

# VIDYA BHAWAN BALIKA VIDYAPEETH

## STUDY MATERIAL SCIENCE

### CLASS-VIII

Date : 06/09/2020

Teacher : Poonam Kumari

## ▶ 6. Combustion

### **Combustible Substances:**

The substances which burn in the presence of air are called combustible. Oxygen in the air is essential for combustion.

**Non Combustible Substances :** The substances which does not burn in the presence of air are called combustible substances.

**Combustion:** A chemical process in which a substance reacts with oxygen to give off heat is called combustion. During the process of combustion, heat and light are given out. The process of combustion cannot take place till the two necessary criteria are met-a sufficiently high temperature and an adequate supply of air or oxygen.

Each material has a specific temperature at which it can catch fire. The lowest temperature for every combustible material that needs to be reached before the material can be ignited is called its **ignition temperature**. Unless this temperature is reached, a combustible substance will not ignite or catch fire. Inflammable substances have very low ignition temperature.

Water contained in a paper cup can be safely heated over a flame without any damage to the cup because the ignition temperature of paper is about 230°C. As long as there is water in the cup, the heat supplied to the paper cup is transferred to water by conduction and the temperature does not rise above 100°C, which is much below the ignition temperature of paper. Hence, the paper cup does not burn. However, if the heating is continued and the water is heated to its boiling temperature, the paper cup will catch fire as soon as see the water boils off.