

TECHNICAL DRAWING

SECTION 1: FUNDAMENTALS OF TECHNICAL DRAWING 1A: OCCUPATIONAL HEALTH, SAFETY AND THE ENVIRONMENT

Objectives: 4. Fires and fire-fighting equipment

1. A fire extinguisher is a protective device used to control or extinguish small fires.
2. The five main class of fire extinguishers are:

Types of Extinguisher	Class of Fire	Reason
Water	Class A	Only applicable to organic material such as wood, paper, cloth; etc.
Foam	Class A & B	Is much better at extinguishing organic material and is the only one applicable to flammable liquids
Dry Powder	Class D	Used for combustible or flammable metals which is one of the more dangerous types of fires.. Is able to separate the fuel from the oxygen thereby killing the fire..
CO2	Class B & ALL Electrical fires	They are ideal for electrical fires, as CO2 is not a conductor and they do not leave behind any harmful residue
Wet chemical	Class A & Oils in kitchens	The wet chemical rapidly knocks the flames out, cools the burning oil and

		chemically reacts to form a soap-like solution, sealing the surface and preventing re-ignition.
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3.

- a. A fire extinguisher should ONLY be used if the fire is contained and is not spreading around the area.
- b. A fire extinguisher should be checked every month to determine whether:
 - It is still charged. The meter should be in the green zone
 - The extinguisher is mounted correctly
 - Are they easily accessible
- c. The following are the steps to be followed when using a fire extinguisher:
 - a) P - Pull the safety pin from the handle
 - b) A – Aim the extinguisher nozzle at the base of the fire
 - c) S - Squeeze the handle to activate the fire extinguisher
 - d) S – Sweep the spray back and forth across the fire/target. Continue until the fire is out.

4. Answers to the scenarios:

- a) Class of fire is formerly E but fires with cooking oil and a Wet chemical fire Extinguisher is used.
- b) Class B fire because paint thinners is a flammable liquid so Foam based extinguisher is used.
- c) Formerly Class E fire as it involves computer and hardware but a CO₂ Fire extinguisher is recommended because of the printer involved in the fire.
- d) Class A fire which should be extinguished by a water based fire extinguisher because of the organic materials involved. It can also be extinguished by a Foam based extinguisher.