Hazard Assessment and Control Form

Date:	**January, 2022**	**Dept.:**	**All Sites**	**Position:**	**Universal Teaching including: Classroom, Principal, Vice Principal, Learning Support, Band, Drama, Art, Foods, Media, Science and Centre for Learning @ Home Teaching staff**
Assessment Team:		Divisional Joint Health and Safety Committee			
Risk:		Medium			
There are four classifications of hazards:		**Physical, Psychological, Biological and Chemical**			

Likelihood: Likelihood is best determined by asking the question, "What is the likelihood of something going wrong during the performance of this task".

1. **Inconceivable** – Unlikely to occur
2. **Remote** – Unusual, but possible to occur
3. **Conceivable** – May occur at some point
4. **Possible** – Likely to occur
5. **Most Likely** – Will occur

Exposure: How often is the task performed?

1. **Rarely** – Occurs less than 3 times per year
2. **Infrequently** – Occurs less than 12 times per year
3. **Occasionally** – Occurs on a monthly basis
4. **Frequently** – Occurs weekly
5. **Continuously** – Occurs throughout the workday

Consequence: How serious could the consequences of an uncontrolled hazard be?

1. **Negligible** – no injury, illness or damage
2. **Minor** – minor injury, illness, or damage (no loss time)
3. **Moderate** – moderate injury, illness, or damage (medical aid or lost time)
4. **Serious** – severe injury, serious illness, property and equipment damage
5. **Imminent Danger** - Causing deaths, widespread occupational illness, and loss of facilities

TASK	SAFETY HAZARD	LIKELIHOOD	EXPOSURE	CONSEQUENCE	PRIORITY RISK RATING L-E-C 3	HAZARD CONTROL(S) IN PLACE
Working in a School Community	*Biological:* Pandemic virus'	3	5	4	4	Engineering: Plexi barriers/sneeze guards Administrative: Administrative Procedures GEN #08 – Communicable Diseases; Follow all protocols as dictated by Alberta Health Services and Public Health. Regular and effective hand hygiene such as hand sanitizer and respiratory etiquette, physical distancing and assess their own health by completing health check questionnaire and staying home when sick (AHS self-assessment or Health Link 811). Personal Protective Equipment: As directed by Public Health and Alberta Health Services and may include: disposable gloves, masks, face shields
Working Alone	*Physical Hazards:* intruder	3	4	5	4	Attached: Best Practices, Emergency Response Protocols
Computer use:	*Physical Hazards:* MSI, carpal tunnel, eye strain, headaches, fatigue	3	5	2	3.3	Attached: SWP,
One on One assist Students	*Physical Hazards:* MSI, cuts, bruises, unpredictable body	3	5	2	3.3	Attached: SWP, Best Practices, personal protective equipment. Behavioural Plan in place, de-escalating volatile situation training, may require MANDT training

TASK	SAFETY HAZARD	LIKELIHOOD	EXPOSURE	CONSEQUENCE	PRIORITY RISK RATING L-E-C 3	HAZARD CONTROL(S) IN PLACE
	movements, aggressive student behaviour (bites, kicks, hits, scratches, falling objects)					
	Biological Hazards: Lice, virus, germs,	3	5	2	3.3	
	Psychological Hazards: Stress, aggressive behaviour, mental health	3	5	2	3.3	
Lifting/moving equipment and students	*Physical Hazards:* Muscular skeletal Injury (MSI, strain, falling objects, pinch points, slips, trips and falls,	3	4	3	3.3	Attached: Safe Work Practices
Specialty Area: (Drama, Art): Working at heights, overhead work, lighting adjustments, stage prop	*Physical Hazards:* Slips trips and falls, MSI, electricity, burns, cuts bruises,	3	4	3	3.3	Attached: Safe Work Practices, Best Practices, WHMIS training, PPE

TASK	SAFETY HAZARD	LIKELIHOOD	EXPOSURE	CONSEQUENCE	PRIORITY RISK RATING L-E-C 3	HAZARD CONTROL(S) IN PLACE
construction, paint, hand and power tools including knives	pinch points, moving parts, dust, noise *Chemical Hazards:* Chemical usage	3	4	3	3.3	
Specialty Area: Band Instruction	*Physical Hazards:* Noise	3	3	3	3.3	Band teachers must review and participate in CTR Hearing Conservation Program available on MyCTR or by contacting the OHS Officer, appropriate PPE
Specialty Area: Media	*Physical Hazards:* Slips trips and falls, MSI, electricity, burns, cuts bruises, pinch points, moving parts, dust, noise *Chemical Hazards:* Chemical usage	3 3	4 4	3 3	3.3 3.3	Attached: Safe Work Practices, Best Practices, WHMIS training, PPE
Specialty Area: Science	*Physical Hazards:* Burns, cuts, hot open flame, pinch points, electricity *Biological Hazards:*	3 3	4 4	3 3	3.3 3.3	Attached: SWP, Best Practices, engineering controls, WHMIS training, Alberta Education: Health and Safety in the Science Classroom K-12 (current year)

TASK	SAFETY HAZARD	LIKELIHOOD	EXPOSURE	CONSEQUENCE	PRIORITY RISK RATING L-E-C 3	HAZARD CONTROL(S) IN PLACE
	Fungi, bacteria, mould, animal parts *Chemical Hazards:* Chemical handling	3	4	3	3.3	
Photocopier (including audio or visual equipment)	*Physical Hazards:* Burns, pinch points, moving parts, electric shock *Chemical Hazards*: air quality, chemical (toner cartridges)	2 2	5 5	2 2	3.0 3.0	Attached: SWP, engineering controls, Personal Protective Equipment, WHMIS training
Physical Education Activities including coaching	*Physical Hazards:* Muscular skeletal Injury (MSI), strain, falling objects, pinch points, slips, trips and falls,	3	3	3	3.0	Attached: SWP , Best Practices - Housekeeping
Supervision including lunch time and food preparation	*Physical Hazards:* Slips, trips, falls, cold and hot temps, pinch points, cuts, bruises,	2	5	2	3.0	Attached: SWP, Personal Protective Equipment,

