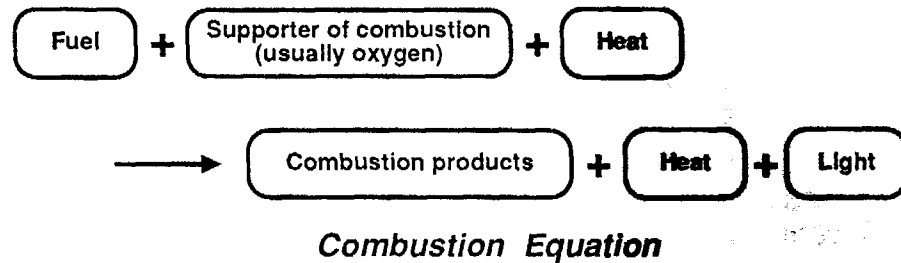
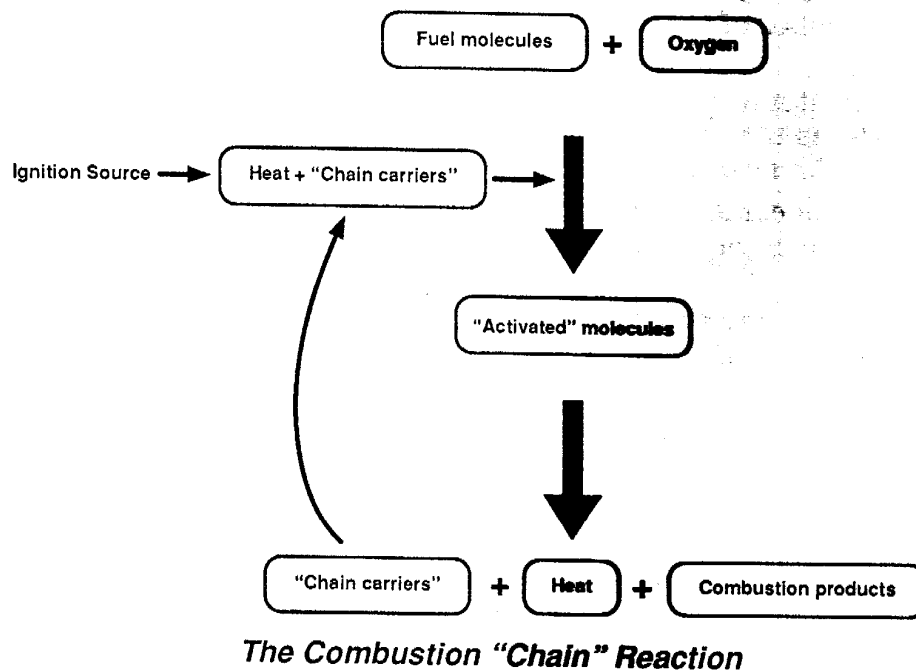


The Nature of Combustion

Combustion is a rapid **chemical reaction** (“oxidation”) in which a **fuel** combines with a **supporter of combustion** (usually oxygen). This chemical reaction releases heat and light (flame). The heat produced by combustion is sufficient to maintain the reaction.



Heat must be applied to the fuel in order to activate the molecules so the fuel can combine with oxygen. The more finely divided the fuel is, the more easily this occurs. E.g. dust, powders, vapours, gases.



The combination of the “activated molecules” with oxygen (at the flame front) releases heat and produces more “chain carriers”. These can then activate further fuel and oxygen molecules and so a **chain reaction** proceeds.

Thus combustion where flame is produced, can be seen as having four necessary factors: fuel, heat, oxygen and uninhibited combustion chain reactions (a Tetrahedron).