Employee Annual Fire Safety Awareness Training

Welcome

Welcome to the Employee Annual Fire Safety Awareness Training. This document has been produced for colleagues who cannot access WILMa

As part of the employee new starter induction process, all new starters will be informed about the fire safety arrangements for their workplace by their line manager in accordance with the health and safety induction checklist. In addition, it is important that all employees receive general information on fire safety in the workplace. This e-learning package has been developed to provide fire awareness training for all employees.

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Warwickshire County Council

Introduction and Overview

This section explores the effects of fire in the workplace and the responsibilities of you and your employer

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Objectives of the course

By the end of this package you will:

- be aware of the WCC Fire Safety Management Policy
- understand your role in fire safety management
- have an understanding of how fire starts
- be able to reduce the risk of a fire at work
- know what to do when the fire alarm sounds
- know what to do if you find a fire
- be able to correctly and safely select and use a fire extinguisher where required/safe to do so

Legal Requirements

Warwickshire County Council is required by law to protect you from harm while you are on work premises. In addition, you as an employee have responsibilities of your own.

Employer

To protect you from harm, Warwickshire County Council has to do all it reasonably can to:

- appoint competent persons around the work site with specific responsibility for fire safety
- carry out fire risk assessments
- provide staff with appropriate fire safety training and refresher training
- involve third parties such as customers or other visitors to the site
- provide and maintain fire precautions such as fire extinguishers, clear signage and means of escape
- keep accurate records on fire safety and precautions

Employee

As an employee, you are responsible for:

- co-operating with your employer to comply with the law on fire safety
- taking reasonable care for your own health and safety, and that of others who may be affected by your actions
- correctly using items such as fire-fighting equipment in accordance with the training or instruction that you have been given by your employer
- never interfering with or misusing anything that your employer has provided for fire safety purposes

What do Warwickshire County Council do?

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Warwickshire County Council will ensure:

- for every building there will be a Building Emergency Evacuation Plan (BEEP)
- if you require assistance during an evacuation then you should have a Personal Emergency Evacuation Plan (PEEP), if you need one raise this with your line manager in the first instance

Further information on these can be found further along in the course.

Dangers of Fire

Fire can occur at any time, anywhere. Fires can cause harm through:

- smoke and gas inhalation
- lack of oxygen
- burns
- collapsing and dangerous buildings due to weaknesses caused by fire damage
- pollution from smoke/water run off

The harm caused can be an injury, ill health or fatal.

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What is Fire?

In this section we outline the elements that make a fire as well as the different types of fire and how they spread

