**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: **Hot plate**

b.) Secure/Place a test tube upright: Test tube rack

c.) Record the temperature of a substance: Thermometer

d.) Support a flask above a lab bench: Iron ring

*(This question has 3 answers)* Buret clamp

Ring stand

e.) Measure 50.5 ml of water: Graduated cylinder

f.) Store 200 ml of a chemical: Beaker

g.) Transfer a hot crucible or evaporating dish: Rubber tongs

h.) Mix 2 chemicals in a beaker: Erlenmeyer flask

i.) Pour a chemical from one beaker to Funnel

another without spilling:

1. **Safety Review:**

**What should a student do if any piece of glass laboratory equipment is chipped or cracked?** Tell the teacher immediately

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

|  |  |  |
| --- | --- | --- |
| **Equip #** | **Name** | **Function** |
| **1** | Wire gauze | To spread the heat of a flame |
| **2** | Lighter | To create a flame |
| **3** | Ring stand | A support with many uses |
| **4** | Hot plate | Used to heat up objects |
| **5** | Iron ring | To fasten to the ring stand as a support for apparatus |
| **6** | Tongs | To pick up and hold apparatus |
| **7** | Forceps | To pick up or hold small objects |
| **8** | Stirring rod | To stir combinations of materials to use in pouring liquids |
| **9** | Weighing boat | To mass a chemical on a balance |
| **10** | Erlenmeyer Flask | May be heated |
| **11** | Thermometer | To measure temperature |
| **12** | Evaporating Dish | As a container for small amounts of liquid being evaporated |
| **13** | Pipestem Triangle | To support the crucible |
| **14** | Crucible and cover | To heat small amounts of solid material at high temperature. |
| **15** | Rubber tongs | To pick up and hold heated apparatus |
| **16** | Test tube brush | To scrub glass apparatus |
| **17** | Test tube clamp | To hold a test tube |
| **18** | Beaker | As a container, like a cup, may be heated |
| **19** | Buret clamp | To hold apparatus, may be fastened to the ring stand |
| **20** | Spatula | To transfer solid chemicals in weighing |
| **21** | Florence flask | May be heated |
| **22** | Graduated cylinder | To measure volume |
| **23** | Glass stoppered buret | To deliver quantities of liquids |
| **24** | Measuring pipe | To deliver a precisely measured volume |
| **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 | Graduated cylinder |
| 2. Used to filter or to deliver liquid from one container to another. | Glass stoppered buret |
| 3. Used to pick up and transfer hot items (such as beakers, crucibles) | Tongs |
| 4. Used to heat up substances on a flat surface at a constant temperature | Hot plate |
| 5. Used to heat materials with a very hot flame using a gas jet. | Bunsen burner |
| 6. Used to find the mass (weight) of materials electronically. | A weight scale |
| 7. Used to ignite the Bunsen burner using flint. | Flint |
| 8. A circular device that is attached to a ring stand to support a beaker. | Iron ring |
| 9. May be attached to a ring stand to hold a test tube | Test tube clamp |
| 10. A stand used in lab as a place to hold clamps | Ring stand |
| 11. Used to transfer small amounts of **solid** chemicals | Spatula |
| 12. Used for holding multiple chemicals in test tubes in an organized manner. | Test tube rack |
| 13. A triangular shaped device that can be placed on an iron ring to hold a crucible. | Pipestem Triangle |
| 14. Used to transfer **liquids** in small amounts without pouring | Funnel |
| 15. Used to evaporate off the liquid part of a solution or to cover a beaker | Watch glass |
| 16. Used to hold liquids for boiling when a smaller opening is preferred | Erlenmeyer Flask |
| 17. The most common vessel for holding/pouring liquids | Beaker |
| 18. Often placed over the iron ring to provide a flat wire stage for a beaker. | Wire gauze |
| 19. Used to stir liquids | Stirring rod |
| 20. A small container used to heat up/ evaporate liquids | Evaporating dish |
| 21. Used to check the temperature of a substance | Thermometer |
| 22. Must be worn for each lab to protect your eyes | Goggles |