TOPIC 1: HEALTH AND SAFETY IS IMPORTANT AT WORK

Activity 1 – Workplace safety

# Answer the following questions:

1. **Describe how an employer can make a workplace safer.**

1. **Describe what an employee can do to be safer at work.**

1. **Describe what a Health and Safety Representative (HSR) does.**

1. **Describe what an Occupational Health and Safety Committee does.**

TOPIC 1: HEALTH AND SAFETY IS IMPORTANT AT WORK

Activity 2 – SAFETY SIGNS

# Match the pictures with the correct words









* Beware – radiation
* First aid
* Breathing apparatus must be worn
* Hearing protection must be worn
* Beware – electricity
* Eye protection must be worn
* Gloves must be worn
* No smoking
* Fire extinguisher
* Beware – forklift

# TOPIC 2: EMPLOYER REPONSIBILITIES TO PROTECT WORKERS

## ACTIVITY – CASE STUDY

## Tuna Boat Incident – Work Experience Student

Andrew, a Year 11 student, had an interest in aquaculture and arranged to do his work experience with a tuna farm to see how the fishing industry operated.

On his first day, Andrew was doing jobs like untangling and mending nets. Later in the day he helped clean one of the vessels and do other general tasks.

On the second day, it was arranged that Andrew would be picked up at 4.00pm and would go out on a vessel to the tuna farms. However, due to a mix up with telephone calls, Andrew missed the pick up time. Arrangements were made to take Andrew out to the vessel on another boat.

When Andrew got to the vessel he was told by the skipper to “keep out of the way” and watch what was being done.

When they got to the tuna farm, Andrew and a deckhand shovelled feed into the tuna nets, then Andrew untied the vessel and it travelled to the next farm.

Again they shovelled feed into the nets, the deckhand was about to ask Andrew to untie the vessel but Andrew had already started to do so. The boat moved in the sea swell and he caught his fingers in the rope, injuring them.

Andrew suffered a fracture and de-gloving\* injury to his right index finger and laceration to his left index finger.

The owners of the tuna vessel were prosecuted in the Industrial Court for, among other charges, failing to:

* ensure the safety of an employee
* induct an employee
* supervise an employee.

Key points raised by the magistrate:

* Andrew was deemed an employee under the safety laws because he was performing work gratuitously for an employer.
* The skipper failed to ensure that Andrew was provided with a full induction when he started work experience.
* Andrew was not provided with an induction when he boarded the vessel.
* The skipper did not ensure Andrew was properly supervised while on the vessel and failed to provide adequate information, instruction, training and supervision.

**\*** A de-gloving injury is when the skin is taken off – like when a glove is taken off the hand.

**Source:** SA Industrial Relations Tribunal and SafeWork SA websites

**Questions to be completed**

1. List some of the OHSW responsibilities of Andrew’s employers.

1. What is an induction? How might the situation have been different for Andrew if he had received an induction?

1. The magistrate in the Industrial Court said Andrew was not properly supervised. Give some examples of the supervision Andrew should have received.

1. What are some of the difficulties in relation to workplace safety for a new employee or work experience student such as Andrew?

1. This case study is an example of what can happen when an employer doesn’t follow the law. If you find yourself in this situation, what can you do to protect yourself and others from injury?

TOPIC 4: IDENTIFYING, UNDERSTANDING AND CONTROLLING   
WORKPLACE HAZARDS

ACTIVITY – WORKPLACE HAZARDS

1. List three hazards that you might find in the following workplaces:

Office

Hotel

Factory

Building site

Farm

2. Using your school as an example, list two hazards and suggest two ways that the risks associated with the hazards may be controlled. The problem-solving worksheet can be used to assist you.

3. Briefly explain why personal protective equipment should be the last resort to protect health and safety.

4. List injuries that may result from each of the following hazards:

Manual handling

Noise

Hazardous substances

# TOPIC 8: Work-RELATED InjurY AND ILLNESS

# ACTIVITY 1 – WORK-RELATED INJURIES

## Answer the following questions:

1. What is a work-related injury?

1. List five examples of work-related injuries.

1. What should you do if an injury occurs in the workplace?

# TOPIC 8: WORK-RELATED INJURY AND ILLNESS

# Activity 2 – EFFECTS OF Work-RELATED InjurY AND ILLNESS

Using the **case studies** provided identify and list how an injury at work can affect the individual, the employer and the community.

