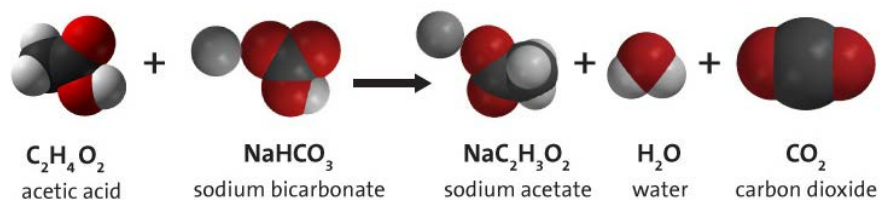


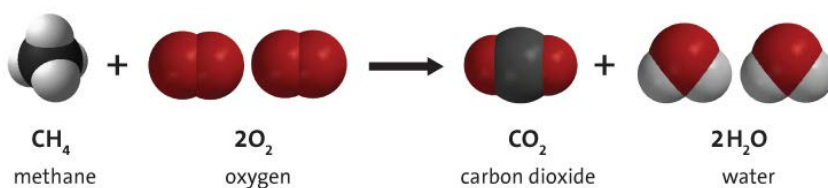


One example of a common chemical reaction is one between vinegar (acetic acid) and baking soda (sodium bicarbonate). Here is the chemical equation showing models of the molecules involved in the reaction.



If you count up the number of each type of atom on the left of the arrow (reactants), you'll see that there are an equal number on the right (products), just bonded in different arrangements. No new atoms are created during the reaction and no existing atoms disappear or are destroyed, so mass is conserved.

Another common reaction is methane reacting with oxygen to heat homes and gas stoves.



Again, you can see that all the atoms on the left in the reactants also appear on the right in the products, just rearranged. Since no atoms were created or destroyed in the reaction, mass is conserved.