TASK	SAFETY HAZARD	LIKELIHOOD	EXPOSURE	CONSEQUENCE	PRIORITY RISK RATING L-E-C 3	HAZARD CONTROL(S) IN PLACE
	Biological Hazards: Virus, lice, insect bites	2	5	2	3.0	
General Office Duties including filing, mail sorting, telephone, counting money, bulletin boards, organizing workspace, paper cutter, paper shredder	*Physical Hazards:* Muscular skeletal Injury (MSI), strain, pinch points, slips, trips, falls, ergonomic, cuts, cruises, scrapes, reaching, dust, catch points (air/ties)	2	5	2	3.0	Attached: Safe Work Practices (SWP), Engineering controls, Best Practices
Interaction with students, staff, parents and community members	*Psychological Hazards:* Workplace Violence, physical/mental abuse, Harassment, stress, anxiety, compassion fatigue	2	5	2	3.0	Admin. Procedures on Harassment and Workplace Violence, Employee Assistance programs. May include Non-violent crisis intervention or Mandt training.
Field Trips including extra-curricular activities and outdoor studies	*Physical Hazards:* Slips, trips and falls, MSI, cold and hot temps, pinch points, bus accident, cuts,	3	3	3	3.0	Attached: SWP, Personal Protective Equipment, Best Practices, Administrative Procedures/Emergency Response

TASK	SAFETY HAZARD	LIKELIHOOD	EXPOSURE	CONSEQUENCE	PRIORITY RISK RATING L-E-C 3	HAZARD CONTROL(S) IN PLACE
	bruises *Psychological Hazards:* Stress, aggressive behaviour, mental health *Biological Hazards:* Virus, lice, insect bites	3 3	3 3	3 3	3.0 3.0	Attached: SWP, Admin. Procedures on Harassment and Workplace Violence, Employee Assistance programs.
Food Preparation and Instruction including kitchen equipment and utensils	*Physical Hazards:* burns, electric shock, cuts, punctures *Biological Hazards:* salmonella, E.coli, blood	2 2	2 2	4 4	2.7 2.7	Attached: Safe Work Practices, WHMIS training, Engineering controls, PPE; and may include Safe Food handling courses
Cleaning bodily fluids	*Biological Hazards:* bodily fluids *Chemical Hazards:* cleaning products	3 3	3 3	2 2	2.6 2.6	Attached: SWP, personal protective equipment, WHMIS training
Chemical Handling:	*Chemical Hazards:*	3	3	2	2.6	Attached: SWP, personal protective equipment.

TASK	SAFETY HAZARD	LIKELIHOOD	EXPOSURE	CONSEQUENCE	PRIORITY RISK RATING L-E-C 3	HAZARD CONTROL(S) IN PLACE
	Corrosive, chemical handling and exposure, air quality					WHMIS training
Ladder Usage	*Physical Hazards:* Slips, trip and falls, MSI	2	3	2	2.3	Attached SWP
Overall Job Risk Rating					3.0	

1.2 Assignment of Responsibilities

Responsibility can be defined as an individual's obligation to carry out assigned duties. For our Health and Safety Management System to achieve its desired results, everyone in the organization must know their responsibilities, according to their authority and con7trol. While the Health and Safety Objective contains a general reference to responsibilities, the administration has set out specific responsibilities for themselves and for everyone in the organization.

There are three fundamental rights of all workers:

1.2.1. The right to know
1.2.2. The right to participate
1.2.3. The right to refuse dangerous work

All worksite parties can exercise their Health and Safety rights and fulfil their duties without fear of reprisal (discriminatory actions).

1.3. Superintendent and Associate Superintendents

1.3.1. Are aware of and comply with the Division's Responsibilities under the Occupational Health and Safety Act, Regulations and Code.
1.3.2. Are accountable and responsible for the Division's healthy and safety program.
1.3.3. Develop health and safety policy and administrative procedures.
1.3.4. Set goals and objectives to continually improve health and safety management and ensure it is integrated into Division operations and planning.
1.3.5. Provide supervisors with the direction, training, support and resources necessary to fulfil their health and safety roles and responsibilities.
1.3.6. Ensure workers are supervised by supervisors who are competent and are aware of their responsibilities under the Occupational Health and Safety Act, Regulation and Code.
1.3.7. Ensure that employees are aware of their rights and duties under the Alberta Occupational Health and Safety Act, Regulation and Code.
1.3.8. Ensure that all employees are adequately trained in all matters necessary to protect their health and safety. Annually approve the OHS training plan.
1.3.9. Ensure that employees are not subjected to or participate in harassment or violence at the work site.
1.3.10. Ensure health and safety concerns raised are resolved in a timely manner
1.3.11. Communicate to employees at least annually the Division's commitment to health and safety; and set a positive example for health and safety.
1.3.12. Require the annual reporting of the Division's safety performance (e.g. compliance, training, orientation, incidents, WCB rates, etc.).
1.3.13. Consult and cooperate with the joint work site health and safety committees to exchange information and resolve health and safety concerns.

1.4. The Associate Superintendent of Corporate Services (or designate)

a) Develops and maintains an occupational health and safety program that contains the ten elements from the Partnerships in Injury Reduction standard as approved by Alberta Labour and section 37 of the Occupational Health and Safety Act.
b) Facilitates the annual review of the occupational health and safety program by the Superintendent and Associate Superintendents.
c) Solicits feedback and revises associated forms biannually.
d) Supports the occupational health and safety program through the CTR Catholic website, web base applications and other technological means.
e) Provides an orientation of the OHS program for new employees.
f) Develops and reviews codes of practices, review safe work procedures and provide onsite support for school administrators and supervisors.

1.5. Supervisors (Principals, Vice-Principals, Managers, Directors, Coordinators, Supervisors, Head Custodians and other staff on a management / supervisory pay grid)

a) Ensure the division health and safety program is implemented and monitored at their school or within their department.
b) Be aware of and comply with the OHS Act, Regulations, code and follow CTR Catholic policies, administrative procedures, health and safety program, codes of practices, safe work practices and safe work procedures.
c) Ensure they are competent to supervise employees under their supervision.
d) Take the precautions necessary to protect the health and safety of employees under their supervision.
e) Ensure employees under their supervision works in a manner and in accordance with procedures and measures from the OHS Act, Regulations and Code.
f) Advise employees under their supervision of all known hazards to health and safety in the area where the employee is performing work
g) Ensure employees under their supervision use all hazard controls, and properly uses or wears personal protective equipment designated or provided by the employer or required to be used by the OHS Act Regulations and Code.
h) Ensure that none of the employees under their supervision are subjected to or participate in harassment or violence at the work site.
i) Ensure general and site-specific health and safety orientation is completed for all employees including new and transferred employees.
j) Report concerns about unsafe or harmful work site act that occurs or has occurred
k) Report safety concerns, unsafe conditions, work-related injuries, illnesses, and near misses.
l) Ensure site emergency plans are prepared, implemented (AP GEN #17).

m) Ensure appropriate first aid supplies and trained staff to address immediate illness or injury are available at the worksite.
n) Ensure a site visitor protocol and orientation is implemented.
o) Implement a site or department specific protocol for staff that work alone.
p) Implement management practices to control/monitor the purchase, inventory, use, storage, transport, and disposal of chemicals and hazardous waste.