**Case study 1**

Reference: SafeWork SA Media Release (10 October 2008)

A dairy farm manager was working with another employee using an auger to mix feed. The  
machine had been modified for use in a manner for which it was not designed. A protective hatch   
cover from the auger was removed to allow more mixed feed to be collected in another container.

The auger, which is like a large corkscrew turning within a tube, was exposed. While trying to scoop out the last of the grain from the open hatchway, the manager’s hand became caught when his workmate started the mixer up again.

The man’s hand was cut off at the wrist.

The employer was legally obliged to identify the hazards and assess the risks of the machinery its employees had to use. Also, in the absence of a manager or supervisor, the employer should at least have had appropriately developed written policies and procedures.

**Case study 2**

Reference: SafeWork SA Media Release (10 October 2008)

A company that specialises in galvanising steel products had a poor safety culture. Amongst other things, there was constant absenteeism, a failure to provide adequate personal protective equipment (PPE) and the employees were unwilling to wear any of the PPE provided.

The company used a jig to dip metal parts into a hot galvanising solution but the procedures lacked information on how to remove excess zinc solution from the jigs. On one occasion, the jib was immersed too far. This meant that the pockets of air and moisture trapped in the build-up of zinc on the jig frame expanded and exploded with the hot liquid metal (450 degrees C) splashing nearby workers.

This was the second time it had happened. The company’s management had not improved their safety culture or safety systems since the similar previous incident.

Six workers were injured in all: two in the first incident and four in the second. The workers suffered severe facial and upper body burns from the molten metal, which was worsened by having inadequate protective equipment.

The company also failed to provide adequate emergency response facilities, such as fire equipment, first aid, and medical evacuation procedures.

When working with dangerous materials, employers must have adequate levels of safety management and employees must be responsible for their own OHSW.

**Case study 3**

Reference: SafeWork SA Media Release (26 September 2008)

A 35-year-old male delivery driver was waiting to collect paperwork at a bench inside a coldroom warehouse, when he was struck from behind by a reversing forklift and knocked to the ground.

His left foot was severely crushed, requiring extensive surgery including the insertion of plates and screws. He now has a painful permanent disability in his foot and had to leave his job due to his injuries. He became unemployed and felt ‘very much disabled and discarded’.

On investigation, the company was found to have numerous safety failures including:

* not all forklifts had working audible warning devices and flashing lights (including the one involved in the incident)
* no speed limit was imposed to forklifts/operations
* there were no physical barriers to protect people from contact with forklifts
* the system of traffic control to separate people from forklifts was inadequate
* there were no designated walkways and floor markings were faded
* there was no evidence of hazard identification, risk assessment or risk control measures for the tasks performed.

Contact with moving objects is a common source of harm in the workplace. In particular, forklifts and tractors are considered among the most dangerous pieces of machinery used at Australian workplaces.

**Case study 4**

Reference: SafeWork SA Media Release (26 September 2008)

A foundry worker was assigned the job of cutting up large metal cone-shaped ‘mantels’ which had been used in mineral processing. These were about 1.8 metres wide and 1.2 metres high and had to be cut with oxy-acetylene torches.

During this task, a piece of metal estimated to have weighed 800 kg fell and crushed the worker’s lower right leg. He also suffered a full thickness burn to the back of his right hand.

His hand was badly scarred despite skin grafts, and he may need further corrective surgery for his leg.

When the incident was investigated, it was determined that:

* no written safe operating procedures existed advising of the risks of such work, or how to perform the work safely
* no physical barrier existed to protect the worker from the metal.

**Case study 5**

Reference: SafeWork SA Media Release (22 September 2008)

A factory employee working on a processing line was alerted to a blockage on the conveyor system where two conveyors joined. However, the source of the blockage was obscured from the worker’s vision. As she reached up to clear the blockage, the worker’s right index finger became caught in a gap between the conveyor belt and a stainless steel slip tray, cutting the finger off at the tip.

Following this incident, the employer installed a step to properly observe the conveyor system, an emergency stop button and implemented a safe operating procedure.

This incident could have been avoided by doing a thorough hazard identification and risk assessment.

