/problem that prompts Clem to conduct this experiment?

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b. What is the independent variable? Explain.

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c. What is the dependent variable? Explain.

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d. Is there a control in this experiment? If so, state what it is. If not, can this experiment be effective without a control? Explain.

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e. Can Clem draw a conclusion from this experiment? If so, state what it is. If not, explain why he can't.

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