**Equipment Identification Data/Answer Sheet**

Read the Directions.

Put all data and answer all questions on this laboratory sheet.

**Applying Laboratory Equipment Questions:**

1. Identify the best piece of lab equipment to do the following. ***(questions may have multiple answers but only identify one. Some equipment may not be on the back of this lab write up.)***

a.) Provide heat to conduct an experiment: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b.) Secure/Place a test tube upright: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c.) Record the temperature of a substance: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

d.) Support a flask above a lab bench: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*(This question has 3 answers)* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

e.) Measure 50.5 ml of water: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

f.) Store 200 ml of a chemical: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

g.) Transfer a hot crucible or evaporating dish: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

h.) Mix 2 chemicals in a beaker: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

i.) Pour a chemical from one beaker to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

another without spilling:

1. **Safety Review:**

What should a student do if any piece of glass laboratory equipment is chipped or cracked? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

\*Identify the name of the lab item and write the function in the chart below:

|  |  |  |
| --- | --- | --- |
| **Equip #** | **Name** | **Function** |
| **1** | Beaker | A container used to hold hot or cold liquids |
| **2** |  |  |
| **3** |  |  |
| **4** |  |  |
| **5** | Ealenmeyer flask | May be heated |
| **6** | Test tube | Many uses, can be heated |
| **7** | Mortar and pestle | To grind chemicals into a powder |
| **8** | Cruicible and cover | To heat small amounts of solid material at high temperature |
| **9** |  |  |
| **10** |  |  |
| **11** |  |  |
| **12** |  |  |
| **13** |  |  |
| **14** | Graduated cylinder | To measure volume |
| **15** | Weighing boat | To mass a chemical on a balance |
| **16** | Stirring rod | To stir combinations |
| **17** |  |  |
| **18** | Buret clamp | To hold apparatus, may be fastened to the ring stand |
| **19** |  |  |
| **20** |  |  |
| **21** |  |  |
| **22** | Iron ring | To fasten to the ring stand as a support for apparatus |
| **23** | Test tube clamps | To hold a test tube |
| **24** | A stand | A support with many uses |
| **25** | Test tube rack | To hold test tubes in an upright position |

\*The chart below is ONLY FOR STUDENTS WHO HAVE ACCESS TO LAB CLASSROOM\*

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Pick an Object 1** | **Pick an object 2** | **Pick an object 3** |
| **Write the object’s name and Mass (g) to nearest 0.1** |  |  |  |

Part A. Identify each of the pieces of laboratory equipment. Write the letter of the equipment next to the name in the table below. Then write the letter of each piece of equipment next to its picture

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| Picture 5 | Picture 14 | Screen shot 2014-07-09 at 2 |  |  |
| Screen shot 2014-07-09 at 1 | Picture 7 | Picture 5 | Picture 4 |  |
| Picture 3 | Picture 15 | Picture 6 | Picture 6 | Picture 11 |
| Picture 12 |  | Picture 5 | Picture 8 |  |
| Picture 6 |  | Screen shot 2014-07-09 at 1 | Picture 3 |  |

Part B. Using the list from part A, fill in the piece of lab equipment that would be most useful for each of the following tasks. If you are not sure look over the equipment to see which makes the most sense.

|  |  |
| --- | --- |
| **TASK** | **EQUIPMENT** |
| 1. Used to measure an exact volume of liquid |  |
| 2. Used to filter or to deliver liquid from one container to another. |  |
| 3. Used to pick up and transfer hot items (such as beakers, crucibles) |  |
| 4. Used to heat up substances on a flat surface at a constant temperature |  |
| 5. Used to heat materials with a very hot flame using a gas jet. |  |
| 6. Used to find the mass (weight) of materials electronically. |  |
| 7. Used to ignite the Bunsen burner using flint. |  |
| 8. A circular device that is attached to a ring stand to support a beaker. |  |
| 9. May be attached to a ring stand to hold a test tube |  |
| 10. A stand used in lab as a place to hold clamps |  |
| 11. Used to transfer small amounts of **solid** chemicals |  |
| 12. Used for holding multiple chemicals in test tubes in an organized manner. |  |
| 13. A triangular shaped device that can be placed on an iron ring to hold a crucible. |  |
| 14. Used to transfer **liquids** in small amounts without pouring |  |
| 15. Used to evaporate off the liquid part of a solution or to cover a beaker |  |
| 16. Used to hold liquids for boiling when a smaller opening is preferred |  |
| 17. The most common vessel for holding/pouring liquids |  |
| 18. Often placed over the iron ring to provide a flat wire stage for a beaker. |  |
| 19. Used to stir liquids |  |
| 20. A small container used to heat up/ evaporate liquids |  |
| 21. Used to check the temperature of a substance |  |
| 22. Must be worn for each lab to protect your eyes |  |