

LESSON  
68

ACTIVITY

# Toxic Reactions Chemical Equations

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

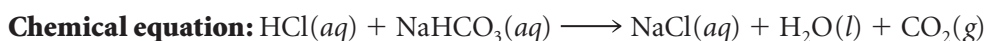
## Purpose

To interpret chemical equations involving toxins.

## Materials

- Toxic Reactions cards

## Part I: Interpreting Chemical Equations



**Interpretation:** A solution of hydrochloric acid reacts with a solution of sodium bicarbonate to produce a solution of sodium chloride, water, and bubbles of carbon dioxide gas.

Fill in the table based on the equation and interpretation.

Symbol	What it represents
HCl	
(aq)	
+	
NaHCO <sub>3</sub>	
→	

Symbol	What it represents
NaCl	
H <sub>2</sub> O	
(l)	
CO <sub>2</sub>	
(g)	

1. What are the reactants in this chemical reaction? What are the products?
2. What visible evidence do you have that CO<sub>2</sub>(g) was formed? That NaCl(aq) was formed?
3. What does the chemical equation tell you that your observations do not?
4. Predict what you would observe if you heated the liquid until all the water was gone.

## Part 2: Toxins

1. Work with your partner to sort the Toxic Reactions cards into four groups based on some pattern or similar features you discover. Describe the four groups.
2. What are some substances that toxins react with in the body?
3. What do the toxins that affect the eyes, nose, throat, and lungs have in common?
4. List the compounds that are the *products* of reactions that cause blood acidosis.
5. What do the substances that cause nerve damage have in common?
6. Identify the solids that result in kidney stones.
7. **Making Sense** Describe what information a chemical equation gives you.