



HANSRAJ MODEL SCHOOL

PUNJABI BAGH, NEW DELHI

CLASS - X

SUBJECT - Chemistry
**TOPIC – Chemical Reactions
& Equation- Module 1**

#OnlineClassesinCoronaliday

What are chemical reactions ?

- A chemical reaction is a process where the reactant gets converted into a product which may be under an influence of a catalyst .
- A word-equation shows change of reactants to products through an arrow placed between them.
- The reactants are written on the left-hand side (LHS) with a plus sign (+) between them. Similarly, products are written on the right-hand side (RHS) with a plus sign (+) between them.
- The arrowhead points towards the products, and shows the direction of the reaction.



How do we identify a chemical reaction?

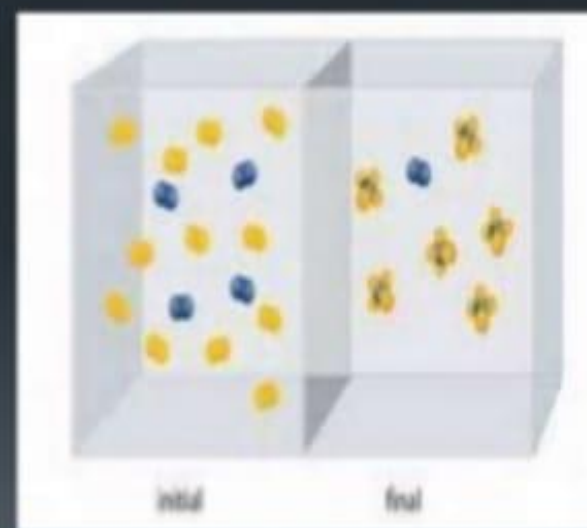
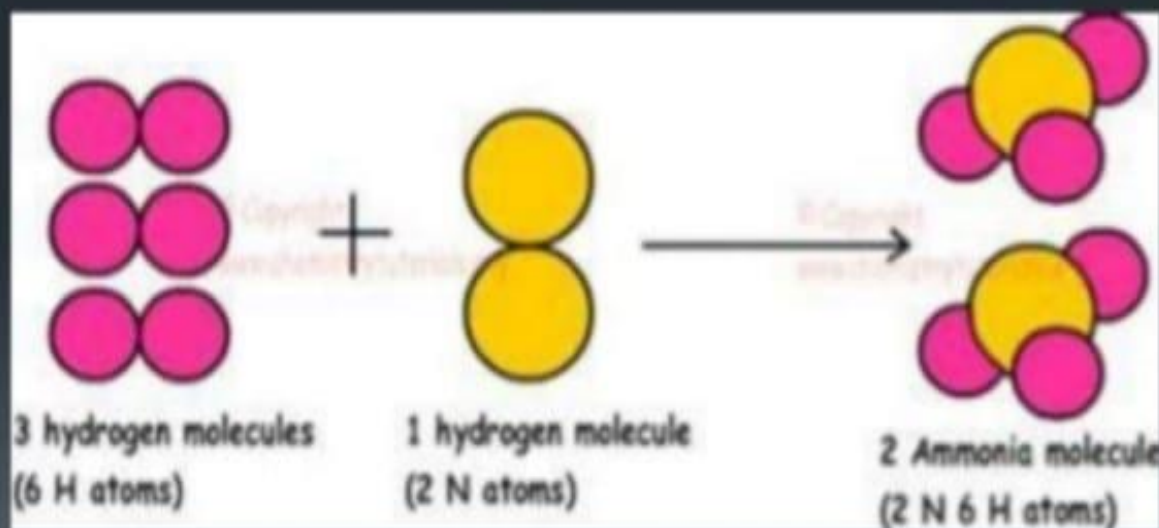
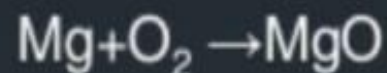
- A chemical reaction is identified by any of these 4 factors
 - Change in state
 - change in colour
 - evolution of a gas
 - Change in temperature.
- According to law of conservation of mass matter can neither be created nor be destroyed in a chemical reaction.



ANTOINE LAVOISIER
INTRODUCED LAW
OF CONSERVATION
OF MASS

Writing a chemical reaction

- A chemical equation represents a chemical reaction. If you recall formulae of magnesium, oxygen and magnesium oxide, the above word-equation can be written as –



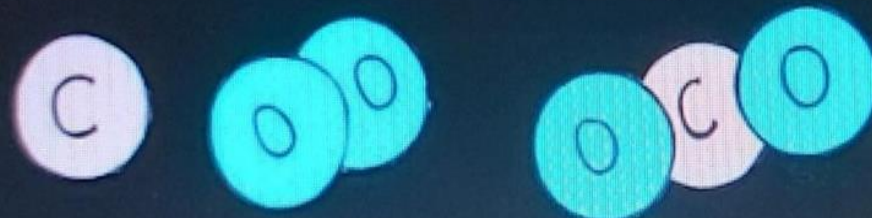
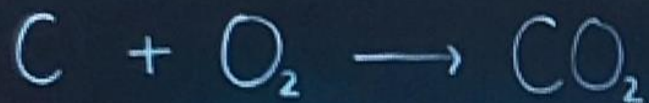
Chemical Equations

The method of representing a chemical reaction with the help of symbols and formulas of the substances involved in it is known as a chemical equation.

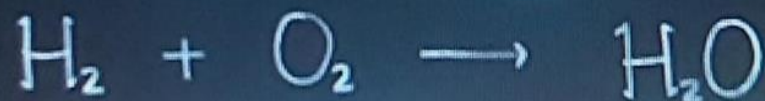


Balanced and Unbalanced Chemical Equations

How TO BALANCE A CHEMICAL EQ?? i



Balanced



Unbalanced

Balance Chemical Equation

A balanced chemical equation has an equal number of atoms of different elements in the reactants and products.

Eg. Zinc metal reacts with dilute sulphuric acid to form zinc sulphate and hydrogen gas.

