

Name: _____ Date: _____
IPC

Class Notes



Balancing Chemical Equations

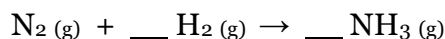
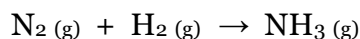
The **Law of Conservation of Mass** tells you that the combined masses of the products must equal the combined masses of the reactants. This idea is the guiding principle behind balancing. You must be sure that the elements on the left equal the elements on the right in number of atoms or ions. You do this by **changing coefficients only**.

CAVEAT: YOU CANNOT CHANGE THE SUBSCRIPTS.

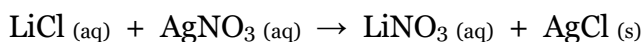
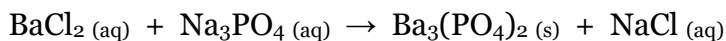
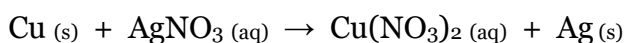
Steps to Balancing a Chemical Equation:

1. Start with the most complex substance and adjust coefficients to balance.
2. Leave free elements till last. (H₂, Na, Al, etc.)
3. Always check the other substances when you're done.
4. Treat polyatomic ions as a unit.

Example



Practice (always rewrite the equation)



**"Always do right! This will gratify some people and astonish the rest.
-- Mark Twain**