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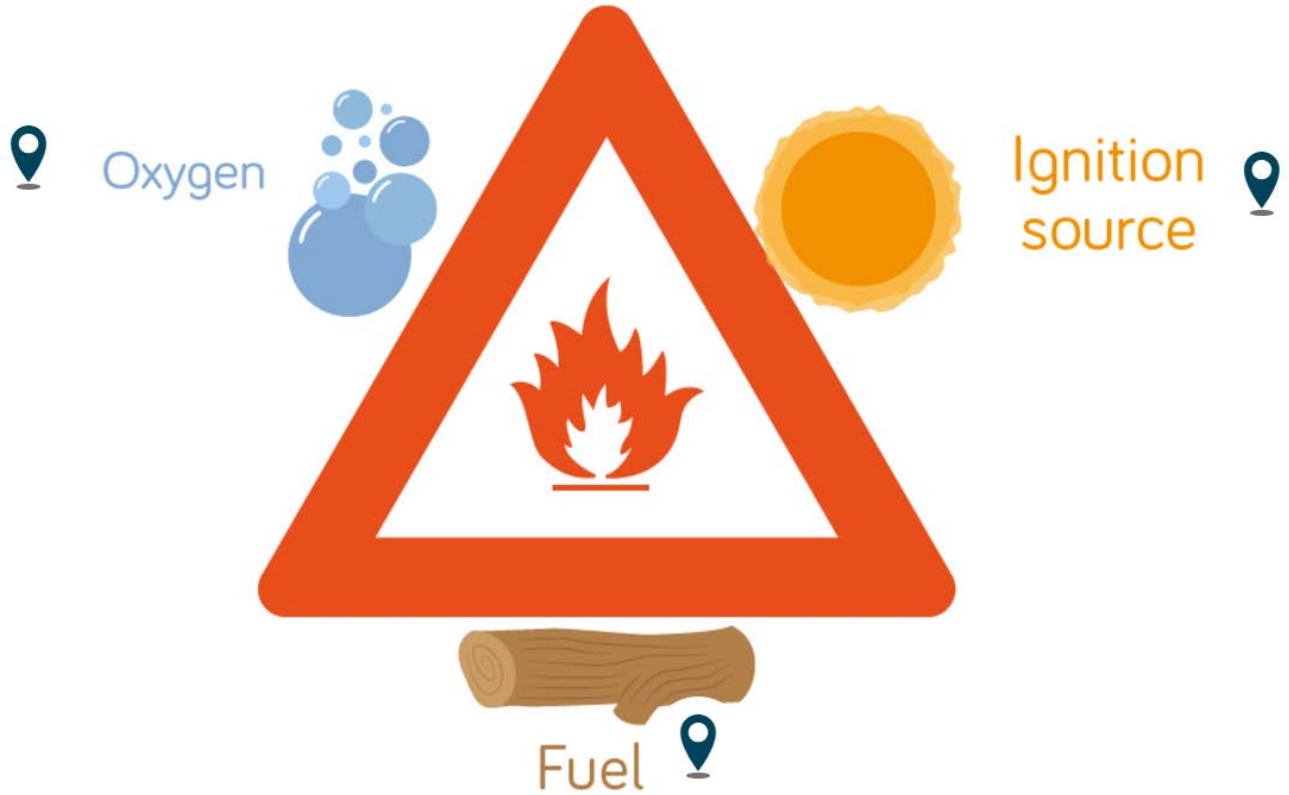
The Fire Triangle

Fire needs three elements to exist: fuel, oxygen and an ignition source. These elements form the fire triangle, shown below. In the right conditions, when all three elements of the triangle come together, a fire will start.

Remember: Fuel + Oxygen + Ignition source = Fire

Let's look at where the sources of the three constituents of fire could come from.

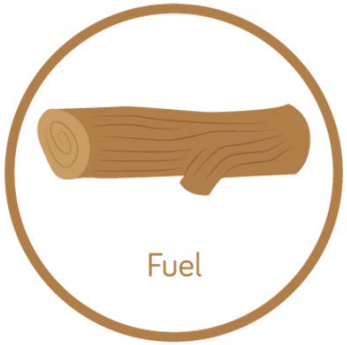


Oxygen

Usually from the air.

Examples are:

- open windows and doors



Fuel

Something that burns.

Examples are:

- paper & cardboard
- plastic
- wood
- furnishing
- petrol/gas

Ignition source

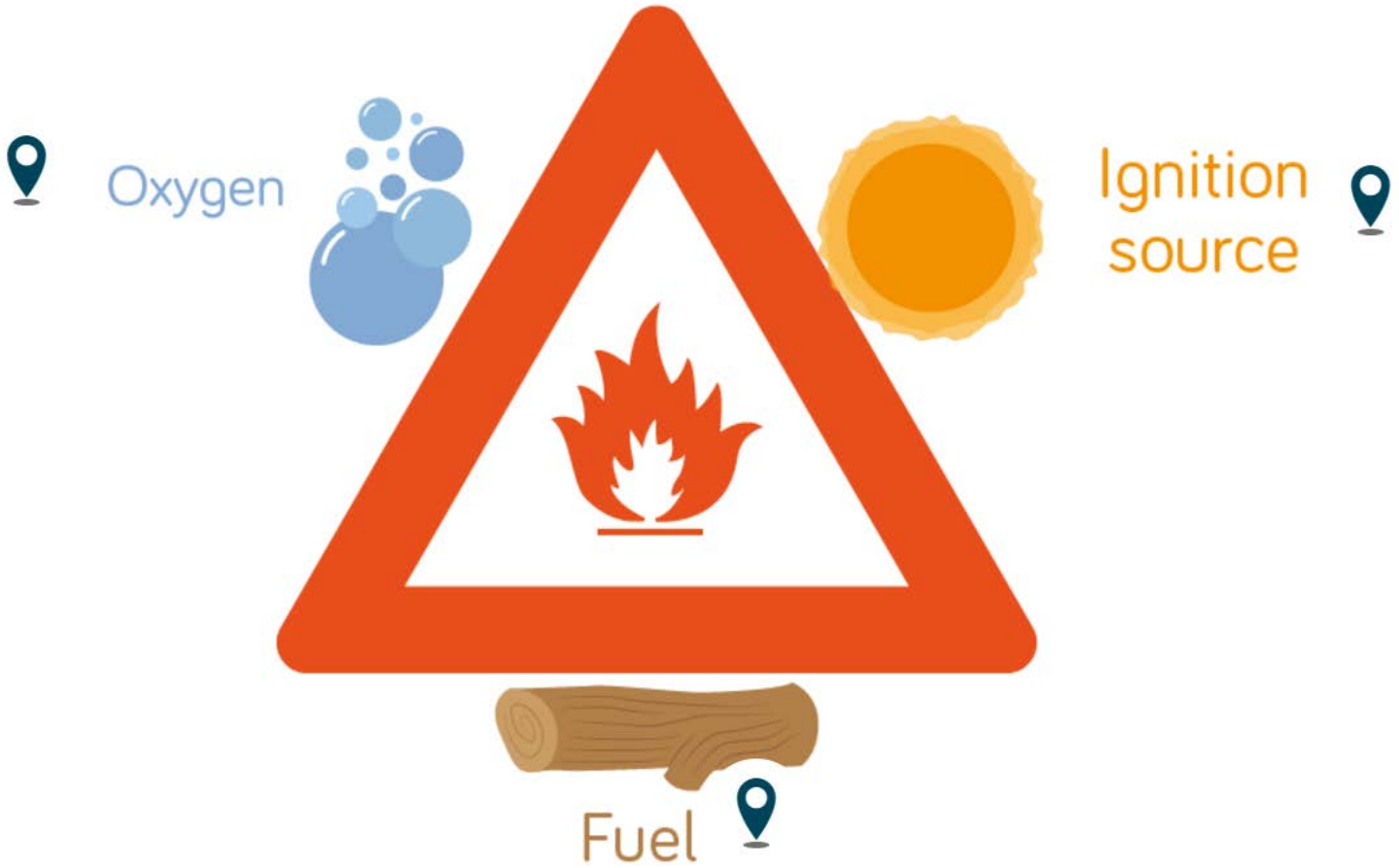
A means of raising the temperature of the fuel.

Common heat sources are:

- heaters
- tools/equipment/processing (including contractors)
- arson
- naked flames
- chemical agent
- electrical equipment /fixed electrical installation
- cooking

Breaking the Fire Triangle

If any one of the three elements of fire is absent, fire cannot start or continue to exist.

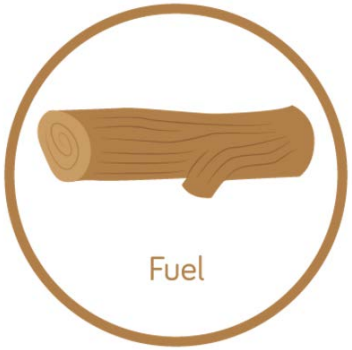


Oxygen

- close all doors and windows in the room when you are the last person to leave if safe to do so.
- use a fire blanket
- use a foam fire extinguisher

Ignition Source

- do not place heaters near a source of fuel
- do not overload electrical sockets
- report damaged or old worn electrical cables
- do not use damaged or faulty electrical sockets and/or equipment
- turn off electrical equipment when not in use
- smoke only in designated areas and make sure your cigarettes are extinguished and disposed of carefully



