**Final Test**  The were given this exact copy of this test as a study guide. I hope you reviewed it!

Your Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Final Reflection of What Was Learned

Group Members: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Comparing the Different Types of Lightbulbs Presentation**

1. Please share with me what you enjoyed doing about the research project.

2. What did you not like?

3. How can Mrs. Venn improve the project?

4. Do you feel what you learned about the differences in light bulbs is information that will benefit you or your family some day? 1= no 3= kind of 5=yes

If you answered kind of or yes, how will this benefit you?

Put a checkmark in the box that fits you.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Rarely | Sometimes | Almost Always | Always |
| I was prepared for class by bringing my packet and papers to class. |  |  |  |  |
| I had my data tables completed by the due dates. |  |  |  |  |
| I went back and corrected or added to make my parts better. |  |  |  |  |
| I worked well in my group by helping others.  |  |  |  |  |
| I was on task during class time.  |  |  |  |  |

1. Describe watts are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. The number watts for a brightness of 800 lumens is:

Incandescent- \_\_\_\_\_\_\_\_

CFL- \_\_\_\_\_\_\_\_\_\_\_\_

LED- \_\_\_\_\_\_\_\_\_\_\_

3.Why is a high amount of watts used NOT a good thing for the environment OR for cost? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Describe what lumens measure. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. The approximate number of lumens for each is:

low amount of light \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

medium amount of light \_\_\_\_\_\_\_\_\_\_\_\_\_

high amount of light \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. State the approximate cost per each kind of bulb.

Incandescent- $\_\_\_\_\_\_\_\_ CFL- \_\_$\_\_\_\_\_\_\_\_\_\_ LED- \_$\_\_\_\_\_\_\_\_\_\_

7. How long approximately does each bulb last in hours?

Incandescent- \_\_\_\_\_\_\_\_hours

CFL- \_\_\_\_\_\_\_\_\_\_\_\_\_\_hours

LED- \_\_\_\_\_\_\_\_\_\_\_\_\_hours

8. Why did we figure out the cost and energy use of the bulbs always using 24,000 hours to compare all the bulbs to? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. Approximately, how much does it cost per year for energy used (watt) for each type of bulb.

Incandescent- $\_\_\_\_\_\_\_\_ CFL- \_$\_\_\_\_\_\_\_\_\_\_ LED- \_$\_\_\_\_\_\_\_\_\_\_

10. Approximate TOTAL cost of the amount of light bulbs AND the energy used for all three bulbs in 24,000 hours (the life of the LED bulb.)

Incandescent- $\_\_\_\_\_\_\_\_

CFL- \_\_$\_\_\_\_\_\_\_\_\_\_

LED- \_$\_\_\_\_\_\_\_\_\_\_

11. Describe why the LED bulb the “best” light bulb to buy. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12. How are the colors of the bulbs different?

Soft white/ warm white \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Bright white/Neutral white \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Daylight \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

13. What are the steps to properly/safely clean up a broken CFL?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

14. Approximately how much heat (in ˚C) is given off using an 800 lumens bulb?

Incandescent- \_\_\_\_\_\_\_\_

CFL- \_\_\_\_\_\_\_\_\_\_\_\_

LED- \_\_\_\_\_\_\_\_\_\_\_

15. For the purpose of lighting a room, is giving off heat a good thing or bad? Why? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

16. Answer in the chart below some advantages/disadvantages of the bulbs.

|  |  |  |
| --- | --- | --- |
|  | Advantages | Disadvantages |
| Incandescent |  | 1.2. |
| CFL | 1.   | 1.  |
| LED | 1.2.  |  |

17. Briefly describe how light bulbs were affected by the Energy Act of 2007.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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What was the purpose of this act? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_