

INTRODUCTION TO FIRE SAFETY

MOST FIRES ARE PREVENTABLE



There are approximately **7,000 FIRES** detected in industrial buildings every year



In 2013-14 a shocking **322 PEOPLE** lost their lives to fire related deaths in the UK

So it's really important to remember that the consequences of getting fire safety wrong can be life changing.

HOW DO FIRES START?

Fire needs three things to start:



A source of ignition



A source of fuel



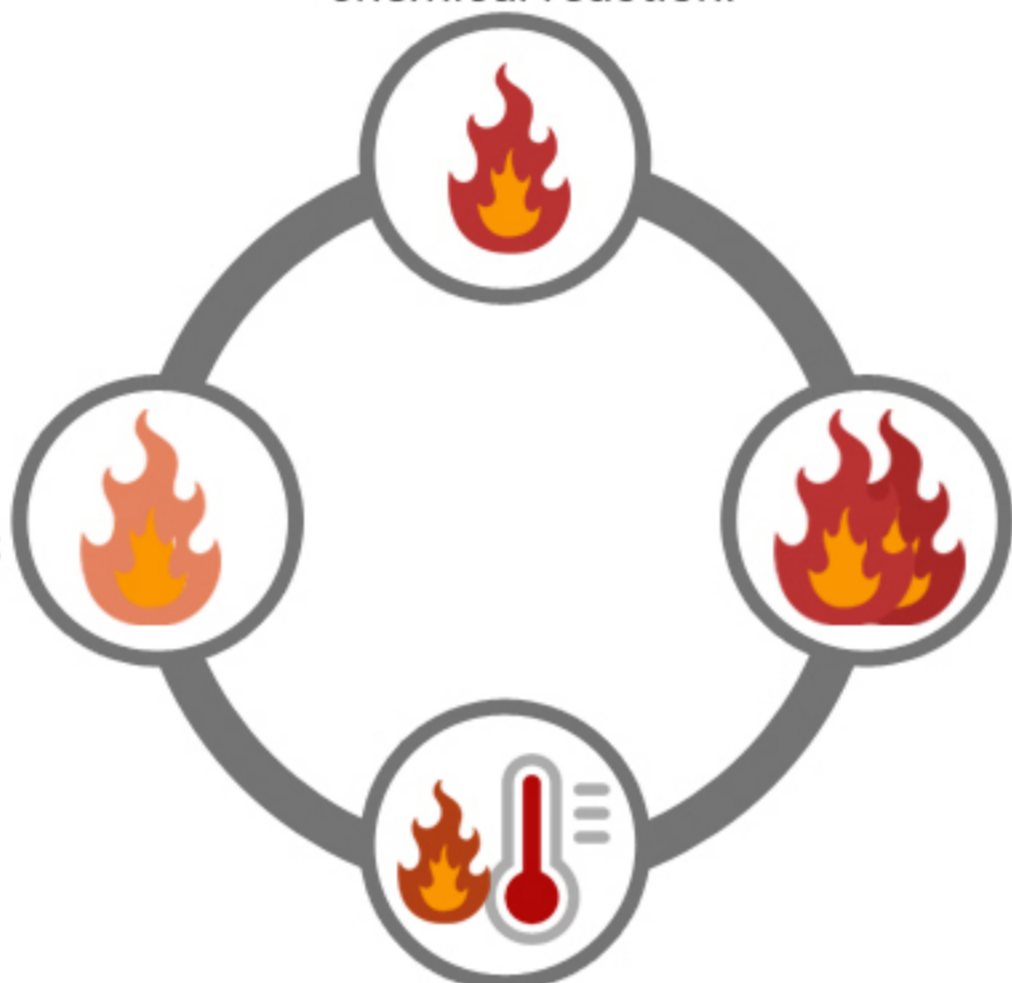
And oxygen

These elements are known as the fire triangle. Understanding the basic principles of the fire triangle is essential to help prevent fires from occurring and also helps us know how to put them out.

STAGES OF FIRE

Stage 1 - Ignition

Fuel, oxygen and heat join together in a sustained chemical reaction.



Stage 4 - Decay (also known as burnout)

The fire has consumed all available fuel and temperatures start to decrease. The fire now gets less intense.

Stage 2 - Growth

With the initial flame as a heat source, additional fuel now ignites. Convection and radiation ignite more surfaces and the size of the fire increases. Hot gases collecting at the ceiling transfer heat, allowing all fuels in a room to come closer to their ignition temperature at the same time.

Stage 3 - Fully Developed

The fire has now spread over much if not all of the available fuel and temperatures have reached their peak.

HOW FIRE SPREADS

Fire spreads fast. Really fast. So it's important you're aware of the three different ways that it can spread:



Conduction

For example; a burning wastebasket which ignites a nearby couch.



Convection

This is the flow of fluid or gas from hot areas to cooler areas.



Fire spreads is through radiation

You may have witnessed this when a burning building radiates heat to surrounding structures.

SOURCES OF FIRE

Many substances found in the workplace can cause fires or explosions:



Flammable chemicals



Petrol



Paint thinners



Welding gases



Engine oil



Grease



Packaging materials



Dust



Flour



Sugar

IT'S REALLY IMPORTANT TO BE AWARE OF THE RISKS AND TO CONTROL OR GET RID OF THEM TO PREVENT ACCIDENTS.



TAKEAWAY

Don't let your future go up in smoke - follow fire safety. You must be aware of how fires start and spread to keep yourself and colleagues safe whilst at work.

Remember - nothing you do is worth getting hurt for.

COMMITMENT TO WORK SAFELY

What are you going to do differently to stay safe at work?

