

OCCUPATIONAL HEALTH & SAFETY



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to Become an Occupational Safety Expert

- Graduating from Architecture and Engineering departments,
 - Graduating from the physics, chemistry and biology departments
- of Science and Literature faculties,
- Being a technical teacher,
 - To be graduated of the 2-year OHS departments,
 - at least 70 points out of 100 ----- (OSYM)



The main purposes of OHS are;

**** to assure safe and healthful working conditions for employees**
(çalışanların sağlığını korumak)



****to prevent work accidents and occupational diseases.**
(iş kazalarını ve meslek hastalıklarını önlemek)



****to provide security and continuity in production.**
(üretimde güvenliği ve devamlılığı sağlamak)



****to provide a healthy and safe working environment**
(Sağlıklı ve güvenli çalışma ortamı oluşturmak)



As a result, quality and efficiency increase

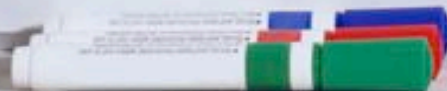
SAFETY CULTURE

-definition -

It is the way in which safety is managed in a workplace. It is the combination of beliefs, perceptions and attitudes of employees toward the safety of workers and the overall safety of the work environment.



DEFINITIONS



Basic Concepts & Definitions

★ Health:

- According to The World Health Organization (WHO), «**health**» is not simply the absence of disease or infirmity, but rather, is '*a state of complete physical, mental and social well-being.*



WHO'ya göre sağlık:

sadece hastalık ve sakatlık
durumu değil, Ruhun + beden
+ sosyal açıdan iyi olma
durumudur!!

Basic Concepts & Definitions



Workplace Hazards:

Occupational health and safety is concerned with many types of *workplace hazards* :

- Chemical hazards
- Physical hazards
- Biological hazards
- Psychological hazards
- Ergonomic hazards



HAZARD and RISK Definitions

Here, the shark is;

Hazard?

Risk?



Basic Concepts & Definitions

Hazard:

- Source, situation or act with a potential for harm in terms of human injury or illness, or combination of these. (OHSAS 18001 Article 3.6.)
- **Potential which exists at the workplace or may arise from outside the workplace to cause harm or damage which could affect the worker or the workplace; (OHS Law #6331, Article 3 (1))**



Basic Concepts & Definitions

Risk:

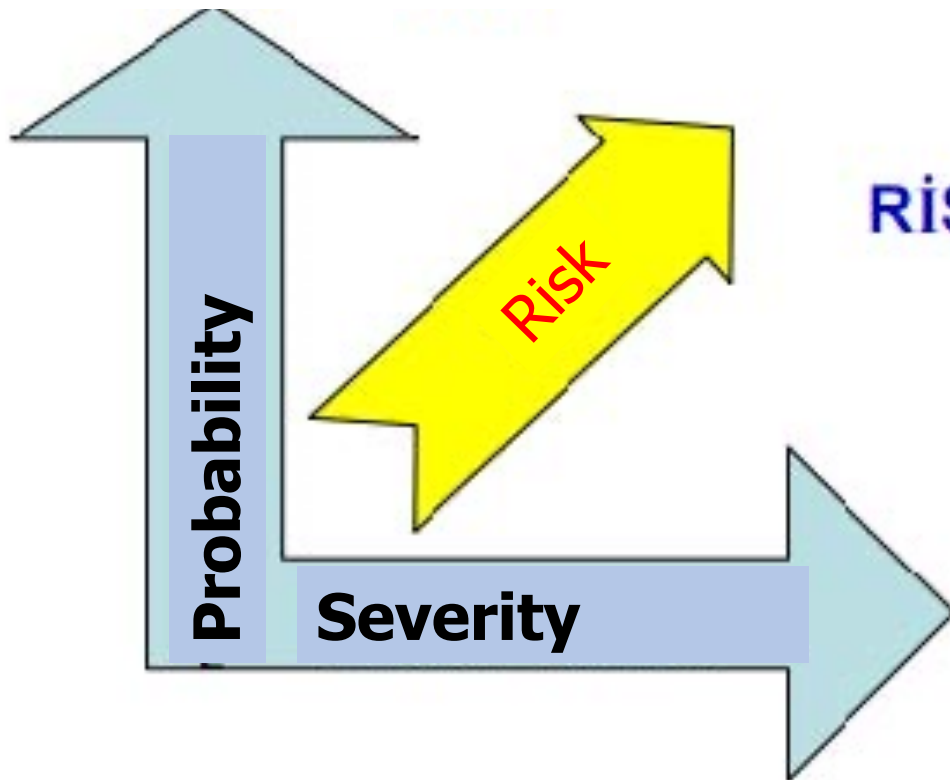
- Combination of the likelihood of an occurrence of a hazardous event or exposure(s) and the severity of injury or illness that can be caused by the event or exposure(s)