1.6. All employees: (teachers and all staff on a pay grid)

a) Work safely and take reasonable care to protect their own health and safety and that of all others present at the worksite.
b) Be aware of and comply with the OHS Act, Regulations, and Code and follow CTR Catholic policies, administrative procedures, health and safety program, codes of practices, safe work practices and safe work procedures.
c) Refrain from causing or participating in harassment or violence.
d) Know the hazards of their job, refuse unsafe work and participate in in training, meetings, hazard assessments, inspections and investigations when required.
e) Wear and maintain appropriate personal protective equipment as required.
f) Report to his/her supervisor safety concerns, unsafe conditions, work-related injuries, illnesses, and near misses.

1.8 Health and Safety Enforcement:

Compliance with the CTR health and safety management system and the Alberta Occupational Health and Safety legislation is necessary to maintain a healthy and safe work environment. As with any program, corrective disciplinary measures may be required to deal with non-compliance issues. Furthermore, all non-compliance issues shall be documented and placed within the individuals personnel file.

In general, the following disciplinary actions will be considered depending on the frequency and severity of the offence:

1) Coaching for improvement
2) Verbal warning
3) Written warning
4) Suspension
5) Termination

You should be aware that if you do anything to endanger another staff member or a student at any time, you will be asked to a meeting with the superintendent or their representative to discuss your future with the division. It should be noted that the provisions outlined in any *Collective Agreement* shall apply.

Housekeeping

Alberta OHS Regulations: OH&S Part 12 Section 185

Definition/Explanation:

Good housekeeping practices lead to a healthy and safe work environment. By training employees in proper housekeeping practices and by conducting routine inspections, correct housekeeping is promoted throughout the work sites.

"A clean work site is a healthy and safe work site"

Identified Hazards:

- Slip/trip and/or fall
- Cuts
- Noise Exposure
- Eye injury
- Back Strain
- Vibration
- Exposure to harmful substances, chemical residue and biological waste.

Best Practices and Procedures:

- Work locations, vehicles and buildings **shall be kept** clean and orderly at all times.
- Combustible materials such as oil soaked rags and waste **shall be kept** in approved metal containers.
- Flammable liquids such as gasoline, benzene, naphtha and paint thinner, **shall not be** used for cleaning purposes.
- **All solvents shall be kept in UL/CSA approved, properly labeled containers**. Gasoline, benzene, naphtha, paint thinner and other solvents of this class shall be handled and dispensed only from approved, properly labeled containers.
- Floors and platforms **shall be kept free** of dangerous projections or obstructions and shall be maintained reasonably free from oil, grease or water. Where the type of operation produces slippery conditions, the area shall be cleaned immediately, or mats, grates, cleats or other methods shall be used to reduce the hazard of slipping.
- Materials and supplies **shall be stored** in an orderly manner so as to prevent their falling or spreading and to eliminate tripping and stumbling.
- Emergency exits, stairways, aisles, permanent roadways, walkways and material storage areas **shall be identified** and kept clear at all times.
- Materials and supplies shall not be stored in walkways, access doors and fire exits or block access to fire equipment.
- Not more than 20% of each wall surface can have combustible decorative materials.
- **Clothing** shall be kept to a minimum behind doors as they are combustible and may impede egress.
- **No matches shall be** left in clothes placed in lockers. Rubbish and unused clothing shall not be allowed to accumulate in lockers.
- Waste material and debris **shall be removed** from work and access areas on a regular basis.
- In any building, except one provided for their storage, flammable liquids such as gasoline, benzene, naphtha, and lacquer thinner **shall be limited to 22.7 litres or five imperial gallons**, UL/CSA approved property labeled containers. This does not apply to kerosene and cleaning agents of the "Stoddard" solvent class, however, **not more than 4.54 litres or one imperial gallon** of such liquids shall be kept in any open container. The container shall be provided with a proper cover and be kept securely covered except when in actual use.
- When pouring or pumping gasoline or other flammable liquids from one container to another, **metallic contact shall be maintained between the pouring container and receiving containers**.

- **Strict adherence shall be paid to "non smoking" and "stop your motor" signs at fuel dispensing locations**.
- Nails protruding from lumber intended for re-use **must be removed or bent over** flush as soon as possible after initial disassembly

Personal Protective Equipment Care and Maintenance

Alberta OHS Regulations: OH&S Code 12 Part 18

Explanation:

Personal Protective Equipment (PPE) is the last line of defense against hazards in the workplace. We encourage one time use disposable PPE which are available at each work site. Employees use PPE on a regular basis (that is non-disposable), and this Best Practice would be applicable.

Overview:

The care and maintenance of your personal protective equipment (PPE) is integral in maintaining your personal health and safety. The best practices and procedures have been divided into the following categories:

1. Head protection
2. Foot protection
3. Limb and body protection
4. Eye and face protection
5. Hearing protection
6. Respiratory protection

Head Protection

Safety headgear is designed to protect the head from impact from falling objects, bumps, splashes from chemicals or harmful substances, and contact with energized objects and equipment

In the management of workplace health and safety within CTR, there are several different types of head protection that can be utilized which is dependent upon the type of work activity. The typical types of head protection used are hard hats in construction areas, helmets for vehicle users, and bicycle helmets. Furthermore, the standard to which the head protection must meet has been outlined in Part 18 of the Alberta OH&S Code and should always be referenced prior to purchasing new head protection or if determining existing head protection is adequate.

All head protection should be maintained on a regular basis and in accordance to the manufacturer's instructions. If attachments are used with headgear, they must be designed specifically for use with the specific headgear used. Bump caps are not considered a helmet.

