

# Types of Reactions Test (Science 10)

Summary:

- 6 types of chemical reactions, predicting their products
- Acids and bases (neutralization reactions, properties of acids and bases, pH indicators, concentration calculations)

## LEARNING MAP CRITERIA:

Relevance	Extending	Proficient	Developing	Emerging
<b>Reaction Types</b>  <input checked="" type="checkbox"/>	Identify types of reactions and predict the products of chemical reactions consistently and accurately.	Identify types of reactions and predict the products, most of the time.	Identify types of reactions when given a skeleton equation or balanced chemical equation.	Recognize that certain combinations of chemicals can react to form new chemicals, in a chemical reaction.
<b>Acids, Bases, and Neutralization Reactions</b>  <input checked="" type="checkbox"/>	[same as Proficient, but to a higher level of accuracy]	<p>Use information from various pH indicators to solve pH problems and determine the identity of unknown substances.</p> <p>Draw diagrams showing the relative concentration of H<sup>+</sup> and OH<sup>-</sup> ions at various pHs.</p> <p>Use the pH of a substance to calculate and compare the relative concentrations of H<sup>+</sup> and OH<sup>-</sup> ions in solution (see examples on pg 170 of tb).</p>	<p>Use the pH of a substance to identify it as an acid, base, or neutral.</p> <p>Based on its chemical formula, identify a compound as an acid, base, or salt.</p> <p>List some of the properties of acids and bases.</p> <p>Describe the colour that a pH indicator will appear in a solution of a given pH.</p>	Know that the chemical formula of water is H <sub>2</sub> O.

## VOCABULARY:

*(Disclaimer: This is not meant to be an exhaustive list. Vocabulary words may appear on the test that are not in this list.)*

- |                     |                      |
|---------------------|----------------------|
| - Metal             | - Decomposition      |
| - Non-metal         | - Single Replacement |
| - Ionic compound    | - Double Replacement |
| - Covalent compound | - Combustion         |
| - Element           | - Neutralization     |
| - Diatomic element  | - Acid               |
| - Subscript         | - Base               |
| - Charge balancing  | - Salt               |
| - Prefix            | - pH                 |
| - Synthesis         | - pH indicator       |

## **PRIMARY STUDY MATERIAL:**

Types of Reactions:

- Types of Reactions Powerpoint
- Notes Package Handout
- Textbook section 2.4
- Workbook pgs 108-127
- Green workbook pages (chapter 6)
- Acids and Bases:
  - o All About That Base Notes package
  - o Acids and Bases Lab