(OHSAS 18001 Article 3.21)

the combination of the **probability** of harm occurring and the **severity** of the harm once it occurs.



the combination of
the **probability** of harm occurring and the **severity** of the harm



$$\text{RISK} = P \times S$$

P: Probability

S: Severity

Basic Concepts & Definitions

- Hazard and risk relationship likes **potential energy vs kinetic energy relationship.**



- Hazard is accepted as potential energy,

- risk is accepted as kinetic energy.

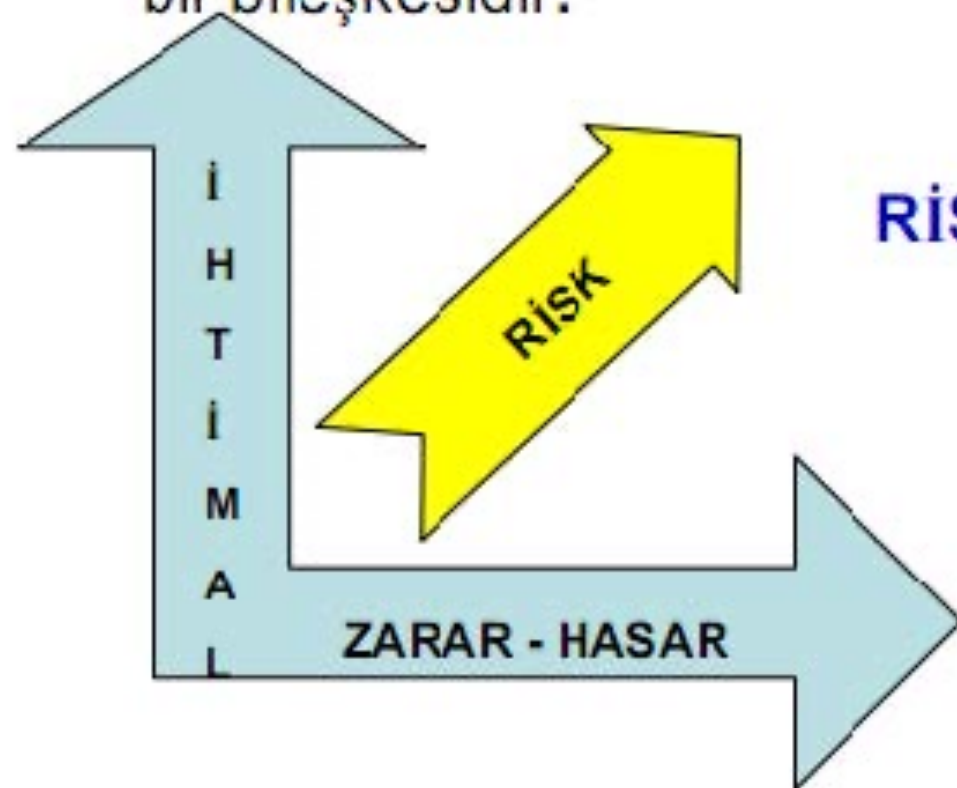


TEHLİKE / HAZARD

İşyerinde var olan ya da dışarıdan gelebilecek, çalışanı veya işyerini etkileyebilecek zarar veya hasar verme potansiyeli : **6331**

RİSK

Tehlikelerden kaynaklanan bir olayın, meydana gelme ihtimali ile zarar verme derecesinin bir bileşkesidir.



$$\text{RİSK} = i \times D$$

i : İhtimal

D: Zararın derecesi

HAZARD and RISK Definitions

Here, the shark is;

Hazard?



Risk?





Let's take a look of some examples about
Hazard and Risk



Hazard	Risk		
<p>Noise</p>		<p>Permanent hearing loss for those working in loud noises</p>	
<p>Blood-borne Disease</p>		<p><u>contagious disease</u></p>	
<p>Oxy-combustible gas system</p>		<p>accident of a person working with a non-protective oxy-gas system</p>	
<p>Working at height</p>		<p>Falling from height Material drop</p>	

Tablo 1: Tehlike-risk kavramı

*Hunting in the area which is full of sharks: Hazard
possibility of loss of life: Risk

* Long working hours : Hazard
life imbalance : Risk

* working without helmets in the mining areas: Hazard
Possibility of falling stones: Risk

working with chemicals : Hazard
Breathing-tasting- contact : Risk

(According to the records, the number of children who
drink bleach is very high)