Inspections and Maintenance
Proper care is required for headgear to perform efficiently. Many factors including temperature, chemical, sunlight and ultraviolet radiation (welding) affect the service life. The usual maintenance for headgear is simply washing with a mild detergent and rinsing thoroughly.

The Do's:

- Replace head protection that is pitted, holed, cracked or brittle
- Replace head protection that has been subjected to a blow even though damage cannot be seen
- Remove from service any head protection if its serviceability is in doubt
- Replace headgear and components according to manufacturer's instructions
- If you have questions regarding the head protection, contact the manufacturer or distributor.

- Clean the head protection on a regular basis
- Inspect the head protection prior to each use
- Tag out defective head protection and obtain replacement immediately.

The Don'ts:

- Drill or remove peaks of the head protection in any way
- Use solvents or paints on the shells of the head protection – may cause shell integrity to decrease
- Put stickers on shell of the head protection – may cause shell integrity to decrease
- Use any head protection that has a defective chin strap, harness or padding
- Use head protection that has been modified in any way

Foot Protection

Safety footwear is designed to protect against foot hazards in the workplace. Safety footwear protects against compression, puncture injuries, and impact.

Safety footwear is divided into three grades, which are indicated by coloured tags and symbols.

- The tag colour tells the amount of resistance the toe will supply to different weights dropped from different heights.
- The symbol indicates the strength of the sole. For example, a triangle means puncture-resistant sole able to stand 135 kg (300 ft. lbs.) of pressure without being punctured by a 5 cm (2" nail). For more information, look at OH&S Regulations or CSA Standard "Protective Footwear".
- In the management of workplace health and safety within CTR, it is recommended that only the green triangle grad of footwear, which also gives ankle support, be used.

In closing, your protective footwear should always over protect, not under protect.

The Do's

- Choose footwear according to job hazard and CSA Standards
- Lace up boot and tie laces securely; boots don't protect if they are a tripping hazard or fall off
- Use a protective boot dressing to help the boot last longer and provide greater water resistance – wet boots conduct current
- Choose a high cut boot to provide ankle support – may lesson amount of less injuries
- Clean regularly
- Inspect footwear for defects at the start of each day

The Don'ts

- Wear defective safety footwear (i.e., exposed steel toecaps)
- Under protect your feet or modify safety footwear

Limb and body Protection

Due to the nature of the work conducted throughout CTR, and the number of different hazards, it is not possible to cover specialized limb and body protection in detail. These types of hazards are known as "job exposures" (exposure to fire, temperature, extremes, body impacts, corrosives, molten metals, cuts and sharp or abrasive materials.)

PPE in the category would be items such as:

- Leg, arm, chin and belly guards
- Specialty hand pads and grips
- Leather and rubber based aprons
- Flame and chemical resistant clothing

For more information on the type of specialty PPE you require, check with workplace health and safety. With all PPE, following the manufacturer's instructions on its use, care and cleaning is critical and will help you get the full service life from your specialty PPE.

Hand PPE (Gloves and Mitts)
PPE for the hands include: finger guards, thimbles and cots, hand pads, mitts, gloves, and barrier creams. Choose hand PPE that will protect against the job hazard. Gloves should fit well and be comfortable. This type of PPE has to protect against chemicals, scrapes, abrasions, heat and cold, punctures and electrical shocks.

Types
PPE for the hands come in many forms, each designed to protect against certain hazards. Gloves most commonly used are made from leather, cotton, rubber, synthetic rubbers and other manmade materials, or combinations of materials.

Vinyl coated or leather gloves are good for providing protection while handling wood or metal objects. When selecting hand PPE, keep the following in mind; look for anything at the job site that may be a hazard to the hands. If gloves are to be used, select the proper type for the job to be done. Inspect and maintain hand PPE regularly. If in doubt about the selection or need for glove or hand PPE, consult your safety supplier, MSDS, or Workplace Health and Safety.

The Do's

- Inspect hand PPE for defects before each use
- Wash all chemical and fluids off of gloves before removing them
- Use the proper hand PPE for the job
- Follow manufacturer's instructions on the care and use of the hand PPE you are using
- Ensure exposed skin is covered – no gap between the sleeve and the hand PPE

The Don'ts

- Wear gloves when working with moving machinery – gloves can get tangled or caught
- Wear hand PPE with metal parts near electrical equipment
- Use gloves or hand protection that is worn out or defective

Eye and face protection

This PPE is designed to protect the worker from such hazards as:

- Flying objects and particles
- Molten metals
- Splashing liquids

- Ultraviolet, infrared and visible radiation (welding)

The PPE has two types**.**

1. **Basic Eye Protection**:

- Eyecup goggles
- Mono-frame goggles and spectacles with or without side shields
- CSA approved prescription spectacles with or without side shields

2. Face Protection:

- Metal mesh face shields for radiant heat or hot and humid conditions
- Chemical and impact resistant (plastic) face shields
- Welders shields or helmets with specified cover

Hardened glass prescription lenses and sport glasses are not an acceptable substitute for proper, required industrial safety eye protection.

Comfort and fit are very important in the selection of safety eyewear. Lens coating, venting or fittings may be needed to prevent fogging or to fit with regular prescription eyeglasses.

Contact lens should NOT be worn at the work site. Contact lens may trap or absorb particles or gases causing eye irritation or blindness. Hard contact lens may break into the eye when hit.

Basic eye protection should be worn with face shields. Face shields alone often aren't enough to fully protect the eyes from work hazards. When eye and face protection are required, advice from the OH&S office, MSDS, or your supplier will help in your selection.

The Do's

- Ensure your eye protection fits properly – close to the face
- Clean safety glasses daily, more often if needed
- Store safety glasses in a safe, clean, dry place when not in use
- Replace pitted, scratched, bent or poorly fitted PPE – damaged face-eye protection that interferes with vision and will not provide the protection it was designed to deliver

The Don'ts

- Modify eye/face protection
- Use eye/.face protection which does not have a CSA certification – CSA stamp for safety glasses is usually on the frame inside the temple near the hinges or the glasses

Hearing protection

Hearing Protection is designed to reduce the level of sound energy reaching the inner.

The "rule of thumb? For hearing protection is to use it when you can't carry on a conversation at a normal volume of voice when you are three feet apart.

Remember, this is only a rule of thumb. Any sound over 85 dBA requires hearing protection. Hearing loss con be very gradual, usually happening over a number of years.

