



# Notes: Balancing Chemical Equations

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8th grade science

(adapted from Mrs. Mitchell's notes)



# Law of Conservation of Matter:

- Matter is not created or destroyed; matter is conserved.
  - “Conserved” means that in a chemical reaction, the same number of atoms will exist on both sides of the equation (although probably rearranged).



# Chemical Reactions

- In a chemical reaction,
  - The reactants are what we start with (left side)
  - The products are what we end up with (right side)

Reactants -----> Products



## Steps to Balancing Chemical Equations

- 1) Draw a T-chart right under the reaction (show all your work)
- 2) Determine the number of each type of atom (in other words, determine how many atoms of each element there are)
- 3) Add coefficients\* to the equation to get the same number of atoms on each side of the equation



## Reminders

- \*Coefficients = Numbers that go in front of each type of atom (as needed)
- DO NOT add or change any subscripts (the little number following any atomic symbols)
  - For example CO is carbon monoxide but if you place a 2 as a subscript after the O, carbon dioxide is produced which has different properties.