*Hand tools: Hazard

Hand cut: Risk

* Working with flammable materials, like
petrol: Hazard

Fire: Risk

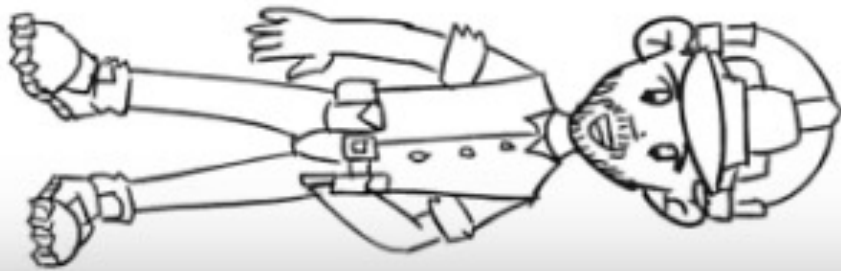




Hazard



Risk





HAZARD



RISK



**A RIVER
IS A
HAZARD**



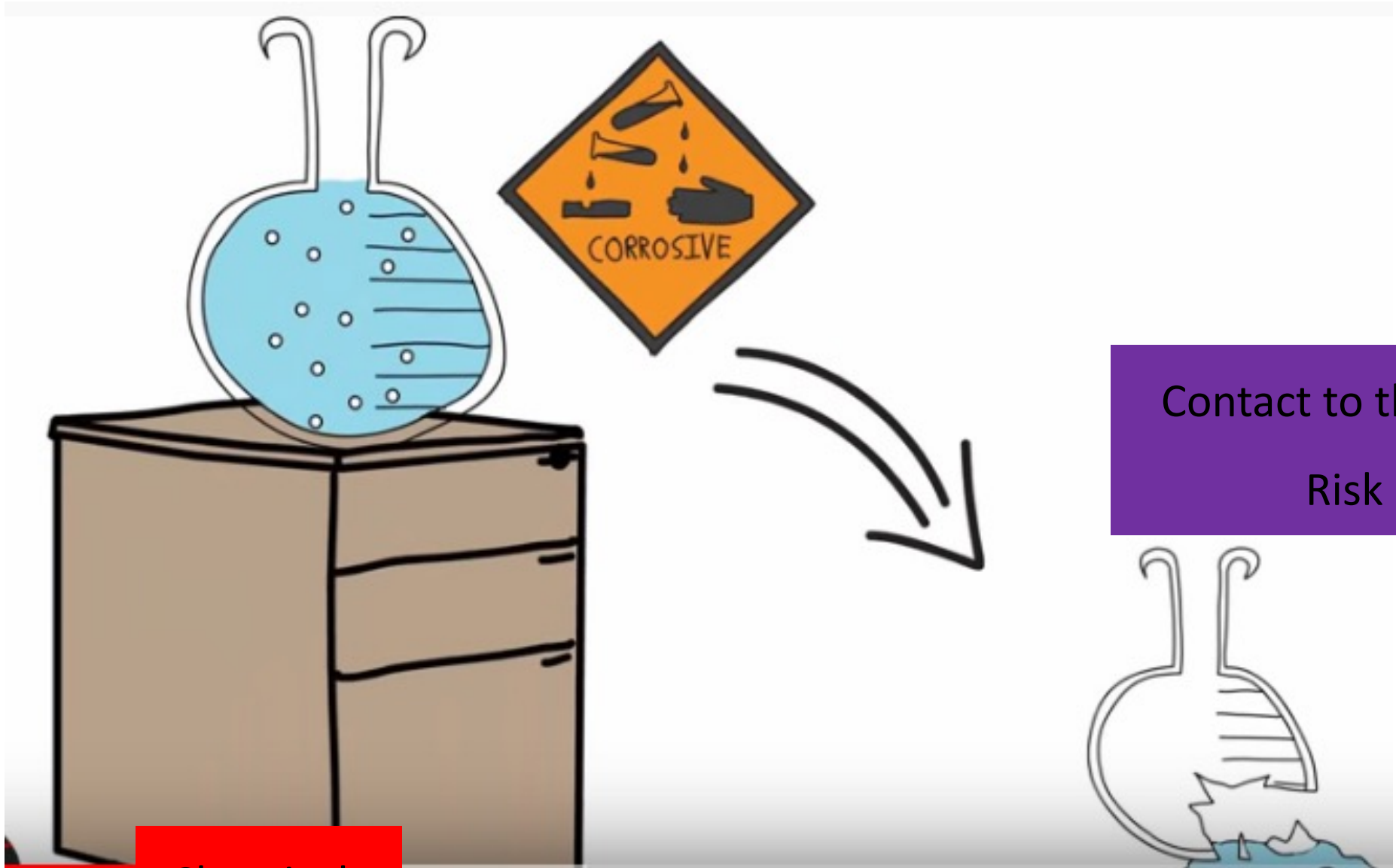
**FLOODING
IS A
RISK**





leaving things
UNGUARDED
is a
HAZARD

having them
STOLEN
is a
RISK



Chemicals
Hazard

Contact to the skin
Risk



Hazard

Risk





HAZARD

RISK



Taking Precaution (önlem)

It refers to eliminate or reduce the risks related to occupational health and safety at all stages of the work carried out in the workplace.