The most common types of hearing protection within CTR are earplugs and earmuffs. If you choose to use the other types of hearing protection, ask your safety supplier or Workplace Health and Safety for further information.

It is important to have different styles of hearing protection available. Different types allow a better chance of a good fit. Each person's head, ear shape and size are different. One style may not fit every person on your crew. If hearing PPE does not fit properly or is painful to use, the person will not likely use it. If the hearing protection is not properly fitted, it will not supply the level of protection it was designed to deliver.

Most earplugs, if properly fitted, generally reduce noise to the point where it is comfortable (takes the sharp edge off the noise).

If your hearing protection <u>does not</u> take the sharp edge off the noise, or if workers have ringing, pain, headaches or discomfort in the ears, your operation required the advice of an expert.

Note:
An audiometric testing program must be established for employees who work in areas where noise exceeds 85 dBA on a regular basis. Band teachers must participate in Christ the Redeemer's Hearing Conservation Program. Refer to Part 16 of the OH&S Code for further information.

Respiratory protection

Respiratory protection is designed to eliminate the exposure from hazardous materials that can result in acute and chronic health effects. When an employee or contractor has the potential or knowingly will be exposed to airborne contaminants or a mixture of airborne contaminants in a concentration exceeding the Occupational Exposure Limit (OEL) or if the atmosphere has an oxygen level less than 19.5%, respiratory protection equipment must be utilized.

The information that should be considered in determining the need for respiratory protection equipment includes an analysis of:

- The nature, toxicity, and the warning properties of the contaminants – detailed review of the MSDS is required
- The concentration or likely concentration of the airborne contaminants
- The duration or likely duration of the worker's exposure to the contaminants
- The concentration of oxygen
- Availability of local and/or central exhaust systems
- Emergency response procedures.

Selection
When an employee or contractor has the potential or knowingly will be exposed to a hazard that could negatively affect the respiratory system, respiratory protection meeting a minimum standard as outlined in Part 18 Section 247 of the OH&S Code shall be utilized.

In addition, once the characteristics of the contaminants are known, contacting a supplier/manufacturer of respiratory

equipment may assist in determining the best device for the employee or contractor in relation to the task being performed.

Use
Respiratory protective equipment should be used in accordance to the manufacturer's specifications and on-the-job training activities. Furthermore, the equipment should never be shared even after it has been cleaned.

Storage
The storage of respiratory protection equipment should be carried out as per the manufacturer's specifications as well as demonstrated through on-the-job training.

Inspection
Prior to each use of respiratory protective equipment, the user shall inspect the device for any defects. If defects are noticed, the device should be tagged and removed from active service.

Maintenance
When conducting maintenance on respiratory protection equipment, the person conducting the maintenance should refer to the manufacturer's specifications as some cleaning products may destroy the equipment.

Note:
Additional information surrounding respiratory protective equipment can be found in Part 18 Section 244-250 of the OH&S Code. CTR does not own this equipment. If a service is to be performed, the service is contracted out.

Working Alone

Alberta OHS Regulations: OH&S Code Part 28 and Working Alone

Definition / Explanation:

These working alone best practices and procedures are designed to provide guidance and assistance to employees when they are required to perform tasks alone within CTR as related to the following:

1. Employees who meet clients away from their base office;
2. Employees who perform hazardous work;
3. Employees who work or travel alone; or

Working Alone:
To work alone means being the only employee at a work site and assistance is not "readily available" should the employee be injured, fall ill, or face some other emergency.

Buddy System:
A system of organizing work so the employee can be seen or heard by another employee that is working in close proximity to his or her work area.

Safety Visit Plan:
This is a plan designed to outline communication procedures and methodologies, contact personnel, check-in times, purpose of meeting and attendees.

Travel Plan:
This is a plan that outlines travel route(s), travel schedule, call-in procedures and times, all applicable contact numbers, designated check-in times, location of work sites, and a brief description of works being performed.

Call-in Failure:
When an employee fails to call-in at a designated time.

1. Employees who meet Clients away from their Base Office Potential Hazards

- Assault
- Harassment and Violence
- Robbery
- Verbal abuse

Best Practices

- Follow safe work procedures.
- Use the buddy system when possible.
- If potential for violence exists, change meeting location to a more friendly environment.
- Use a **Safety Visit Plan.**
- Establish a code word to confirm help is needed.
- If an incident occurs, always investigate so recurrence of similar situations is minimized or eliminated.

Safe Work Procedures

- Arrange meeting with client in a safe location.
- If you determine you may be placed in a potentially unsafe situation develop your safety visit plan, which should include:
  - Description of communication procedures
  - Description of communication method
  - Location of meeting
  - Purpose of meeting
  - Who you are meeting with
  - Intended time of arrival and departure
  - Check in/out schedule
  - Travel to meeting location.
  - Ensure communication devices are fully operational prior to attending the meeting.
  - Check-in with your contact and advise them of your plans.
  - Complete hazard assessment prior to starting work.
  - Conduct meeting.
  - Check-in with your contact and inform them your meeting is over and what your plans are.
  - Travel to next meeting location or back to the office.

2. Employees Who perform hazardous Work

Potential Hazards

- Various bodily injuries from improper use of equipment or equipment failure
- Exposure to hot or cold temperatures
- Assault

Best Practices

- Follow the safe work procedures.
- Use the buddy system when possible.
- Ensure the appropriate clothing, PPE and tools are available to do the job safely.
- Develop a **Travel Plan.**
- Always develop and follow check-in procedures.
- Always utilize two people during search activities related to **Call-in Failure**.

Safe Work Procedures

- Determine work activities and refer to hazard assessment for activity being performed.
- Develop a travel plan, which should include:
  - Travel route(s);
  - Travel schedule;
  - Call-in procedures and designated check-in times;
  - All applicable contact numbers;
  - Location of work sites; and
  - Brief description of works being performed.
- Travel to work site and call in when you arrive.
- Conduct hazard assessment if hazard assessment has not been done or hazards have changed.
- Perform task(s).
- Call-in as per designated call-in times.
- Complete task(s).
- Call-in and inform contact of your plans

- Travel to next work site or return to the CTR facility you are based out of.
- Call-in upon arrival at next worksite or CTR facility.

In the event of a Call-in failure:

1. Contact person shall attempt to contact employee.
2. If the employee is not reached within 15 minutes of the first call by the contact person, the contact person shall arrange for someone to travel to the work site to check on the employee.
3. As step 2 is progressing, the contact person shall continue to contact the employee.

