**Scientific Method Quiz A /20 - Answer Key**

**Matching /16**

**Match the following statements with the best response**.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Conclusion | f. | Quantitative |
| b. | Analysis | g. | Controlled Variable |
| c. | Independent Variable | h. | Procedure |
| d. | Hypothesis | i. | Question |
| e. | Qualitative  | j. | Dependent Variable |

\_\_**F**\_\_ 1. An observation that includes measurements and numbers

\_**H**\_\_\_ 2. The section in which you write your step by step instructions

\_\_**D**\_\_ 3. Your prediction of the outcome of the experiment

\_\_**A**\_\_ 4. The section is which you will explain if your prediction was correct or incorrect

\_\_**E**\_\_ 5. An observation that is a description

\_\_**G**\_\_ 6. A variable that you will keep the same throughout the experiment

**Identify the section each of these statements belongs to. Each letter may be used more than once.**

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Question | e. | Procedure |
| b. | Hypothesis | f. | Observations/Data |
| c. | Research | g. | Conclusion |
| d. | Materials |

\_\_**G**\_\_ 7. My hypothesis was incorrect because the cherry wood burned slower on the fire then the pine wood.

\_\_**E**\_\_ 8. Step1: Measure 1 teaspoon of baking soda

Step 2: Put the baking soda into the 250mL clean glass beaker

\_\_**A**\_\_ 9. What makes the sky blue?

\_\_**F**\_\_ 10. The white rat ran 10m in 37 seconds.

The brown rat ran 10m in 48 seconds

\_\_**E**\_\_ 11. Step 8: Put the bottle into a large ziploc bag and seal it

Step 9: Repeat set 8 for the can and the jar

\_**C**\_\_\_ 12. We also looked at how much each mug cost. The metal mug was $10 and the glass mug was $4.

\_\_**B**\_\_ 13. If the stone knife is the sharpest, then it will cut through the tomato the fastest.

\_\_**D**\_\_ 14. - one 2” by 2” piece of wood

- one 2” by 2” piece of rock

- one 2” by 2” piece of iron

\_\_**B**\_\_ 15. If the olive oil has the lowest smoke point, then it will be the first oil to produce smoke when heated.

\_\_**F**\_\_ 16. Some light was visible through glass 1

No light was visible through glass 2

**Short Answer /4**

Write a hypothesis for the following questions.

Will hot water or cold water dissolve a sugar cube faster? /2

**I think hot water will dissolve a sugar cube the fastest because higher temperatures make other materials melt.**

What type of pop floats best in water? /2

**I think diet coke will float best in water because it is lighter without sugar in it.**

**or**

**If diet coke floats best in water, then it will weigh less.**