**PHYSICAL AND CHEMICAL PROPERTIES**

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| --- | --- |
| **PHYSICAL PROPERTY**  | **CHEMICAL PROPERTY**  |
| 1. Observed during a physical change
2. observed with senses
3. determined without chemically changing matter
 | 1. indicates how a substance reacts
2. matter will be changed into a new substance after the reaction
 |

**1. Identify the following as a chemical (C) or physical property (P):**

|  |  |
| --- | --- |
| \_\_\_\_\_\_1. blue color \_\_\_\_\_\_2. density \_\_\_\_\_\_3. flammability (burns) \_\_\_\_\_\_4. solubility (dissolves) \_\_\_\_\_\_5. reacts with acid \_\_\_\_\_\_6. supports combustion \_\_\_\_\_\_7. sour taste  | \_\_\_\_\_\_8. melting point \_\_\_\_\_\_ 9. reacts with water \_\_\_\_\_\_10. hardness \_\_\_\_\_\_11. boiling point \_\_\_\_\_\_12. luster \_\_\_\_\_\_13. odor \_\_\_\_\_\_14. reacts with air  |

**2** Physical or Chemical Property? Fill in the chart using the vocabulary words provided**.**

# **Vocabulary words**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Boiling point** | **Ability to rust** | **Melting point** | **Brittleness** | **Reactivity with vinegar** |
| **elasticity** | **Flammability** | **Density** | **Transparency** | **ductility** |

**Each word is used once. Define the word when done!**

|  |  |
| --- | --- |
| **Chemical Property↓** | **Definition** |
|  | • The ability to burn |
|  | • Reacts with oxygen to produce rust |
|  |  |
| **Physical Property↓** | **Definition** |
|  | • The property of letting light pass through something |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

**3. Background:** Define the following terms.

|  |  |
| --- | --- |
| **VOCABULARY WORD** | **DEFINITION** |
| Physical Property  |  |
| Physical Change  | **Change in which the identity of the substance does NOT change**  |
| Chemical Property  |  |
| Chemical Change  |  |

# ANSWERS

**1. Identify the following as a chemical (C) or physical property (P):**

|  |  |
| --- | --- |
| \_\_\_P\_\_\_1. blue color \_\_\_P\_\_\_2. density \_\_\_C\_\_3. flammability (burns) \_\_\_P\_\_\_4. solubility (dissolves) \_\_\_C\_\_\_5. reacts with acid \_\_\_C\_\_\_6. supports combustion \_\_\_P)\_\_\_7. sour taste | \_\_\_P\_\_\_8. melting point \_\_\_C\_\_\_9. reacts with water \_\_\_P\_\_\_10. hardness \_\_\_P\_\_\_11. boiling point \_\_\_P\_\_\_12. luster \_\_\_P\_\_\_13. odor \_\_\_C\_\_\_14. reacts with air  |

**2:** Physical or Chemical Property? Fill in the chart using the vocabulary words or phrases provided**.**

## Vocabulary words

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Boiling point**  | **Ability to rust**  | **Melting point**  | **Brittleness**  | **Reactivity with vinegar**  |
| **elasticity**  | **Flammability**  | **Freezing point**  | **Transparency**  | **ductility**  |

**Each word is used once. Define the word when done!**

|  |  |  |
| --- | --- | --- |
| **Chemical Property↓**  |  | **Definition**  |
|  | • flammability |  |  |  | • The ability to burn |  |
|  | • Ability to rust |  |  | • Reacts with oxygen to produce rust |  |
|  | • Reactivity wit | h vinegar |  |  | • Reacts with vinegar to produce new substances |  |
| **Physical Property↓**  |  | **Definition**  |
|  | • transparency |  |  | • The property of letting light pass through something |  |
|  | • Boiling point |  |  |  | • Temperature at which a substance goes from liquid to gas |  |
|  | • Melting point |  |  | • Temperature at which a substance goes from solid to a liquid |  |
|  | • Brittleness |  |  |  | • Tendency to crack or break |  |
|  | • Ductility |  |  |  | • Ability to bend without breaking |  |
|  | • Elasticity |  |  |  | • Ability to be stretched or compressed then return to original size |  |
|  | • Density |  |  |  | • Mass per unit volume |  |
| **VOCABULARY WORD**  | **DEFINITION**  |
| Physical Property  |  | **Characteristics of matter that can be seen through direct observation such as**  |  |
| **density, melting point, and boiling point**  |  |
| Physical Change  |  | **Change in which the identity of the substance does NOT change** |  |
| Chemical Property  |  | **Characteristic of matter that can only be observed when one substance changes**  |  |
| **into a difference substance, such as iron into rust**  |  |
| Chemical Change  |  | **Transforms one type of matter into another kind, which may have different**  |  |
| **properties.** |  |