**Case study 6**

Reference: SafeWork SA Media Release (30 April 2008)

During the construction of a house, a builder removed a temporary handrail to allow work to proceed on a raised timber deck belonging to a pole-framed house. The only precaution for dealing with the inherent risk of falling was the builder’s verbal instructions to two apprentices assisting with the task.

An 18-year-old male apprentice fell three metres from the timber deck, suffering two crushed vertebrae in his back. There was no fall protection in place such as harnesses or extra scaffolding.

In comparison with other workers, young people are twice as likely to be injured at work and falls are the main cause of workplace injury and deaths in the construction industry.

**Case study 7**

Reference: SafeWork SA Media Release (9 April 2008)

Two employees, who worked for a sign installation business, were performing maintenance work on an illuminated sign belonging to a car dealership. The sign’s power supply was not isolated, despite a previous warning that the switch was difficult to find.

The employees were left to rely on their own experience and competence and were not provided with adequate safe working procedures or information, training, instruction or supervision. There were also insufficient safeguards for working at height.

One employee was killed when he touched live wires within the sign and when his workmate tried to rescue him by pulling him back from the sign, he put himself at the same risk of electrocution.

**Case study 8**

Reference: SafeWork SA Media Release (18 March 2008)

A teenage worker was on his second day of work when the employer instructed him to use an unguarded pipe-bending machine. The worker was neither trained nor qualified to operate this machine.

The worker did ‘as he was told’ and attempted to operate the unguarded machine when his hands became trapped. He suffered serious finger injuries, sustained a broken middle finger, multiple cuts to his right hand and crushed fingertips that resulted in two amputations on the left.

**Case study 9**

Reference: SafeWork SA Media Release (11 October 2007)

A female employee and her colleague had just started working at a food manufacturing company and were told by the supervisor to clean an industrial blender, as the usual operator was absent.

They were not provided with a safe operating procedure and had been left alone to clean the machine. During the cleaning, another worker accidentally started the blender and one employee’s hand became trapped in the blades. In a frantic attempt to free the hand, her colleague again started the blender.

The female employee lost her hand.

**Case study 10**

Reference: SafeWork SA Media Release (25 September 2007)

At the factory of a furniture maker, a 23-year-old female employee had been asked to work on a large ‘edgebander’ which presses and glues edge strips to laminated boards used for making cabinets. Her job involved removing and stacking the finished boards as they came off the machine.

While the second person was fixing the edgebander, the female worker was removing off-cuts away from the operator’s view. When the machine restarted, her hand was drawn into the machine resulting in the amputation of her finger at the first knuckle, and she suffered other serious cuts.

The female employee said she assumed that if an area on the machine was unguarded, then it was safe to place her hands there. She had not been told otherwise.

Employers have legal responsibility for the safety of their workers, meaning they must ensure that incidents like this are anticipated and prevented. Guards, lockout devices, as well as good safety training would easily have prevented this accident.

**Case study 11**

Reference: SafeWork SA Media Release (5 July 2007)

At a recycling business, a worker was attempting to clear a stoppage on a conveyer belt when a cleat that was moving with the belt struck his hand.

This resulted in what is called a ‘degloving’ injury, where skin is peeled away from the bone.

**Case study 12**

Reference: SafeWork SA Media Release (24 May 2007)

At the premises of a property developer, a male employee suffered a severe foot injury after being struck by a heavy steel trestle, which had been knocked off balance by a forklift. The driver had no formal qualifications or licence to operate the forklift.

**Case study 13**

Reference: SafeWork SA Media Release (16 May 2007)

An employee of an ice-cream company was cleaning splashes of ice cream from a small moving conveyor belt, when her finger was trapped and crushed by an unguarded part of the machine.

An investigation showed that a removable guard for the machine was stored in a shed and had never been used, nor was the worker told that the guard even existed let alone how to install it. As a result, the worker suffered a distressing disfigurement and lost income during treatment.

**Case study 14**

Reference: SafeWork SA Media Release (19 January 2007)

A 19-year-old second-year apprentice storeman employed at a transport company was unloading pallets from a truck. The pallets were hazardously stacked and not properly secured, which resulted in a 580 kilogram pallet falling from the top of the pile directly on to the worker.

He suffered serious leg injuries including broken bones, torn ligaments, body bruising and lacerations. Two years after the incident, the worker still needed surgery and remained psychologically disturbed.

