

What is happening when fire burns? What is fire?

One definition of fire is this from the 10th Edition of the Concise Oxford Dictionary, 1999

'the state of burning, in which substances react chemically with oxygen from the air and give out bright light, heat and smoke'

What do we need to make fire?

For fire to burn there must be, Oxygen, there must be a fuel (something to burn), and there must be heat. This relationship is always represented by the triangle (of fire). The triangle of fire is a simple way of teaching how fire burns and how to extinguish a fire because as soon as you remove a side of the triangle the fire will go out:

Remove oxygen (smothering) – This can be done by using a CO₂ extinguisher or covering a chip pan fire with a fire blanket.

Remove Fuel; (starvation) – ie turning the gas off or removing combustibles regularly (such as rubbish) to stop a fire from starting.

Remove heat (cooling – the most often used method) - Usually by using water extinguishers.

However, neat as the fire triangle is, both for explanation of how to burn and how to extinguish, its not really the whole story, it could be argued that there is a forth side to the triangle of fire (however we wont go into this here in order to avoid over complication).