**14.2 Guided Reading**

**Integrated Science – Matter Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Per:\_\_\_\_**

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_reactions occur when two or more substances are combined to form a new compound.
2. A special type of addition reaction that creates polymers is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_reaction breaks down compounds into two or more smaller compounds.
4. In decomposition reactions, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_is required to begin the reaction.
5. What happens in a single displacement reaction?
6. What happens in a double displacement reaction?
7. In one type of combustion reaction, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is combined with oxygen to create heat and light.
8. Complete the following table to review the different types of reactions.

|  |  |  |
| --- | --- | --- |
| **Reaction** | **General Equation** | **Example** |
| Addition |  | 2 H2O + O2 🡪 2 H2O |
|  | AB 🡪 A + B |  |
|  | A + BC 🡪 AC + B |  |
| Double Displacement |  | Pb(NO3)2 + 2 KI 🡪 PbI2 + 2 KNO3 |
|  | Carbon compound + O2 🡪  CO2 + H2O |  |

9. Write the reaction that would occur in cars of the future. What is the final product?