İşyerinde yürütülen işlerin bütün safhalarında iş sağlığı ve güvenliği ile ilgili riskleri ortadan kaldırmak veya azaltmak için planlanan ve alınan tedbirlerdir.

where do you hit ?
How do you hit?
Why do you hit?
To whom do you hit?



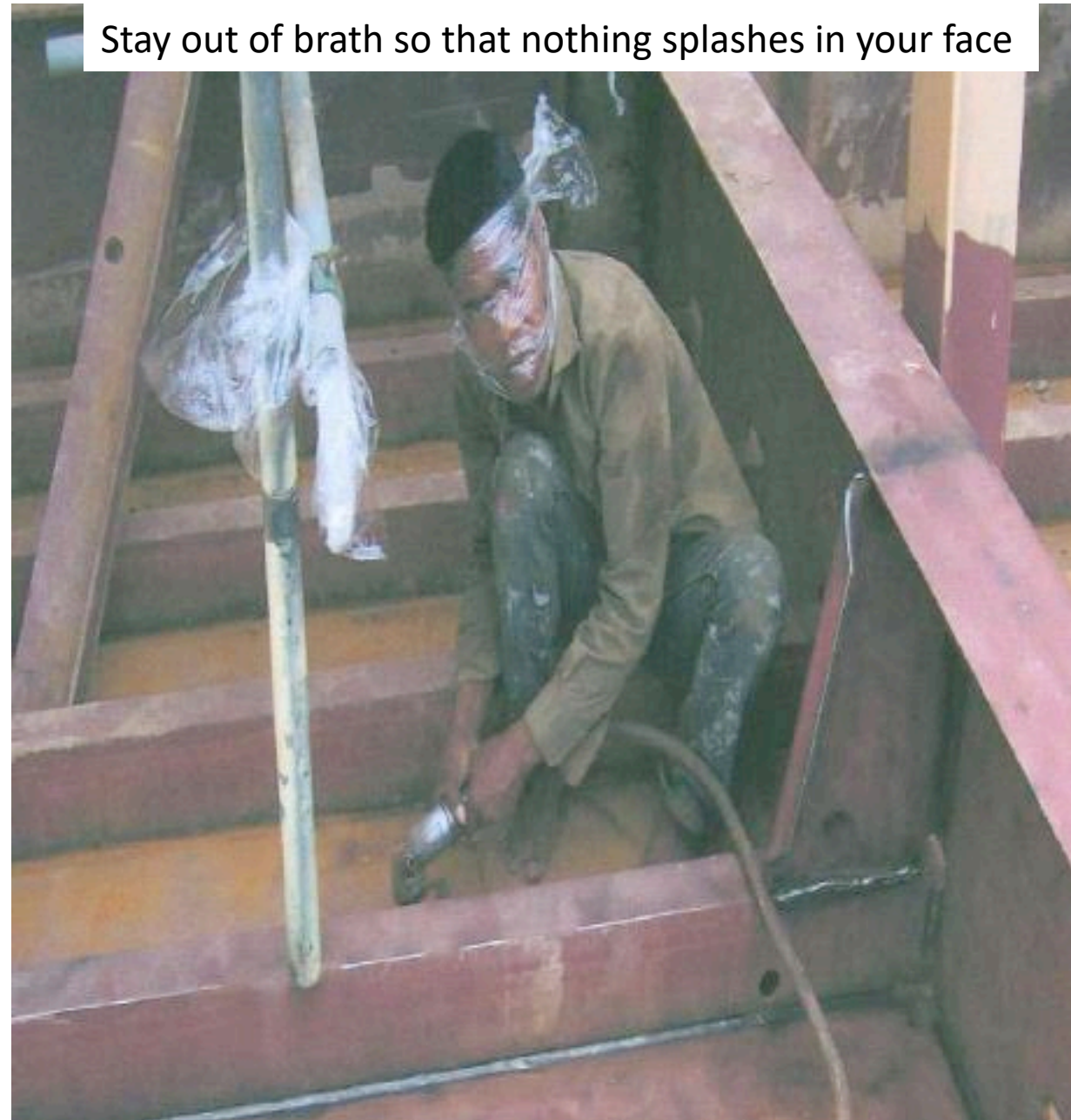
work machine as an umbrella



As an helmet?



