

## **UNIT 2 - MATTER & CHANGE**

### **CLASSIFICATION OF MATTER WORKSHEET**

Check the appropriate categories for the substances listed below. All substances will have a check in more than one column.

| <u>Substance</u>                            | <u>Heterogeneous Matter</u> | <u>Homogeneous Matter</u> | <u>Pure Substance</u> | <u>Solution</u> | <u>Element</u> | <u>Compound</u> | <u>Mixture</u> |
|---|-----------------------------|---------------------------|-----------------------|-----------------|----------------|-----------------|----------------|
| lead metal                                  |                             |                           |                       |                 |                |                 |                |
| table salt (NaCl)                           |                             |                           |                       |                 |                |                 |                |
| Kool-Aid drink                              |                             |                           |                       |                 |                |                 |                |
| vegetable soup                              |                             |                           |                       |                 |                |                 |                |
| oxygen gas                                  |                             |                           |                       |                 |                |                 |                |
| distilled water                             |                             |                           |                       |                 |                |                 |                |
| concrete                                    |                             |                           |                       |                 |                |                 |                |
| pure gold                                   |                             |                           |                       |                 |                |                 |                |
| brass metal                                 |                             |                           |                       |                 |                |                 |                |
| flat 7-Up soda                              |                             |                           |                       |                 |                |                 |                |
| raw egg (cracked open)                      |                             |                           |                       |                 |                |                 |                |
| air   |                             |                           |                       |                 |                |                 |                |
| pure iron                                   |                             |                           |                       |                 |                |                 |                |
| iron rust (Fe <sub>2</sub> O <sub>3</sub> ) |                             |                           |                       |                 |                |                 |                |
| soil  |                             |                           |                       |                 |                |                 |                |
| baking soda (NaHCO <sub>3</sub> )           |                             |                           |                       |                 |                |                 |                |

### **PHYSICAL VS. CHEMICAL CHANGES 1 WORKSHEET**

Classify the following as being a chemical or a physical change.

1. Sodium hydroxide dissolves in water.
2. Hydrochloric acid reacts with potassium hydroxide to produce a salt, water, and heat.
3. A pellet of sodium is sliced in two.
4. Water is heated and changed to steam.
5. Potassium chlorate decomposes to potassium chloride and oxygen gas.
6. Iron rusts.
7. When placed in water, a sodium pellet catches on fire as hydrogen gas is liberated and sodium hydroxide forms.
8. Evaporation.

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### **HOMOGENEOUS VS. HETEROGENEOUS MATTER WORKSHEET**

Classify the following as either homogeneous or heterogeneous.

- |                                 |                            |
|---------------------------------|----------------------------|
| 1. flat soft drink (no bubbles) | 9. air (with smog)         |
| 2. chocolate chip ice cream     | 10. paint                  |
| 3. Italian salad dressing       | 11. alcohol                |
| 4. sugar                        | 12. iron                   |
| 5. soil                         | 13. beach sand             |
| 6. aluminum foil                | 14. pure air               |
| 7. black coffee                 | 15. chunky spaghetti sauce |
| 8. sugar water                  |                            |
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### **PURE SUBSTANCES VS. MIXTURES WORKSHEET**

Classify the following as pure substances or mixtures.

- |                          |                              |
|--------------------------|------------------------------|
| 1. sodium                | 11. iron                     |
| 2. water                 | 12. salt water               |
| 3. soil                  | 13. chocolate chip ice cream |
| 4. coffee                | 14. nitrogen                 |
| 5. oxygen                | 15. eggs                     |
| 6. 70% isopropyl alcohol | 16. blood                    |
| 7. carbon dioxide        | 17. table salt               |
| 8. cake batter           | 18. nail polish              |
| 9. air                   | 19. milk                     |
| 10. chicken noodle soup  | 20. soda                     |