Physical Science – Ms. Newburn Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Period \_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Ch. 6 Review B**

*If the statement is true, write* **true***. If it is false, change the underlined word(s) to make the statement true.*

|  |  |
| --- | --- |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **1.** Kinetic energy is required to start a chemical reaction. |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **2.** The exothermic reaction between baking soda and vinegar requires a continuous heat source. |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **3.** You can speed up a chemical reaction by increasing the number of molecules of the reactants. |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **4.** You can slow down a chemical reaction by decreasing the temperature. |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **5.** Your body’s cells have biological inhibitors that lower the activation energy required for chemical reactions to take place. |

*Balance the equations on the lines below. State whether the reaction is a synthesis, decomposition, acid-base or single or double replacement reaction.*

|  |  |  |
| --- | --- | --- |
| **Given Equation** | **Balanced Equation** | **Type of Reaction** |
| **6.** CO + H2 🡪 C8H18 + H2O | **a. \_\_\_\_**CO + \_\_\_\_H2 🡪 \_\_\_\_C8H18 + \_\_\_\_H2O | **b.** |
| **7.** Al + HCl 🡪 AlCl3 + H2 | **a. \_\_\_\_**Al + \_\_\_\_HCl 🡪 \_\_\_\_AlCl3 + \_\_\_\_H2 | **b.** |
| **8.** FeO3 + CO 🡪 Fe + CO2 | **a. \_\_\_\_**FeO3 + \_\_\_\_CO 🡪 \_\_\_\_Fe + \_\_\_\_CO2 | **b.** |

Physical Science – Ms. Newburn Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Period \_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Ch. 6 Review B**

*If the statement is true, write* **true***. If it is false, change the underlined word(s) to make the statement true.*

|  |  |
| --- | --- |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **1.** Kinetic energy is required to start a chemical reaction. |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **2.** The exothermic reaction between baking soda and vinegar requires a continuous heat source. |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **3.** You can speed up a chemical reaction by increasing the number of molecules of the reactants. |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **4.** You can slow down a chemical reaction by decreasing the temperature. |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **5.** Your body’s cells have biological inhibitors that lower the activation energy required for chemical reactions to take place. |

*Balance the equations on the lines below. State whether the reaction is a synthesis, decomposition, acid-base or single or double replacement reaction.*

|  |  |  |
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| **Given Equation** | **Balanced Equation** | **Type of Reaction** |
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| **7.** Al + HCl 🡪 AlCl3 + H2 | **a. \_\_\_\_**Al + \_\_\_\_HCl 🡪 \_\_\_\_AlCl3 + \_\_\_\_H2 | **b.** |
| **8.** FeO3 + CO 🡪 Fe + CO2 | **a. \_\_\_\_**FeO3 + \_\_\_\_CO 🡪 \_\_\_\_Fe + \_\_\_\_CO2 | **b.** |

*Fill in the blank to complete the statement. Use the word bank. Note some words will not be used and others may be used more than once.*

Conservation of matter reactants products catalyst replacement

decomposition combustion open system closed system coefficient

**9.** In a chemical equation, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are written as chemical formulas.

**10.** The total mass of the reactants in a chemical reaction must equal the total mass of the products, in keeping with the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**11.** A burning match is an example of a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, in which matter can enter from or escape to the surroundings.

**12.** A(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ tells how many atoms or molecules of a reactant or a product take place in a chemical reaction.

**13.** Hydrogen peroxide (H2O2) breaks down into water and oxygen gas is a chemical reaction classified as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**14.** Explain the meaning of *physical property.* Give several examples. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

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

**15.** Explain the meaning of *chemical property.* Give several examples. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

**16.**  List what things you might observe if a chemical reaction occurred.

*Fill in the blank to complete the statement. Use the word bank. Note some words will not be used and others may be used more than once.*

Conservation of matter reactants products catalyst replacement

decomposition combustion open system closed system coefficient

**9.** In a chemical equation, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are written as chemical formulas.

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

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

**15.** Explain the meaning of *chemical property.* Give several examples. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

**16.**  List what things you might observe if a chemical reaction occurred.