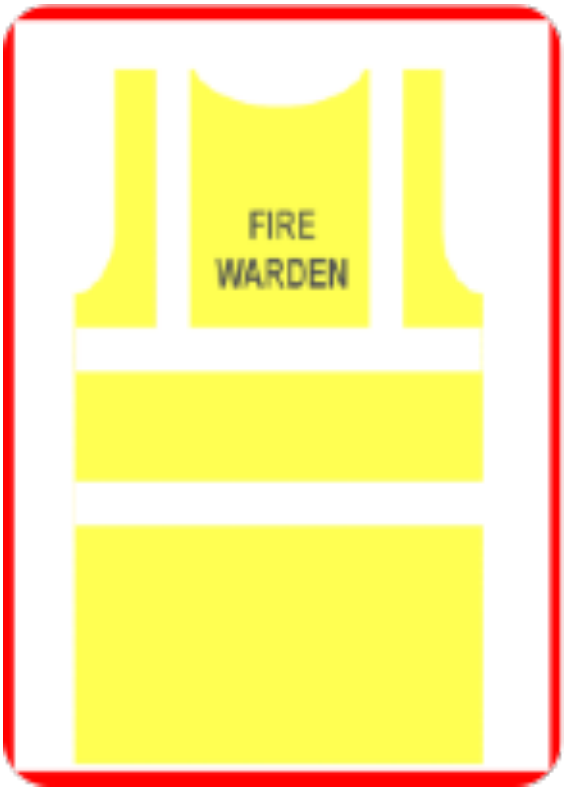
Anglia Fire Assessments



Fire Training Notes

Fire Safety in the Home

You are more than twice as likely to die in a fire at home if you haven't got a working smoke alarm. A smoke alarm is the most reliable way to alert you to the danger of fire, giving you the extra time, you need to escape.

They are cheap, readily available and easy to fit. The more you have the safer you and your family will be.

One in each accommodation room is recommended, as a minimum one on each floor.

Always ensure you test the alarm on a regular basis and keep clean from dust by gently vacuuming.

Make sure you have an escape plan.

As well as your normal exit routes consider any alternative means of escape that you may have in case your normal route has been compromised by fire.

Ensure every member of the household knows exactly what to do in the event of a fire.

In the worse case scenario if you must evacuate via a first-floor window, do not jump.

If possible, hang and drop from the window. Confirm what is below you, this reduces the risk of injury. Dropping soft materials onto the ground first will also help.

Smoke alarms combined with keeping doors closed are the best way to safeguard you and your family.

Vulnerable persons can request a home fire safety check free of charge from the Norfolk Fire & Rescue Service, they will normally provide free smoke alarms if you require them.

No Alarm - No Chance!

Principles of Combustion (The Fire Triangle).

Fire is a chemical reaction caused when: • **Heat** • **Fuel** • **Oxygen** comes together in sufficient quantities.
The absence of any one of these three elements will prevent a fire starting.

Fire prevention depends on avoiding these three coming together.
Fire extinguishing depends on removing one of the elements from an existing fire.

The best way to remove **HEAT** from a fire is to use a water or foam fire extinguisher, if it is suitable for the type of fire.
Remove the heat and you put out the fire.

Do not use water on electrical equipment, always try and isolate the power first.
Carbon Dioxide extinguishers can be safely used on fires involving electricity.

Indications of 'near misses', such as scorch marks on furniture or fittings, discoloured or charred electrical plugs and sockets, cigarette burns etc., can help you identify hazards which you may not otherwise notice.

A good way of removing the **FUEL** available to a fire is to move flammable materials away and practice good housekeeping. Anything that burns is fuel for a fire.

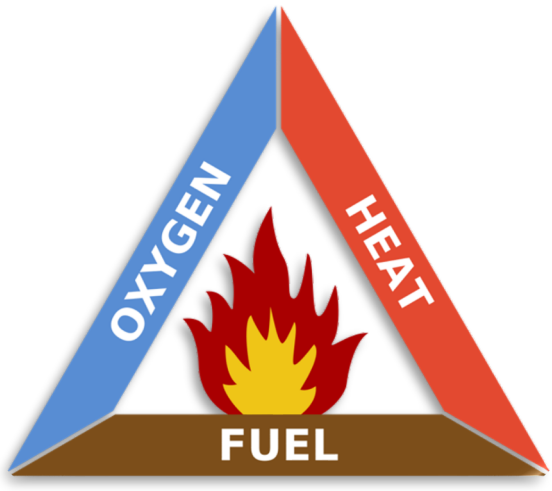
You need to look for the things that will burn reasonably easily and are in sufficient quantity to provide fuel for a fire or cause it to spread to another fuel source.

Remove any flammable materials which may cause a fire away from heat sources, do not allow a build-up of combustible materials.

The best way to reduce the **OXYGEN** supply to a fire is:

Keep the fire doors shut.
Keep the windows shut.
Use a foam/Co2 fire extinguisher.
Use a fire blanket.

