**Chemistry Revision: Describing Chemical**

Mastery Matrix Points

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| --- |
| Write a word equation for a given reaction |
| Write a balanced symbol equation for a given reaction |
| Include appropriate state symbols in an equation |

Key Knowledge

Rules for chemical equations:

* Use an \_\_\_\_, never an equals sign.
* Show the reactants on the \_\_\_\_ hand side.
* Show the products on the \_\_\_\_ hand side.
* Use only words for a \_\_\_\_equation and symbols for a \_\_\_\_\_\_ equation.
* All lower case for word equations and correct case for symbols.

State symbols:

Solid –

Liquid -

Gas –

Aqueous (dissolved)-

*Note:* Most salts are usually aqueous.

General word equations

metal + oxygen 🡪

metal + acid 🡪

metal oxide + acid 🡪

metal hydroxide + acid 🡪

metal carbonate + acid 🡪

metal + halogen 🡪

metal + water 🡪

|  |  |
| --- | --- |
| *Acid* | *Formula* |
| Hydrochloric acid |  |
| Sulfuric acid |  |
| Nitric acid |  |

**Reactions**

Understanding and Explaining

1. Complete word and symbol equations for these reactions. Make sure the chemical equations are balanced, and include state symbols.
2. magnesium + hydrochloric acid 🡪
3. calcium carbonate + hydrochloric acid 🡪
4. potassium + water 🡪
5. sodium + sulfuric acid 🡪
6. sulfuric acid + copper oxide 🡪
7. magnesium + oxygen 🡪
8. sodium hydroxide + hydrochloric acid 🡪
9. zinc + hydrochloric acid 🡪
10. potassium + iodine 🡪
11. potassium + oxygen 🡪
12. sodium +water 🡪
13. sodium + chlorine 🡪
14. copper carbonate + sulfuric acid 🡪