Note: All call-in failures should be investigated as they, at a minimum, would be considered a near miss. Therefore, the Health and Safety Officer shall be informed of **all** call-in failures.

4. Employees Who Work or Travels Alone

Potential Hazards

- Automotive accident
- Exposure to hot or cold temperatures
- Vehicle breakdown
- Assistance is not "readily available"

Best Practices

- Follow the safe work procedures.
- Follow Administrative Regulations on Vehicles
- Ensure the appropriate clothing, emergency equipment, and PPE is available.
- Ensure vehicle is in good operating condition prior to travel
- Ensure first aid kit and emergencies supplies (applicable to the weather conditions) are present prior to travel.
- Develop a **Travel Plan**
- Always develop and follow check-in procedures.
- Always utilize two people during search activities related to Call-in Failure.
- Utilize Working Alone Call-out system through United Technologies

Safe Work Procedures

- Determine type of road that will be traveled on.
- Develop a travel plan, which should include:
  - Travel route(s);
  - Travel schedule;
  - Call-in procedures and designated check-in times;
  - All applicable contact numbers;
  - Location of work sites; and
  - Brief description of works being performed.
- Travel to work site and call in when you arrive.
- Perform task(s).
- Call-in as per designated call-in times.
- Complete task(s).
- Call-in and inform contact of your plans
- Travel to next work site or return to the CTR facility you are based out of.
- Call-in upon arrival at next worksite or the CTR facility.

In the event of a Call-in failure:

1. Contact person shall attempt to contact employee.

2. If the employee is not reached within 15 minutes of the first call by the contact person, the contact person shall arrange for someone to travel to the work site to check on the employee. United Tech to contact STC Emergency Number
3. As step 2 is progressing, the contact person shall continue to contact the employee.
   Note: All call-in failures should be investigated as they, at a minimum, would be considered a near miss. Therefore, the Health and Safety Officer shall be informed of **all** call-in failures.

SAFE WORK PROCEDURES

ASSISTING STUDENTS WITH PERSONAL HYGIENE NEEDS

Alberta OHS Regulations: Part 4 - Chemical Hazards, Biological Hazards and Harmful Substances; Part 14 - Lifting and Handling Loads; Part 18 - Personal Protective Equipment

Adopted:

Revised and Adopted:

Manpower: 1 person
Safety Equipment: Gloves, safety footwear
Tools:

Procedures:

- Identify primary person for toileting and designate back up.
- Use a designated washroom.
- Cover cuts and sores on hands with band-aids or dressings and use latex free gloves at all times.
- Use disposable supplies (i.e., diapers, change pads, and wipes). These should be disposed of in leak resistant bags.
- Develop a plan, in consultation with parent(s)/legal guardian(s) and health professionals for the sanitary treatment of diapering materials. If disposable diapering supplies cannot be used due to a student's medical condition, any non-disposable diaper must be leak proof and held in place without the use of diaper pins (e.g., using Velcro-style fasteners).
- Place soiled clothing in leak resistant bag and use a plastic-lined container provided by the parents to send soiled clothing, cloth diapers or plastic/rubber pants to student's home. This should be done on a daily basis.
- Use leak resistant bags for items that must be disposed of.
- Follow the lifting/transferring technique demonstrated by the occupational/physical therapist for toileting. Two staff may be required for this process (see Safe Work Practice - Lifting and Transferring Students).
- Do not rinse and reuse diapers, plastic/rubber pants, or soiled clothing.
- Do not perform lifting/transferring for purposes other than toileting until training is conducted by an authorized occupational/physical therapist.

Potential Hazards:

- Bodily fluids
- Disease/infection/viruses
- Chemicals
- Bacteria

BASIC BACK SAFETY

Alberta OHS Regulations: Part 14 - Lifting and Handling Loads

Adopted:

Revised and Adopted:

Manpower: 1 person; more for heavier loads
Safety Equipment: Dependent on load
Tools: n/a

Procedure:

- Maintain good posture.
- Use of proper lifting techniques.
- Regular exercise
- Control body weight

Maintain Good Posture (Standing)

- Balance your weight evenly on both feet.
- Tuck buttocks in to help straighten their spine.
- Pull in abdomen.
- Hold head straight.
- Relax their arms at their side.

Maintain Good Posture (Sitting)

- Sit in straight backed chairs with a firm seat (to avoid slouching);
- Keep their knees bent.
- To maintain good posture while sleeping all students and staff should:
- Sleep on their side with your knees bent (this is proven to be the best position);
- Make sure they have a firm mattress.

Lifting

- Balance your feet (have them shoulder width apart with one foot slightly ahead of the other)
- Bend your knees
- Keep your back straight
- Get a good grip on the load with your palms
- Keep the load close to your body
- Turn with your feet, not your body, and avoid twisting while lifting
- When lifting heavy loads, students are required to find assistance. Students are not allowed to catch loads.
- Students and staff should maintain their health and good physical condition by keeping up with a regular exercise program (at least three to four times a week for about 20 to 25 minutes).
- Students and staff involved in a lot of standing have to adjust their work space to ensure that they are not putting any undue strain on their backs. If students and staff find that they have to stoop to work, their work space must be adjusted so they can work standing straight.

Potential Hazards:

- Muscle strain, pulls, tears, etc.
- Recurrent back pain

BLEACHERS (SET-UP AND TAKE DOWN)

BLEACHERS (SET-UP AND TAKE DOWN)	
Alberta OHS Regulations:	Part 12 - General Safety Precautions; Part 14 - Lifting and Handling Loads
Adopted: **Revised and Adopted:**	
Manpower: **Safety Equipment:** **Tools:**	1 or more persons Safety footwear

Procedure:

- Always have two people working together to move bleachers.
- Use appropriate stick and/or hooks when moving bleachers.
- Always lock the bleachers in place when they are in the open or storage position.
- Always install hand rails (if available) on bleachers when they are in the open position.
- Periodically submit a System Service Request (SSR) to clean and lubricate bleachers to ensure easy movement of the undercarriage.
- Clean area under bleachers on a regular basis and inspect bleachers for hazards (missing bolts, loose boards, splinters, etc.).
- Follow manufacturer's instructions for use and maintenance.
- Never attempt to set-up the bleachers by yourself, this may result in injury.
- Do not use the bleachers if they cannot be moved by two people. If this occurs submit an SSR to the Maintenance Department.
- Never use excessive force to move the bleachers as this may result in injury to the employee or damage being done to the bleachers.

