Fire Extinguishers and Fire Safety

Your PASS to Safety!!
When fire breaks out, you have only seconds to respond
You must do the following:

• Remain as calm as possible
• Act Quickly
• Act Smartly
• Know your options
• Know your way out of the area
• Know where fire extinguishers are located
• Decide to fight or flight
Often the safest option will be to simply evacuate the area and call 911 or pull one of the red fire alarm pull stations.
Four Elements of Fire

- **Fuel**, such as wood, paper, propane, gasoline
- **Oxygen**, at least 16% of the air
- **Heat**, such as a match or spark
- **Chemical Reaction** that results from fuel, oxygen, and heat.
Remove any of the four elements, and the fire goes out!!
Fighting a fire means removing one of more of these elements
Removing the fuel is not an easy thing to do, since it is the fuel that is actually burning!
If the fuel is a flammable liquid a special fire fighting foam can be used to control the vapors which essentially removes the fuel.
Decreasing or eliminating the fire’s access to oxygen is easier, and is known as “smothering” the fire.
Cooling the fire is what you are most used to doing. This is simply spraying water on the fire which cools the fuel enough to stop the chain reaction!
A final fire fighting technique uses chemicals to interrupts the chain reaction. Halon was such a chemical but has now been replaced by new clean agents such as FE-36 and FM-200
Halon was an excellent agent for fire fighting, however it was not environmentally friendly, so new chemicals are still being developed that will be even more efficient and not damage the ozone layer.
Classes of fires:

- Class A
- Class B
- Class C
- Class D
Class A Fires

- Wood
- Paper
- Cloth
- Grass
- Ordinary combustibles
Class B Fires

- Gasoline
- Oil
- Propane
- Oil based paints
- Diesel Fuel
- All Flammable liquids
Class C Fires

- Energized Electrical Equipment including:
  - Fused boxes
  - Circuit breakers
  - Transformers
  - Appliances
  - Motors
  - Tools
Class D Fires

- Combustible metals including:
  - Magnesium
  - Sodium
Fire Extinguishers are classed according to the class of fire they are designed to fight.
Not every fire extinguisher works on every type of fire
For example water would not be the correct fire extinguishing agent to use on energized electrical equipment a Class C fire!!
Every fire extinguisher faceplate shows the class of fire it is designed to fight. If the extinguisher can be used for more than one class, it will be shown on the face plate.
The simplest and safest way to use a fire extinguisher is to use the PASS method.
Pull the pin
Aim the extinguisher nozzle at the base of the fire
Squeeze the handle
Sweep it slowly back and forth covering the fire
PASS

Pull pin, aim nozzle, squeeze handle, and sweep slowly back and forth
Never block and exit while fighting a fire, if you feel like the fire is winning leave the area and close the door.
Once you are safe, call 911
You can extinguish a fire if you remember:

- **Know how fires occur**
- **Four elements of a fire: fuel, oxygen, heat and chain reaction**
- **Know the classes of fires**
- **Will extinguisher fight that type of fire?**
- **Use PASS if using fire extinguisher, Pull pin, Aim, Squeeze handle, Sweep agent**
Emergencies on Campus

• Dial 911 or 9911
• UAPD responds to ALL Emergencies on Campus
• Fayetteville Fire Department responds to ALL fire and medical emergencies on Campus
• Central EMS responds to all medical emergencies
Conclusion
Questions or Comments?