Physical and Chemical Changes Lab Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Lab Station #1- Mystery liquids

Before you begin this activity, make some observations about each of the 3 mystery liquids.

|  |  |
| --- | --- |
| Liquids | Observations |
| Liquid 1 |  |
| Liquid 2 |  |
| Liquid 3 |  |

Now, carefully open liquid 1 and pour it into the clear up at your table, fill the cup about 1/3 of the way full. Next, repeat the process with liquids 2 & 3. Record your observations below.

|  |  |
| --- | --- |
| Mixed liquid | Observations |
|  |  |

Based on your observations before and after mixing the substances what type of change has occurred? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What are 2-3 indicators that signal the result is this type of change?

*
*
*

Station # 2- Shine Bright

Fill in the data table below before, during and after the change has occurred.

|  |  |  |
| --- | --- | --- |
| Candle before | Candle during | Candle after |
|  |  |  |

 Based on your observations this change is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is some evidence during the reaction that leads you to believe this is a \_\_\_\_\_\_\_\_\_\_\_\_ change?

*
*
*

What is some evidence you observed at the end of the experiment to prove this is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ reaction?

*
*
*

Station # 3- Mystery bottle

Make some observations about the contents in the mystery bottle below.

|  |
| --- |
|  |

 Now shake the bottle gently. Do you think the components of the bottle are combined chemically? \_\_\_\_\_\_\_\_\_\_\_

Explain your answer. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Look at the equipment provided to you on your table (magnet, strainer, filter paper, and cup). Could you use these materials to separate your mixture out to the individual components? \_\_\_\_\_\_\_\_\_\_\_\_\_\_

How would you do that? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Based on the fact that you \_\_\_\_ separate out the materials in the bottle by simple means the change inside the bottle is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Station # 4- Cold & fizzy

Make observations about each of the substances on your table, **be sure to include the temperature of each**

|  |  |
| --- | --- |
| Substance | Before |
| Baking Soda |  |
| Vinegar |  |

Now carefully add some baking soda and vinegar into the bottle and cap with the balloon. (after this is done be sure to rinse the bottle and re-set the materials for the next group)

Be sure to record the temperature in Celsius. \_\_\_\_\_\_\_\_\_\_\_

Now record your observations about the substance below.

|  |
| --- |
|  |

Is this a new substance or a just combination of the ingredients? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How can you tell? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

This change is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ change.

Identify 3 indicators to support your claim.

*
*