Potential Hazards:

- Heavy load
- Pinch points
- Moving parts
- Muscle strain
- Bruising
- Crushing of fingers

BUNSEN BURNER

BUNSEN BURNER	
Alberta OHS Regulations:	Part 18 - Personal Protective Equipment
Adopted: **Revised and Adopted:**	
Manpower: **Safety Equipment:** **Tools:**	1 person Eye protection, apron

Procedures:

- Wear appropriate personal protective equipment (chemical safety goggles, lab apron).
- Visually inspect burner and tubing to see that they are in good condition.
- Check that flints on strikers are operational.
- Clear all combustibles from area.
- Place the Bunsen burner away from any overhead shelving, equipment or light fixtures.
- Ensure all gas jets are closed before opening the master gas valve.
- Ensure master gas valve is open only for the duration of required activity.
- Review safety standards with students prior to performing the task.
- Do not use matches or lighters to ignite burners.
- Do not handle a hot burner immediately after use.
- Do not leave open flames unattended and never leave the laboratory while the burner is on.
- Do not allow students to use this equipment unless there is active, in the area, supervision by a teacher or teaching assistant.

Potential Hazards:

- Burns
- Fire
- Gas leaks

CANDLE SAFETY

CANDLE SAFETY

Alberta OHS Regulations:

Adopted: Jan. 14, 2009

Revised and Adopted:

Manpower:
Safety Equipment:
Tools:

Note: Although candle burning is a part of Religious Practices, it should be noted that battery operated candles are a safe and economical way of reducing the risk of fire and burns. If candles are to be used, follow the following precautions:

Procedures:

- Remove all packaging before lighting.
- Never leave a burning candle unattended.
- Keep burning candles within site at all times.
- Always keep candles well away from flammable materials like curtains, shades, decorative items, plants, etc.
- Never burn a candle to a point less than ½ inch from the candle bottom. DISCONTINUE USE OF THE CANDLE WHEN ½ INCH REMAINS. This will prevent damage to furniture and/or possible candle container breakage.
- Extinguishing the candle flam with a candlesnuffer is the preferred method. If a candlesnuffer is not available, extinguish the candle by holding your finger in the front of the flam before blowing. This will cause airflow around the finger, extinguishing the candle from both sides, and will prevent hot wax from spattering.
- Keep all flammable items and children away from burning candles.
- Keep all matches and lighters out of the reach of children and teach everyone the rules of safe candles use.
- It is always best to burn candles in appropriate holders placed on heat resistant surfaces.
- Do not place candles in or around decorative room fragrance, which can easily catch on fire.
- Keep the wax pool free of all wick trimmings, matches or foreign objects that could present a fire hazard.
- Never burn candles in cracked, chipped or scratched containers.
- Do not allow the flam to contact the container's surface directly.
- Place lighted candles at least 3 inches apart from one another.
- Never move a candle when it is lit.
- Never touch or move any candle or candle container when the wax is liquid.
- Keep candles out of drafts while burning.
- Extinguish candle if it smokes, flickers repeatedly, or flame becomes too high.

Potential Hazards:

- Fire
- Burns

CELL PHONE USAGE WHILE DRIVING

CELL PHONE USAGE WHILE DRIVING
Alberta OHS Regulations: N/A
Adopted: **Revised and Adopted:**
Manpower: 1 person **Safety Equipment:** **Tools:**

Procedures:

- Ensure hands-free device is operational.
- Inspect cell phone and ensure it is free of defects.
- If defects are noted, tag out the phone and inform your supervisor.
- Always make driving your first priority.
- Is possible, allow the voice mail to take the phone call.
- In the event that you answer a call while driving, safely pull of the road and continue the call.
- Ensure hazard lights are engaged while pulled off an active roadway.
- Take the necessary precautions when re-entering the flow of traffic.
- When possible, utilize hands-free feature.
- Avoid engaging in stressful or emotional conversations.
- Void looking up phone numbers on your cellular phone while driving.
  Avoid taking notes while driving.

Potential Hazards:

- Vehicle Collision
- Damage to vehicle
- Personal injury

CHEMICAL HAZARDS

CHEMICAL HAZARDS	
Alberta OHS Regulations:	Part 4 - Chemical Hazards, Biological Hazards, and Harmful Substances; Part 10 - Fire and Explosion Hazards; Part 18 - Personal Protective Equipment; Part 29 - Workplace Hazardous Information System (WHMIS); Schedule 1 - Chemical Substances
Adopted: **Revised and Adopted:**	
Manpower: **Safety Equipment:** **Tools:**	1 person Protective eyewear, protective gloves, apron, respirator (dependent on material)

Procedures:

Solvent Use in the Art Studios

- Solvent are used in all media areas as thinners, cleaners and mediums and they present risks of inhalation, absorption and fire. In most instances, safer, low-risk solvents can be substituted for ones that are more hazardous and small quantities are adequate to do the job.
- When a solvent must be used, odourless paint thinners are preferred.
- In choosing approved solvents, look at the following criteria:

    1. A high flash point
    2. A low evaporation rate
    3. A high TLV (concentration of parts per million that can be breathed for an extended period without adverse effects)
    4. Low toxicity (such as removal of aromatic hydrocarbons)

- Read and follow posted Solvent Usage and Printmaking Cleaning Procedures to keep solvent usage to a minimum.
- Avoid skin contact with solvents by wearing solvent-resistant gloves or barrier creams.
- Never use solvents to clean inks from hands.
- Never use solvents near sources of heat or spark.
- Solvents must be stored in cabinets designed for flammable materials when not in use.

General Precautions

- Read and familiarize yourself with the posted Safety Rules and Material Safety Data Sheets (MSDS) provided for all chemicals you will use.
- Always wear the proper Personal Protective Equipment for the chemicals you are using.
- Substitute safer products and processes whenever possible. Consult the CHRIST THE REDEEMER technician or instructor.
- Check that ventilation system is functioning properly.
- Consult instructor or technician before altering or experimenting with new processes. Heating or combining some substances can increase their potential hazards. Sanding, grinding and polishing some materials can release toxins.
- Follow Safe Work Procedures for the chemicals you will be using.
- If students/staff bring in chemicals from an outside source, they MUST provide the CHRIST THE REDEEMER staff with a current MSDS for any potential material or substances that are not on file. This must be done prior to the use of the product.

