

## SUMMARY

1. Some high fat foods such as potato chips are packaged in materials that protect them from light and oxygen and the containers are flooded with nitrogen to further exclude oxygen.
2. At times, to avoid the presence of oxygen altogether, vacuum packaging is used in some processed foodstuff.
3. In a physical change the shape, size, appearance or state of a substance may alter, but it is a temporary change, which is usually reversible. No new substance is formed, hence no change in the mass of the substance and no energy changes are involved.
4. In a chemical change, new substances are formed and energy changes are involved. There is a change in mass during the reaction and a permanent change takes place.
5. The chemical formula of a substance is the symbolic representation of the actual number of atoms present in one molecule of that substance.
6. A complete chemical equation represents the reactants, products and their physical states symbolically and is a balanced account of a chemical transaction.
7. A chemical equation is balanced so that the numbers of atoms of each type involved in a chemical reaction are the same on the reactant and product sides of the equation.
8. Equations must always be balanced. Equations are balanced by the hit and trial method.
9. The rate of a chemical reaction depends on temperature (heat), presence of light, presence of catalyst, application of pressure and the passage of electric current.
10. Chemical reactions that proceed with evolution of heat energy, that is, in which heat is given out along with the product, are called exothermic reactions.
11. Chemical reactions that proceed with the absorption of heat energy are called endothermic reactions.
12. Combination or synthesis is a reaction in which a new single compound is formed by the direct union of two or more substances.
13. Decomposition reactions are opposite to combination reactions. In a decomposition reaction a compound breaks down into two or more simple substances by the application of heat or electricity.

14. In a displacement reaction an atom or group present in a compound is replaced by another atom or group, without bringing any change in the structure of the molecule or compound.
15. In double displacement reactions two different atoms or groups of atoms (ions) of two compounds exchange their places and give rise to two new compounds.
16. In a precipitate reaction insoluble salts are produced.
17. A reversible reaction is one that can proceed in both the directions depending upon the conditions of the reaction.
18. A reversible thermal decomposition reaction is called thermal dissociation.
19. Oxidation is a reaction in which oxygen is added to a substance, or hydrogen is removed from a substance.
20. Reduction is a reaction in which oxygen is removed from a substance, or hydrogen is added to a substance.
21. Oxidation reactions cause corrosion on metals and rancidity on food stuffs.

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