The Practical Application of the fire triangle will prevent and extinguish most fires!



Ignition / Fuel Sources;
External Sparking – from grinding metals, welding, impact tools, electrical switchgear.

Hot Surfaces – from lighting, cooking, heating appliances, process equipment, poorly ventilated equipment, faulty and/or badly lubricated equipment, hot bearings and drive belts.

Static Electricity – causing significant high-voltage sparks from the separation of materials such as unwinding plastic, pouring highly flammable liquids, walking across insulated floors, or removing synthetic overalls.

Flammable Gases – includes LPG (liquefied petroleum gas in cylinders, usually butane or propane) acetylene (used for welding) and hydrogen.

Please do not forget aerosols contain LPG and can explode.

An explosion can occur if the air/gas mixture is within the explosive range.

Flammable Liquids – these include paint, varnish, thinners, adhesives, petrol, white spirit, methylated spirits, paraffin, acetone and other chemicals.

Most flammable liquids give off vapours which are heavier than air so they will fall to the lowest levels.

A flash flame or an explosion can occur if the vapour catches fire in the correct concentrations of vapour and air.

Solids – these include wood, paper, cardboard, wrapping materials, plastics, rubber, foam (e.g. furniture upholstery and polystyrene tiles), textiles (e.g. furnishing and clothing), wallpaper, hardboard and chipboard used as building materials, waste materials (e.g. wood shavings, dust, paper etc.).

Oxygen is of course provided by the air and can be enhanced by wind and artificial ventilation systems, which can provide extra oxygen to continue burning.

Cylinders providing oxygen for medical purposes or welding can also provide an additional very rich source of oxygen.

Regular checks of the workplace should be undertaken to ensure that good housekeeping practices are being adhered to and that fuel sources are kept safely away from any ignition sources.

The most common causes of fire or rapid spread are:

Arson
Poor housekeeping
Smoking and careless handling of naked flames or flammable liquids/gases
Faulty electrical appliances and overloading of electrical circuits
Catering equipment
Contractors in your building

Danger from Smoke

In buildings, most deaths from fire are due to the inhalation of toxic smoke.
Also, where smoke is present, people are often unwilling to travel more than a few meters through the smoke to make their escape to safety.

It is therefore important to make sure that, in the event of a fire in one part, people in other parts of the building can use escape routes to get out safely without being exposed to the smoke or gases from the fire.

If you see smoke coming from behind a closed door ***never*** open it.

If you must open it in a fire situation, test the doors temperature by using the back of your hand.

Keep behind the door or wall and open it very carefully and slowly being prepared to close it again quickly.

If a fire is on the other side, by opening the door your life will be at risk.

If you find yourself in a smoke-filled area, try to keep as low as possible and crawl out keeping close to a wall which should eventually guide you to an exit door.

You should feel for the exit door and listen for any noises that will help to give you direction.

Classification (Type) of Fires

Fires are classified in accordance with British Standard EN 2 as follows:

Class A Fires involving solid materials where combustion normally takes place with the formation of glowing embers.
Class B Fires involving liquids or liquefiable solids;
Class C Fires involving gases;
Class D Fires involving metals
Class F Fires involving cooking oils or fats.

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Portable Fire Extinguishers

This ‘first aid’ equipment enables suitably trained people to tackle a fire in its early stages if they can do so without putting themselves in danger.

The fire-fighting extinguishing media in portable extinguishers is expelled by internal pressure, either permanently stored or by means of a gas cartridge.

Portable fire extinguishers can be divided into four categories according to the extinguishing media they contain:

- Water.
- Foam.
- Powder.
- Carbon Dioxide

Some fire extinguishers can be used on more than one type of fire. For instance, foam extinguishers can be used on both Class 'A' fires and Class 'B' fires.

The most useful form of fire-fighting equipment for general fire risks is the water or foam extinguisher. One such extinguisher will be provided for approximately each 200 square metres of floor space, with a minimum of two provided per floor (in case one fails to operate)

Areas of special risk involving the use of oil, fats, or electrical equipment may need Wet Chemical or Carbon Dioxide extinguishers.

General fire extinguisher operating instructions.

1. **P**ull out the safety pin.
2. **A**im the nozzle towards the base of the fire.
3. **S**queeze the handles together.
4. **S**weep the hose/nozzle from side to side.
5. Always test the extinguisher before approaching the fire.
6. Always keep extinguishers upright.

What action to take in case of fire.

Before fighting a fire, ensure:

- The alarm has been raised from a place of safety.
- The emergency services have been called.
- The area has been evacuated if applicable.
- The fire is not spreading rapidly.
- You have selected the correct extinguisher and tested it.
- You have a clear exit path not threatened by fire or smoke.