Fuel

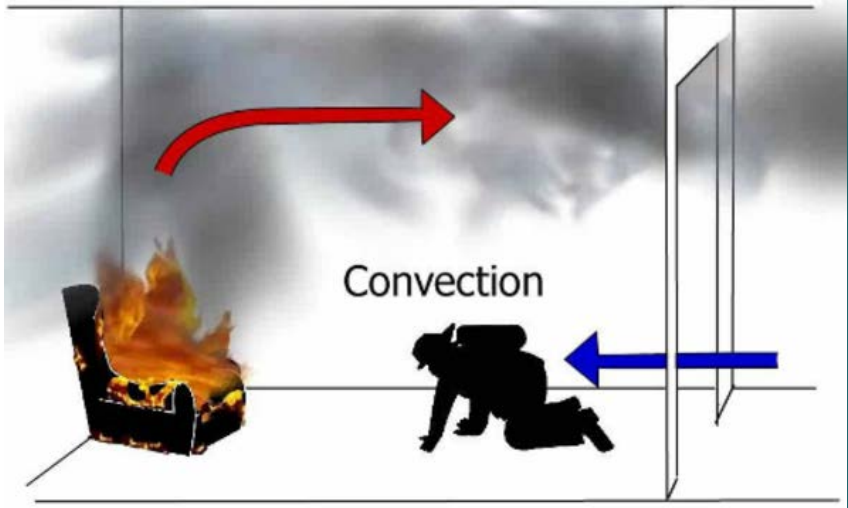
- dispose of waste products carefully in the containers provided
- reduce the quantity of combustible or flammable materials being stored to a minimum
- store any highly flammable or combustible materials in a designated area

The Spread of Fire

If a fire was contained in the location where it starts, it would pose far less of a risk. The speed with which fire spreads can be the single biggest cause of harm, as people find that they cannot escape it in time.

Sometimes it's not the flames themselves that cause the fire to spread. The heat alone generated by the original fire can cause other materials to ignite and start new fires.

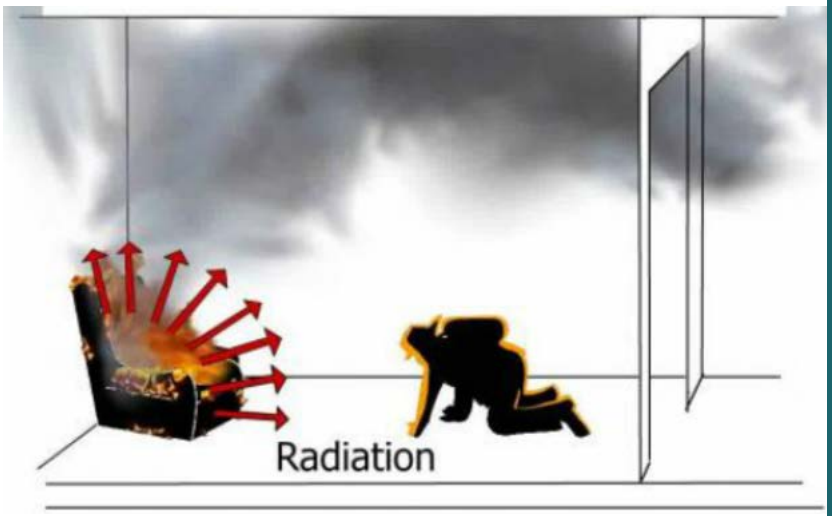
The 3 most common ways that fire spreads are shown on the next 2 pages



Convection

This is heat transfer by air currents. Hot air rises, and can carry sparks and smouldering debris up with it.

As the air cools, it falls, and any debris that falls with the air that is still alight could land on combustible material such as paper or cardboard, and start a second fire.



