

# **West Branch High School Career Based Intervention**



**Promote a Safe Work Place**

# 8.1.1: Use Materials Properly and Safely

## “Fire Extinguishers”

•Fire extinguishers are divided into five classes, based on different types of fires.

•Class “A”      Stands for “Ash”

•Class “B”      Stands for “Barrel”

•Class “C”      Stands for “Current”

•Class “D”      Has no designation

•Class “K”      Stands for “Kitchen”

# Types of Fire Extinguishers

## Class “A”



### **Class A Fire Extinguishers**

contain water for use against fires involving ordinary combustibles like paper, wood, cloth and most plastics.

# Types of Fire Extinguishers

## Class “B”



### Class B Fire Extinguishers

use dry chemicals to put out fires caused by gasoline, oil and solvents.

# Types of Fire Extinguishers

## Class “C”



### **Class C Fire Extinguishers**

contain carbon dioxide for use against electrical fires.

# Types of Fire Extinguishers

## Class “D”



### Class D Fire Extinguishers

spray dry powder on combustible metals like magnesium, titanium, aluminum, sodium, and potassium.

# Types of Fire Extinguishers

## Class “K”



### **Class K Fire Extinguishers**




use a wet, potassium acetate-based, low pH agent to put out “cooking” fires in which there are animal or vegetable oils and fats.

# Types of Fire Extinguishers

•Labels on extinguishers may also have symbols representing the class.

## Fire Classification

### Know How To Handle It

Classes Of Fires	Types Of Fires	Picture Symbol	Extinguisher
	Wood, paper, cloth, trash and other ordinary materials.		<ul style="list-style-type: none"><li>Water</li><li>Foam Spray</li><li>ABC Powder</li><li>Wet Chemical</li></ul>
	Gasoline, oil, paint and other flammable liquids		<ul style="list-style-type: none"><li>Foam Spray</li><li>ABC Powder</li><li>Carbon Dioxide</li></ul>
	May be used on fires involving live electrical equipment without danger to the operator		<ul style="list-style-type: none"><li>ABC Powder</li></ul>
	Combustible metals and combustible metal alloys		<ul style="list-style-type: none"><li>ABC Powder</li><li>Carbon Dioxide</li></ul>
	Cooking media (Vegetable or Animal Oils and Fats)		<ul style="list-style-type: none"><li>Wet Chemical</li></ul>

© 2011 Fire Extinguisher



# How do Fire Extinguishers Work?

At the top of the cylinder, there is a smaller cylinder filled with compressed gas. A release valve acts as a locking mechanism and prevents this gas from escaping. When you pull the safety pin and squeeze the lever, the lever pushes on an actuating rod which presses the valve down to open a passage to the nozzle. The compressed gas is released, applying a downward pressure on the fire-extinguishing material. This pushes the material out the nozzle with high amounts of pressure.



# How to use a Fire Extinguisher

**Pull the **P**in** at the top of the extinguisher. The pin releases a locking mechanism and will allow you to discharge the extinguisher.

**Aim at the base of the fire**, not the flames. This is important - in order to put out the fire, you must extinguish the fuel.

**Squeeze the lever slowly**. This will release the extinguishing agent in the extinguisher. If the handle is released, the discharge will stop.

**Sweep from side to side**. Using a sweeping motion, move the fire extinguisher back and forth until the fire is completely out. Operate the extinguisher from a safe distance, several feet away, and then move towards the fire once it starts to diminish. Be sure to read the instructions on your fire extinguisher - different fire extinguishers recommend operating them from different distances. Remember: Aim at the base of the fire, not at the flames!!!!

**P A S S**

# Demonstration