Do not fight or continue to fight a fire if:

- It is much bigger than a wastepaper bin.
- Smoke is affecting your breathing or vision.
- Your exit route is threatened.
- Gas cylinders or chemicals are involved.
- Your efforts are not reducing the size of the fire.
- You are not trained in fire extinguisher use.

In most workplaces, the evacuation in case of fire will simply be by means of everyone reacting to the warning signal given when the fire is discovered and making their way by the normal escape routes to a place of safety away from the hazard.

This is known as a 'simultaneous' evacuation and will normally be initiated by the sounding of the general alarm over the fire warning system. Make yourself familiar with fire escape routes; these will be identified through health and safety induction training and fire drills. If you cannot fully evacuate a person, then initiate horizontal evacuation which is the method of placing persons in a place of relative safety, on the other side of a set of fire doors. This would normally be in the stairwell or other fire protected corridor.

Make sure you know:

- How to raise the alarm.
- Your nearest fire escape route.
- Where your assembly point is situated.
- Where the fire extinguishers are and how to use them.

On discovering a fire, the first thing you should do is raise the alarm. The fire alarm should be tested weekly, and this will enable you to differentiate between it and other sounds.
In some workplaces, such as those providing sleeping accommodation or care facilities, automatic fire detection and a high degree of structural protection are essential in ensuring a satisfactory standard of fire safety.
In workplaces that are only small buildings or small open areas, the means of raising the alarm may be much more simplistic.

Role of the Fire Warden/Marshal

Be vigilant during your working day.

Report any fire related safety hazards before they become risk critical.

Know your fire equipment, means of escape and fire procedures.

In the event of a fire take the appropriate actions to **ensure a full and safe evacuation** of your area or building.

Sweep your designated area as you exit the building, starting at the greatest point of danger and working towards safety.

Tackle an early-stage fire if safe to do so.

Report the status of your area to the Fire Manager/Co-ordinator at the Assembly Point.

Action in the event of a fire:

ALARM - ASSIST EVACUATION - ATTACK

- Raise the alarm. Ensure that the Fire & Rescue Service is called.
- Assist evacuation of the immediate area/building.
- Fight the fire if you are competent and you consider it safe to do so.
- Check for hazards. Always ensure that your way out is protected and if possible, get someone to assist you.
- Do not allow use of the lifts unless they are evacuation lifts!
- *You do not need to be the last person out of the building.*
- Proceed to Assembly Point and report the status of your area to the senior person.
- Keep in contact at the assembly point as your knowledge may be of use.
- Do not re-enter the building until told to do so by the Fire & Rescue Service.

Fire Warden -Fire Safety Checks

Well organised and carefully maintained premises help to lessen the likelihood of a fire occurring and, if it does, it should be easier to control.

Management should ensure that their fire safety staff (normally Fire Wardens) instigate regular inspections of their responsible work areas to ensure that basic fire safety principles are being applied. Fire prevention is always the best form of firefighting.
A fire safety checklist should be devised to support your fire safety policy. The list is not intended to be comprehensive and should not be used as a substitute for a fire risk assessment.

Below are some examples of checks that should be considered. You should decide upon the frequency that they are undertaken but many items on the checklist should be done daily as part of a normal work routine.

- Can all fire exits be opened easily and immediately?
- Are all fire doors, internal and external exit routes clear from obstructions?
- Are essential fire doors being wedged open?
- Is the fire alarm indicator panel showing 'normal'?
- Are the emergency lights working (normally indicated by the glowing charging light)?
- Is all the firefighting equipment and fire action notices in place and unobstructed?
- During inclement weather all external escape routes (including emergency external stairs) should be kept clear of snow and ice etc.
- Are portable heaters being used responsibly?
- Are combustible items being placed near ignition sources?
- Do staff shut down all non-essential electrical equipment at the end of their working day?
- Have staff introduced personal electrical equipment into the workplace which has not been portable appliance tested?
- When the fire alarm was tested (as per weekly guidance) did it work satisfactorily, did everyone hear it and did all automatic fire doors or other linked equipment function correctly?
- Are staff keeping their personal work areas tidy?
- Did all staff act appropriately during the last fire drill?
- Are waste materials cleared from the workplace on a regular basis?
- Are easily combustible materials (such as wheelie bins, pallets and waste) kept clear from the building and boundary fence?
- Are there any signs of illicit smoking?
- Do you check after contractors have been working on site that your fire safety has not been compromised?

  This may include the fire alarm being disconnected, detector heads covered over, holes made in compartment walls or fire doors left wedged open or even removed!
  Any fire safety breaches or faults that are identified should be recorded in your fire safety logbook clearly indicating the action taken to remedy the situation.
  This list is by no means exhaustive. However, regular training and constant vigilance should enable those employees with fire safety responsibilities to be aware of the basic principles which will keep your workplace safer.
  The prevention of a fire occurring is the most important element of the fire warden role but is often forgotten. Many seem to believe that the fire warden's responsibilities only start along with the fire!

'Be Fire Safe'