Neutralization: The Acid/Base Matching Game

*Write the general chemical equation for a Neutralization Reaction:*

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|  |

**Example**:

*Write balanced chemical equations for these neutralization reactions.*

*Be sure to: 1) balance the reaction 2) include phases*

\_\_\_\_ Ba(OH)2(aq) + \_\_\_\_\_ HCl (aq) 🡪

\_\_\_\_ Al(OH)3 (aq) + \_\_\_\_ H2SO4 (aq) 🡪

1. Go back and circle all of the strong acids.

2. Go back and put a box around all of the strong bases.

**Directions for Game**:

1. Shortest player goes first.

2. Take turns finding an acid/base match. You can only flip over two cards per turn. If you get an acid/base match, then keep the cards and write down the acid and base in your table. If you do not get an acid/base match, flip the cards back over and let the next player go.

3. Once you have found 7 acid/base matches for your table, you are done with the game. First to find their 7 pairs wins and will receive a prize.

4. Fill in the table by identifying the **products** that will form from your acid/base match. Make sure your equations are **balanced** (aka write coefficients in front).

5. Then write the IUPAC (proper) names of each acid and base underneath their formulas (Use Tables K and L).

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| **REACTANTS** | **PRODUCTS** |
| **ACID + BASE 🡪 H2O + Salt** | |
| 1. |  |
| 2. |  |
| 3. |  |
| 4. |  |
| 5. |  |
| 6. |  |
| 7. |  |

Questions:

1. Go back and circle all of the strong acids (Use Table K).

2. Go back and put a box around all of the strong bases (Use Table L).

3. What do you think the difference between a strong acid and a weak acid is?

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4. What are the 2 products that form from a neutralization reaction? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Why is a reaction between an acid and a base called a neutralization reaction? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*\*Have your teacher sign your completed paper for credit. \_\_\_\_\_\_\_\_\_\_\_\_\_*