Radiation

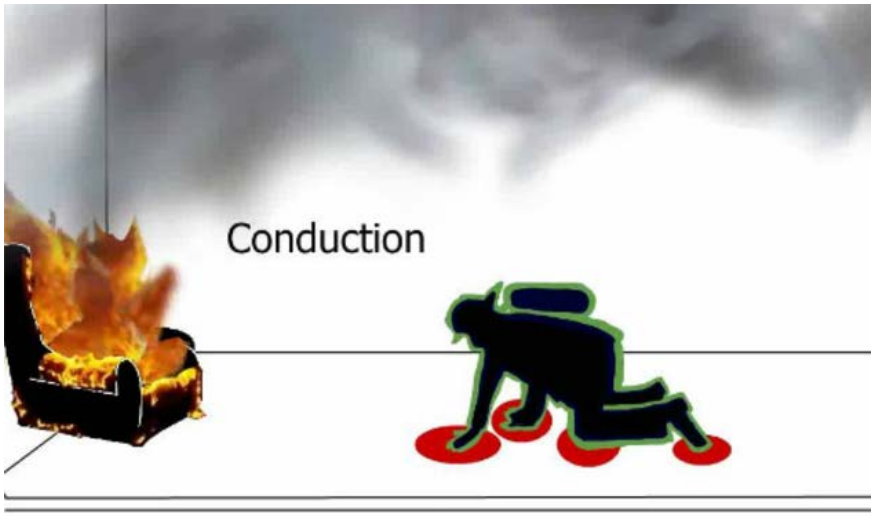
Radiating heat is the kind of heat you get from the sun, or what you feel when you're near a bonfire. It's also how many heaters work, which is why they're often called radiators.

If something flammable is close enough to a source of radiant heat, it could heat up and eventually ignite.

Conduction

If something gets hot, anything it touches will also get hot. If you cook something on a stove in a cooking pan with a metal handle, the handle will get hot even though it is not directly in contact with the stove.

In the same way, imagine a pile of papers alight in a waste basket that's on the floor next to a metal filing cabinet. If the paper burns for long enough, the heat transferred through the metal could ignite something in the cabinet. This is conduction.



Types of Fire

All sorts of things can catch fire, and anything will burn if the temperature is hot enough. The huge range of things that a fire can use as fuel can be quite surprising.

How much do you know about the everyday things that will feed a fire? Below shows different fire types, classified according to the fuel used.

Class A

Fires involving freely burning materials.

Examples include:

- wood
- paper
- cardboard
- fabric/furnishings

Class B

Fires involving flammable liquids and liquefiable solids.

Examples include:

- petrol
- paraffin
- paint
- plastic
- rubber

Class C

Fires involving flammable gases.

Examples include:

- butane
- propane
- natural gas

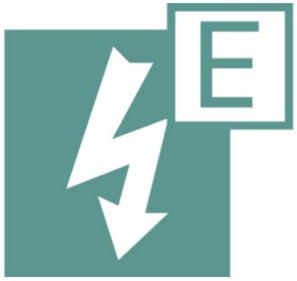
Class D

Fires involve flammable metals.

Examples include:

- aluminium
- magnesium

These metals will burn when in powder form.



Class E

This could be faulty or overheating equipment.

Examples include:

- photocopiers
- computers
- heaters
- overloaded electrical sockets

Never use a water extinguisher in the vicinity of electric equipment

Class F

Fires involving fats and cooking oils

Electrical Fires

Which of the following should you **never** use to put out an electrical fire? Select from the options below

- A fire extinguisher containing foam
- A fire extinguisher containing water
- A fire extinguisher containing carbon dioxide
- A fire blanket
- Sand from a fire bucket

Go to the next page to find out the answers

The correct answer is

- A fire extinguisher containing water

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Fire Fighting Equipment

A look at the different types of fire extinguisher and their use. Plus: how and why to tackle a fire

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What should always be your first priority in the event of a fire or of suspected fire?

- Sound the alarm
- Make sure you're safe
- Put the fire out
- Call the fire service
- Leave the building quickly and safely
- Shout "Fire! Fire! Fire!"

Go to the next page to find out the answers

Types of Fire Extinguisher

If you do have to fight a fire, using an appropriate fire extinguisher is the safest way to do it and carries the best chance of success.

There are four main types of fire extinguisher, each of which is colour coded so you can tell at a glance what kind of fire it can be used to tackle.

Water extinguishers

Water fire extinguishers are the most common. They have a hose attachment and are colour coded **red**. This example has a red handle.

A water extinguisher works by removing heat. It cools and douses the fire and stops it spreading.

Water extinguishers are suitable for Class A fires: freely burning materials such as cardboard, paper, wood, furnishings.

NEVER use a water extinguisher on a fire where live electricity may be near.

