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| Group Name: |  |

**Chemical Reactions**

Worksheet

## **LibreTexts page:** [**4: Chemical Reactions**](https://chem.libretexts.org/Courses/University_of_Arkansas_Little_Rock/Chem_1402%3A_General_Chemistry_1_%28Belford%29/Laboratory/04%3A_Experiment_4_-_Chemical_Reactions)

## **(**<https://chem.libretexts.org/link?214153>)

**Please don’t edit, rearrange or delete anything that is already in this document. Just fill in the answers.**

**Shortcuts for superscripts and subscripts:**

****

**Part I**

Watch the videos posted in the Procedure section. Write your observations and equations below. **Use subscripts and superscripts.**

1. **Magnesium + hydrochloric acid**

Observations:

|  |
| --- |
|  |

Molecular equation:

|  |
| --- |
|  |

Ionic equation:

|  |
| --- |
|  |

Net ionic equation:

|  |
| --- |
|  |

1. **Copper(II) sulfate + sodium phosphate**

Observations:

|  |
| --- |
|  |

Molecular equation:

|  |
| --- |
|  |

Ionic equation:

|  |
| --- |
|  |

Net ionic equation:

|  |
| --- |
|  |

1. **Cadmium (II) chloride + sodium sulfide**

Observations:

|  |
| --- |
|  |

Molecular equation:

|  |
| --- |
|  |

Ionic equation:

|  |
| --- |
|  |

Net ionic equation:

|  |
| --- |
|  |

1. **Nickel (II) chloride and sodium carbonate**

Observations:

|  |
| --- |
|  |

Molecular equation:

|  |
| --- |
|  |

Ionic equation:

|  |
| --- |
|  |

Net ionic equation:

|  |
| --- |
|  |

1. **Lead (II) nitrate and sodium sulfide**

Observations:

|  |
| --- |
|  |

Molecular equation:

|  |
| --- |
|  |

Ionic equation:

|  |
| --- |
|  |

Net ionic equation:

|  |
| --- |
|  |

1. **Nickel (II) chloride and sodium phosphate**

Observations:

|  |
| --- |
|  |

Molecular equation:

|  |
| --- |
|  |

Ionic equation:

|  |
| --- |
|  |

Net ionic equation:

|  |
| --- |
|  |

1. **Silver nitrate and sodium carbonate**

Observations:

|  |
| --- |
|  |

Molecular equation:

|  |
| --- |
|  |

Ionic equation:

|  |
| --- |
|  |

Net ionic equation:

|  |
| --- |
|  |

**Part II**

Write your observations (what outcome would you expect) and equations below. Use subscripts and superscripts. There are no videos for these reactions. Use the solubility rules to predict the outcome.

1. **Hydrochloric acid + sodium hydroxide**

Observations:

|  |
| --- |
| **Heat is released** |

Molecular equation:

|  |
| --- |
|  |

Ionic equation:

|  |
| --- |
|  |

Net ionic equation:

|  |
| --- |
|  |

1. **Ammonium chloride + sodium hydroxide**

Observations:

|  |
| --- |
|  |

Molecular equation:

|  |
| --- |
|  |

Ionic equation:

|  |
| --- |
|  |

Net ionic equation:

|  |
| --- |
|  |

1. **Copper(II) sulfate + sodium carbonate**

Observations:

|  |
| --- |
|  |

Molecular equation:

|  |
| --- |
|  |

Ionic equation:

|  |
| --- |
|  |

Net ionic equation:

|  |
| --- |
|  |