

Safety Awareness and Fire Education - Gloucestershire
Activity Notes- Keeping safe at home

Class	Years 5 and 6
Topic:	Keeping safe at home
Activity:	1
Over view of activity	Discuss the fire triangle
Slide/ card	Notes
What a fire needs to burn	<p>In order to burn, a fire needs three elements:</p> <p>Fuel: something to burn. Many substances burn: Solids such as wood, fabric, rubber and plastic. Liquids such as petrol, oil, cooking oil, nail varnish remover. Gases such as propane, butane and 'natural' gas.</p> <p>Different fuels burn at different rates and with different intensities. Some types of fuel, under certain conditions, can burn at over 1000°C, that's hot enough to melt aluminium.</p> <p>Heat. The fuel catches on fire when exposed to enough heat to cause it to give off flammable vapours, which then ignite. This heat could be from a match or lighter, but also from electricity. Heat from other items such as cookers, candles and cigarettes can also spread and set other fuel alight.</p> <p>Oxygen: This is found in the air all around us. We need oxygen to breathe and cannot survive without it, fire also needs oxygen and will not survive without it.</p>
What happens if elements of the fire are removed?	<p>If one element is removed then the fire will go out.</p> <p>Fuel: If there is no fuel then the fire has nothing to burn and will go out. For example in a thatch or barn fire the firefighters will remove the thatch or hay so the fire doesn't spread.</p> <p>Heat: If the heat is removed the fire will be extinguished. For example by spraying the fire with water to cool it.</p> <p>Oxygen: If the oxygen is removed from the area of the fire, it will go out. For example if covered with a fire blanket.</p> <p>Fire doors are designed to stop the fire spreading into another room, to give people time to escape. These doors are made of thick wood (many doors are hollow) and have a 'furry strip' down the side to stop the smoke getting through. If the door gets hot the intumescent strip (the thin white plastic which goes around the edge of the door) will expand and stop the smoke getting out. This will also stop oxygen getting in. If the fire uses all the oxygen in a sealed room it will go out. This photograph shows how the fire could not spread into the other room.</p> <p>Keep fire doors closed.</p> <p>If clothes catch fire – stop, drop and roll. This smothers the fire, taking away the oxygen.</p>

Firefighters have specialist equipment

Firefighters have special equipment to extinguish fires; for example;
Breathing apparatus to breathe air while fighting a fire. As well as smoke, toxic fumes from fires can be very dangerous.
Fire kit is fire resistant and will protect a firefighter for longer in a fire than everyday clothes.
Helmets are strong to protect firefighter's heads.
Hoses of different lengths and power; spray water to put fires out.
Foam, which can be used to extinguish fires.
Aerial ladders, to help the firefighters gain height either to reach people to rescue them or to tackle the fire from a better angle.

Never try to extinguish a fire yourself – get out, stay out and call 999.