

# VIDYA BHAWAN BALIKA VIDYAPEETH

## STUDY MATERIAL SCIENCE CLASS-VIII

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### ▶ 6. Combustion

Safety matches, which were invented in 1844, are so named as they do not catch fire spontaneously by friction. They have to be struck against a special surface in order to be ignited.

#### **Constituents :**

- i. The match head contains a mixture of antimony trisulphide, potassium chlorate, powdered glass and a binder made of glue and starch.
- ii. The striking surface is coated with a mixture of powdered glass and red phosphorus.
- iii. When a safety match is struck, the glass-on-glass friction generate heat, converting a small amount of red phosphorus to white phosphorus vapour.
- iv. The white phosphorus ignites sponta us, decomposing potassium chlorate and liberating oxygen At this point, the sulphur starts to burn, which ignites the wood of the match.

#### **Fuels :**

When a combustible substance burns, heat is produced, which can be used in a variety of ways for domestic and industrial purposes. Such substances that produce heat are called fuels. Common fuels include wood, coal, petrol, kerosene, cooking gas, etc. But all fuels are not alike and differ widely in the way they burn and in the amount of heat they produce. Some fuels leave behind residues after burning. For example, wood and coal when burnt leave behind ash, which has to be disposed of.