Forming a Precipitate

Binder page

Objective:

- 1. To able to explain that for a chemical reaction to take place, the reactants interact, bonds between certain atoms in the reactants are broken, the atoms rearrange, and new bonds between the atoms are formed to make the products.
- To be able to explain that this definition also applies to the production of a solid called a precipitate.

Demonstration:

Would you consider adding a sodium carbonate solution to a magnesium sulfate solution a chemical reaction?

Why or why not?

Activity:

Question to Investigate:

How do you know when a precipitate is formed in a chemical reaction?

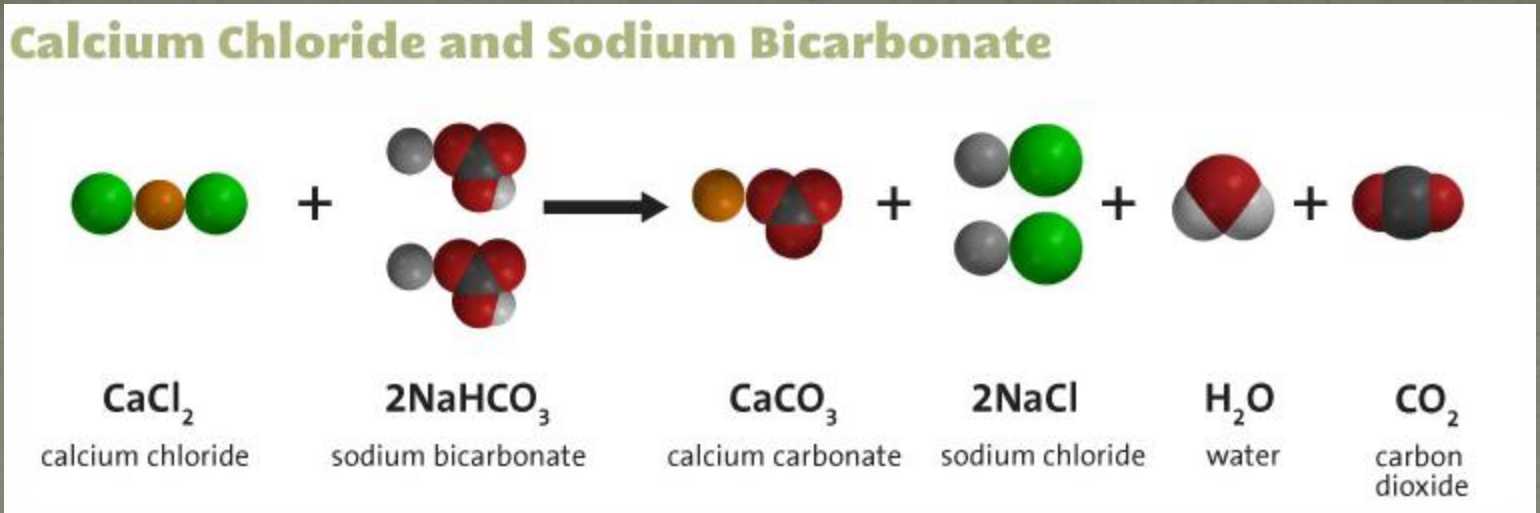
Do BOTH activities

15 minutes

What did you observe when you mixed the baking soda solution and the calcium chloride solution?

Did you observe a precipitate?

Do you think this was a chemical reaction? Why?



What products of the reaction do you recognize?

Look at the product side of the chemical equation. What gas is produced in the chemical reaction?

What do you think is the precipitate?

How many of each type of atom is on the reactant side of the equation?

$CaCl_2$	$2NaHCO_3$	$CaCO_3$	$2NaCl$	H_2O	CO_2
calcium chloride	sodium bicarbonate	calcium carbonate	sodium chloride	water	carbon dioxide

How many of each type of atom appears on each side of the chemical equation?		
Atom	**Reactant side**	**Product side**
Calcium (Ca)	1	
Chlorine (Cl)	2	
Sodium (Na)	2	
Hydrogen (H)	2	
Carbon (C)	2	
Oxygen (O)	6	

Key Concepts

- The ions or molecules in two ***solutions*** can react to form a ***solid.***

- A solid formed from two solutions is called a ***precipitate.***