Stay out of brath so that nothing splashes in your face



fire to flammable gases?



Basic Concepts & Definitions

Hazard sources are listed below:

- Individual factors
- Environmental factors
- Work related factors
- Factors related with material used
- Factors related with machine/equipment used

They all can cause hazards!

Basic Concepts & Definitions

Incident:



- A work related event in which an injury or ill health or fatality occurred or could have occurred

Accident:

- An incident which an injury or illness actually occurs

Near –Miss :

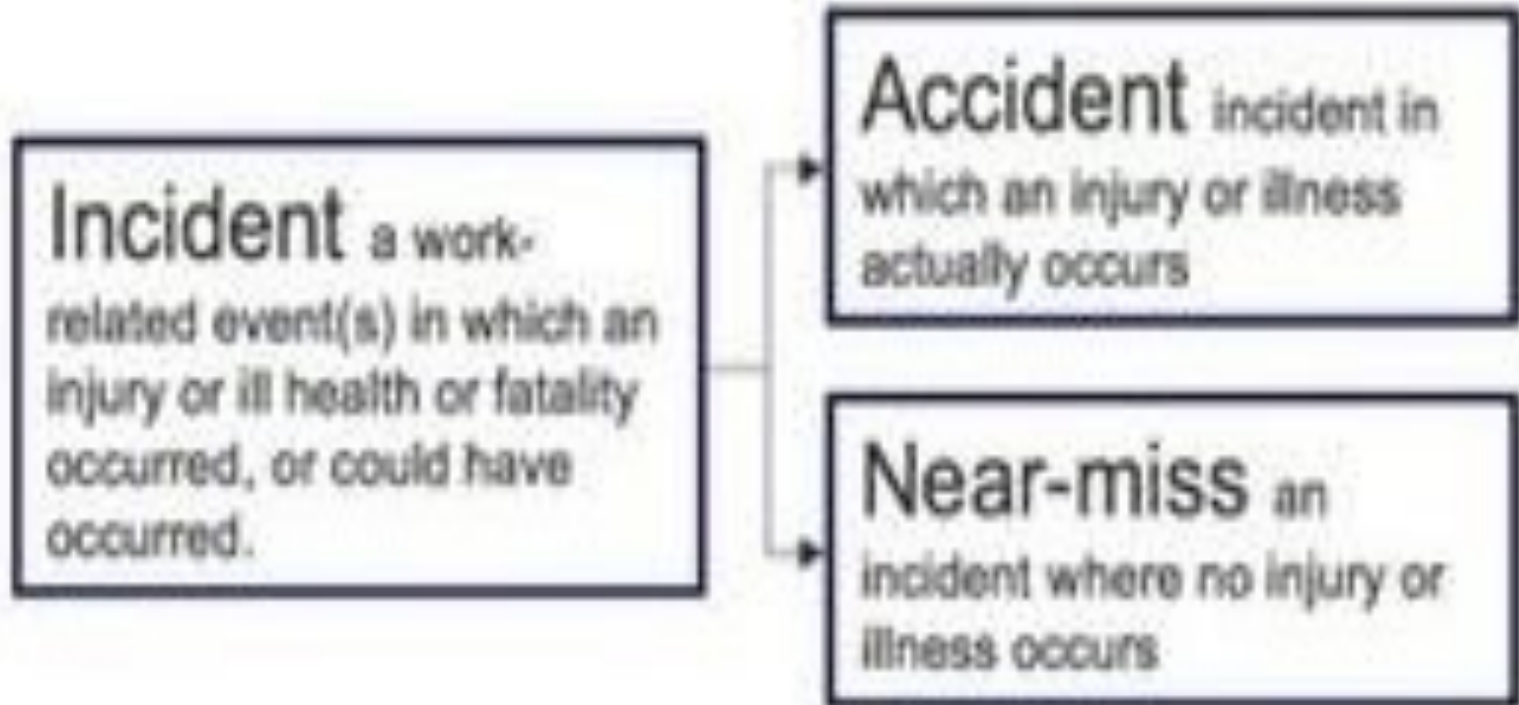


- An incident where no injury or illness occurs
(an event not causing harm, but **has the potential to cause injury or illness**)

Basic Concepts & Definitions

Accident as a type of Incident

(based on OHSAS)



Near miss



Luckily, the box didn't hurt him.



