

**Title: Recognizing Chemical Reactions**

**Introduction:** To know whether or not a chemical reaction has taken place, you have to be able to recognize the signs! In this activity, you'll observe several different chemical reactions and start a working list of things to look for to determine if a chemical reaction has occurred.

**Materials:**

200 mL beaker

phenolphthalein solution

(1% acidified)

small piece of an antacid  
tabletferric ammonium sulfate  
solution

sodium carbonate solution

graduated cylinder

tap water

**Procedure:**

1. GOGGLES AND APRON! Pour about 50 mL of tap water into a beaker.
2. Add several drops of phenolphthalein to the beaker and record your observations in the data table below. (Phenolphthalein is an acid/base indicator.)
3. Drop the piece of antacid tablet into the beaker and record your observations in the data table. There should be more than one observations...use all of your senses but taste!
4. Add 20 mL of ferric ammonium sulfate solution to the beaker and record your observations.
5. Add 20 mL of sodium carbonate solution to the beaker. Observe the bottom of the beaker closely and record your observations in the data table.
6. Dispose of your solution down the drain with plenty of water. Rinse your beaker and graduated cylinder well with water, put them back in your drawer, and clean up your lab counter.

**Data:**

Data Table 1: (insert descriptive title)

Substance Added	Observations
phenolphthalein	
antacid tablet	
ferric ammonium sulfate	
sodium carbonate	

**Analysis:**

1. You observed several different chemical reactions in this activity. One the back, summarize the changes that may occur in a chemical reaction.

2. What are some indicators of chemical change you did not observe in this lab?

3. How trustworthy is color change? Does it always indicate a chemical change?

4. What are characteristics of chemical change?

**Conclusion:**