Carbon Dioxide (CO_2) extinguishers

CO_2 fire extinguishers are colour coded **black**. The extinguisher pictured has a black coloured label. A CO_2 extinguisher also has a black horn

CO_2 extinguishers work by smothering the fire and depriving it of oxygen. They are suitable for fires involving electrical equipment and for Class B fires, which are those involving:

- flammable liquids such as petrol, paint, paraffin
- liquefiable solids such as plastic and rubber

Do not hold the CO_2 extinguisher by the black horn.

DO NOT use a CO_2 extinguisher in a confined space, as the space will quickly fill up with CO_2 gas at the expense of air containing oxygen - you could have difficulty breathing.

Foam extinguishers

Foam fire extinguishers are colour coded **cream**. The foam extinguisher pictured has a cream-coloured handle.

Foam extinguishers work by smothering the fire. When you put a layer of foam on the fire, you cut the fuel off from the oxygen around it and the fire goes out.

They are suitable for both Class A and B fires.

- class A fires: cardboard, paper, wood, furnishings
- class B fires: flammable liquids (petrol, paint, paraffin) and liquefiable solids (plastic, rubber)

Dry powder extinguishers

Dry powder fire extinguishers are colour coded **blue**.
The extinguisher pictured has a blue coloured handle.

They work by smothering the fire and removing the oxygen. They are suitable for Class A, B and C fires.

- class A fires: cardboard, paper, wood, furnishings
- class B fires: flammable liquids (petrol, paint, paraffin) and liquefiable solids (plastic, rubber)
- class C fires: flammable gases (butane, propane, natural gas)
- electrical fires

Wet Chemical Fire Extinguisher

- it’s noticeable by its red body with yellow label
- wet chemical fire extinguishers are for use with deep fat fryers in commercial kitchens (known as type F fires)
- they use alkaline based wet chemicals

Using a Fire Extinguisher

REMEMBER!!! Your primary aim is to evacuate. Only use a fire extinguisher if you've received practical training from WCC or your evacuation route is blocked.

All types of fire extinguishers carry big labels stating what they can and cannot be used for, so you can tell immediately which extinguisher to use if the need ever arises.

Whatever kind of extinguisher you're using, they are all operated in the same way. The acronym **PASS** is a useful way of remembering how to use a fire extinguisher.

Pull

Pull the safety pin out of the handle. The safety pin may be secured by a plastic anti-tamper tag. If so, simply break the plastic tag first.

Approach and aim

- **approach the fire from a distance** – don't get too close before using the extinguisher because you may blow flames around you
- **aim at the base of the fire** because that's where the fuel is. If you aim at the flames the extinguisher contents will just blow through them without putting out the source of the fire

Squeeze and sweep

- **squeeze the handle** of the fire extinguisher to release its contents
- **sweep the nozzle from side to side** until the fire is out or you have made enough space to get past safely

Stay Safe

Stay at a safe distance from the fire at all times. When the fire begins to die down, you can move in closer with the extinguisher if it's safe.

Other Types of Firefighting Equipment

In addition to fire extinguishers, you may have other kinds of fire fighting equipment around your workplace.

Fire blanket

A fire blanket is a large, thick piece of material that has been specially treated with flame retardant.

It is used to smother, or literally to 'blanket' a fire, depriving it of oxygen. Fire blankets are commonly found in kitchen areas where hot oil may be used, because it's ideal for putting out such fires.

Fire bucket

A fire bucket contains sand, or a similar grainy or powdery substance that is non-flammable.

The substance can be thrown onto the base of a fire to smother it and starve it of oxygen.

Fighting a Fire

Do not fight the fire if:

- you do not feel safe or confident to do so
- it is bigger than a waste paper bin
- smoke is affecting your breathing
- you cannot see the way out
- the fire is already out of control or not contained
- gas cylinders or chemicals are involved
- the use of an extinguisher is not reducing the size of the fire
- you cannot safely access the fire extinguisher
- if fire or smoke could block your exit

If you do - do not put yourself in danger. Ensure the Fire and Rescue Service are called and alarm raised.

Don't fight fire alone, keep between the fire and the exit.