In this case, the company did not properly assess the risks to its workers from falling loads.

**Case study 15**

Reference: http://www.govet.nsw.edu.au/files/resources/hospitality/ACF29DE.doc

An employee of a newsagency needed some brochures that were in a carton on the top shelf of the storeroom. She could not find the ladder and used the lower shelves to climb up.

The shelves did not take her weight and broke. As she fell, she grabbed another shelf to stop herself from falling. Because the shelves were freestanding and not anchored to the floor or fixed to the wall, the movement started the shelves falling and they landed on top of her. A co-worker raced to stop the shelves falling and injured his arm in an effort to save his colleague. The first employee is now a paraplegic, while her co-worker suffered a broken arm.

**Case study 16**

Reference: http://www.ohs.labor.net.au/youthsafe/case/case1.html

A 21-year-old employee had been working for a fast food outlet for about five weeks when she was asked to clean a bacon fryer and steamer unit. The fryer held hot cooking oil and the steamer contained hot water. The employee, through inexperience, mistakenly believed that both sections of the unit contained hot oil.

She endeavoured to locate the oil drum into which, as she knew, the hot oil was to be poured and later disposed of, but found that it was outside the premises with the back door locked. She then asked the cook and restaurant manager how to dispose of the oil in the circumstances and was told to "put it in the bain-marie" (a metal bucket type container) located on the floor.

The worker then emptied the hot water from the unit into the bain-marie (under the impression it was hot oil) and then poured the hot oil from the unit into the same container. When the hot oil hit the hot water it started to explode.

The worker suffered severe burns to her body from the exploding hot oil. She was admitted to hospital, where she received appropriate treatment, and was absent from work for more than four weeks as a result of her injuries.

**Case study 17**

Reference: http://ohs.labor.net.au/youthsafe/case/case3.html

A storeroom at a cardboard manufacturing company did not have lights installed for several weeks. However, there was a need for employees to gain access to the storeroom during the night shift and the practice was to use lighters to illuminate the interior of the storeroom.

The employees were asked to pour flammable liquids from drums within the storeroom into smaller containers but the hand pump used for transferring these liquids was leaking.

The storeroom was inadequately ventilated with flammable fumes in the air and flammable liquids on the floor.

A worker was showing a new employee how they transferred the liquids in the storeroom and he lit his cigarette lighter while the new employee began to pour the liquid. The cigarette lighter flame jumped and the drum containing the flammable substance caught fire.

Both employees suffered second and third degree burns to fifty percent of their bodies, permanent scarring and disfigurement.

**Case study 18**

Reference: http://ohs.labor.net.au/youthsafe/case/case4.html

A 22-year-old forklift operator was cleaning an agitator in an industrial mixer used for mixing concrete. The guard had earlier been removed and the worker (who had not cleaned out the machine before), reached in to remove a piece of concrete. His hands became trapped so severely that a surgical team had to amputate his arm at the shoulder during the rescue.

**Case study 19**

Reference: http://ohs.labor.net.au/youthsafe/case/case5.html

A 17-year-old work experience student began his first day at a printing press, using an unfamiliar machine without being given safety instructions or procedures.

A young supervisor vaguely mentioned that whenever the machine started rolling, ‘you would have to adjust it back and feel the rollers’. However, when the work experience student started to feel the rollers, his hand became trapped in the machine, subsequently crushing his fingers and thumb. He also injured his wrist and had to have micro-surgery to extract a portion of hip to replace the damaged bone, prolonging his pain and suffering.

An investigation revealed thatas well as failing to place a guard on the machine, the employer did not provide adequate training or instruction for operating a dangerous machine.

**Case study 20**

Reference: http://www.hse.gov.uk/slips/experience/chef.htm

A Commis Chef working in a hotel kitchen was walking past a fat fryer while carrying a large box of potato peelings. His foot slipped and as he reached out to steady himself, he plunged his arm into hot oil. He sustained full thickness burns to his hand and arm, with further burns to his face due to splashing oil. As a result he underwent surgery and was off work for almost five months.

|  |  |  |
| --- | --- | --- |
| **FINANCIAL COSTS** | **HUMAN COSTS** | **OTHER** |
|  |  |  |

|  |  |  |
| --- | --- | --- |
| **EMPLOYER** | **EMPLOYEE** | **COMMUNITY** |
|  |  |  |