Fire Extinguishers

- familiarise yourself with the fire extinguishers that are available in your workplace/s and what they can be used for
- get to know where they are
- don't misuse the fire extinguishers e.g use them as a doorstop
- if you notice that a fire extinguisher has been damaged or discharged, report it immediately so it can be replaced

Below are some of the different kinds of fires that you will hopefully never have to tackle. One or more of them can be safely tackled by more than one type of equipment. Without duplicating the answer. Select the right item.

1. Chip pan fire
    - Fire Blanket
    - Water Extinguisher
    - Carbon Dioxide Extinguisher
    - Foam Extinguisher
2. Fire in a waste paper basket
    - Fire Blanket
    - Water Extinguisher
    - Carbon Dioxide Extinguisher
    - Foam Extinguisher
3. A burning electrical socket
    - Fire Blanket
    - Water Extinguisher
    - Carbon Dioxide Extinguisher
    - Foam Extinguisher

The correct answers are

1. Chip pan fire
   - **Fire Blanket**
   - Water Extinguisher
   - Carbon Dioxide Extinguisher
   - Foam Extinguisher
2. Fire in a waste paper basket
   - Fire Blanket
   - **Water Extinguisher**
   - Carbon Dioxide Extinguisher
   - Foam Extinguisher
3. A burning electrical socket
   - Fire Blanket
   - Water Extinguisher
   - **Carbon Dioxide Extinguisher**
   - Foam Extinguisher

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Fire Actions

This section looks at what to do if you discover a fire, hear the alarm and the importance of a PEEP

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BEEP

New starters will be informed about the following at their induction

- BEEP - Building Emergency Evacuation Plan
- every building should have a plan in place for emergency evacuation
- you must be informed about the following at your induction
  - how to activate the local fire alarm in the event of a fire
  - what to do when the fire alarm sounds
  - identification of evacuation routes, exit doors and assembly points

It is your responsibility to ensure that you familiarise yourself with these. If you are unsure, please ask your line manager.

PEEP

- PEEP - Personal Emergency Evacuation Plan
- if you require assistance during an evacuation then you should have a PEEP. This assistance could be a result of a short term or permanent impairment or disability
- speak to your line manager - the onus is on you to ensure that your manager is made aware of any short or longer term conditions that may affect your evacuation

Personal Emergency Evacuation Plan (PEEP)

What to do When the Fire Alarm Sounds

- leave the building/site immediately
- use the nearest exit
- walk quickly but don't run closing doors behind
- do not delay your exit to collect your belongings
- do not use lifts unless special provision is in place for your building
- go straight to the fire assembly point
- do not return to the building until being told it is safe to do so

What to do if you Find a Fire

- keep calm
- sound the fire alarm using the nearest call point
- close the windows and doors on way out if safe to do so
- fight the fire if you feel confident and it is safe to do so
- evacuate the building
- notify an appropriate Fire Warden
- make sure the Fire Service have been called

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What Now?

This section explains what to do now

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Summary

Please remember the fire triangle, prevention is the best course of action.

If a fire does occur, raise the alarm and evacuate, **only** if it is deemed safe to do so should you attempt to tackle the fire yourself, i.e. if it smaller than a waste paper bin.

- make sure the fire service have been called and the alarm has been raised
- do not put yourself in any danger
- do not fight the fire alone always ensure someone else is present
- always keep yourself between the fire and the exit
- if you feel in any danger stop using the extinguisher and get out
- even if you extinguish the fire you must still ensure the fire service is called

What You Need to Do Now

Now familiarise yourself with your workplace fire evacuation procedures

- ensure you make yourself familiar with your BEEP
- if you require a PEEP ensure you speak to your manager
- where are your evacuation routes and fire exits?
- where are your call points?
- where are your fire extinguishers and what type are they?
- where is your Assembly Point?
- who are your Fire Wardens?

If you need any fire safety advice, contact your line manager in the first instance.

Within our work locations there are Site Responsible Persons, they are defined as:

The person with the overall day-to-day responsibility for fire safety management on that premise/site. This person may be the Premise Representative or Facilities Support Manager for Facilities Management (FM) centralised properties, or the manager at non-FM centralised properties, or Head teacher at a school'

If this is you then there is specific Site Responsible Person Training. If you need to attend you can email propertyrisk@warwickshire.gov.uk