- Consult with your instructor or technician for information and safe substitution of aerosol spray products.
- Before using AEROSOL spray products, verify the spray nozzle is pointed away from the user and if used outside, protective eye wear should be worn
- CHRIST THE REDEEMER has a strict disposal policy that is posted in all studios. This policy must be followed at all times.
- DO NOT POUR SOLVENTS DOWN SINKS.
- When in doubt, ask your instructor or the instructor or technician for assistance.

Potential Hazards:

- Inhalation
- Fire and/or Explosions
- Absorption through skin
- Dusts (sawdust, charcoal, pastel, rosin)
- Welding Fumes
- Environmental damage
- All solvents can cause dermatitis and defatting of the skin from prolonged or repeated exposure
- Inhalation of high concentrations of turpentine or mineral spirits can cause respiratory irritation and narcosis (dizziness, nausea, fatigue, loss of coordination, coma, etc.)
- Chronic inhalation of large amounts of mineral spirits could cause brain damage
- Some solvents may cause photosensitization of the skin
- Ingestion of solvents can be fatal

CONCENTRATED ACIDS – USE AND STORAGE

CONCENTRATED ACIDS – USE AND STORAGE	
Alberta OHS Regulations:	Part 4 - Chemical Hazards, Biological Hazards, and Harmful Substances; Part 10 - Fire and Explosion Hazards; Part 18 - Personal Protective Equipment; Part 29 - Workplace Hazardous Information System (WHMIS); Schedule 1 - Chemical Substances
Adopted: **Revised and Adopted:**	
Manpower: **Safety Equipment:** **Tools:**	1 person Protective eyewear, protective gloves, apron, respirator (dependent on material), eyewash station

Procedures:

- Review Material Safety Data Sheet (MSDS) for specific acid.
- Visually inspect stock bottle for broken lids, container cracks, etc. before picking up bottle.
- Store acids with concentrations greater than 2M in vented acid cabinets.
- Store nitric acid away from other concentrated acids.
- Vent nitric acid bottles regularly (monthly).
- Store acetic acid in a flammable cabinet away from inorganic acids.
- Dilute concentrated acids in vented fume hoods.
- Wear appropriate personal protective equipment (chemical safety goggles, gloves and lab coat/apron).
- Hold stock bottle by placing hand over bottle label.
- Always add acid to water by slowly pouring concentrated acid down the side of the flask into the distilled water.
- Swirl solution constantly while diluting.
- Apply workplace label to the new container in which acid will be stored.
- Transport concentrated acids in protective sleeves while wearing required personal protective equipment.
- Ensure eye wash station and shower are readily available.
- Neutralize acid spills with sodium bicarbonate (baking soda) and dilute with water before cleaning up.
- Do not work alone.
- Do not allow high school students to use concentrated acids unless there is active, in the area, supervision by a teacher or teaching assistant.
- Do not have concentrated acids in junior high schools.

Potential Hazards:

- Chemical reactions
- Burns
- Fumes

DISINFECTING (including bleach) SOLUTION FOR SANITIZATION AND DISINFECTION (use and preparation)

Alberta OHS Regulations:	Part 4 - Chemical Hazards, Biological Hazards, and Harmful Substances; Part 10 - Fire and Explosion Hazards; Part 18 - Personal Protective Equipment; Part 29 - Workplace Hazardous Information System (WHMIS); Schedule 1 - Chemical Substances
Adopted: **Revised and Adopted:**	
Manpower: **Safety Equipment:** **Tools:**	1 person Eye protection, gloves, non-slip footwear, respiratory protection (as needed)

Procedure:

- Review Safety Data Sheet (SDS) for bleach.
- Use personal protective equipment (i.e., rubber gloves and chemical goggles when decanting).
- Prepare solution in a well-ventilated room.
- Use appropriate concentrations of bleach for the following tasks:
  - Clean up of blood and body fluids requires a 0.5% bleach solution:
  - Use one part household chlorine bleach 50ml and nine parts water (450ml). Use the unscented variety of bleach. Prepare fresh daily.
- When doing laundry a 0.01% bleach solution is required:
  - Use one part household chlorine bleach (125ml) to be mixed with about 500 parts water (65 litres or one washer load).
  - Surface cleaning and soaking of glassware or plastic items requires a 0.1% bleach solution):
- Use one part household chlorine bleach (20ml) to be mixed with about 50 parts water (1 litre) or 250ml bleach to be mixed with 12.6 litres of water (average size sink).
- Apply work place label to container in which bleach solution will be stored.
- Store bleach and bleach solution in area which has restricted student access.
- Avoid mixing with other chemicals or cleaning products.
- Do not allow bleach solution to come in contact with skin or eyes.
- Do not breathe vapours or mists.
- Never mix bleach with chemicals or other cleaners as this may result in a chemical reaction that would produce dangerous gas (i.e., chlorine gas).
- Isolate the area and/or person until body fluids are cleaned up.
- Cover and Collect fluid with towel or other absorbent materials.
- Thoroughly wet the contaminated area(s) with disinfectant. For blood spills let disinfectant site for 10 minutes.
- After wiping up disinfectant, place all clean-up materials in a double bag and dispose in outside commercial garbage container.
- Spray gloves with disinfectant before taking them off and thoroughly was hands with soap and water after removal.
- Remove contaminated clothing and thoroughly was any exposed areas on person(s) with soap.

Potential Hazards:

- Contact with bleach (liquid or vapour)
- Interactions between chemicals
- Skin and eye irritation
- Throat and lung irritation
- Loss of consciousness

DISSECTING SPECIMENS

DISSECTING SPECIMENS	
Alberta OHS Regulations:	Part 4 - Chemical Hazards, Biological Hazards and Harmful Substances; Part 18 - Personal Protective Equipment
Adopted: **Revised and Adopted:**	
Manpower: **Safety Equipment:** **Tools:**	1 person Gloves, eye protection, apron

Procedures:

- Wear appropriate personal protective equipment (chemical safety goggles, non-latex gloves, lab apron).
- Specimens must be obtained from District sanctioned sources.
- Consult current District directives regarding use of approved specimens to avoid possible infected specimens.
- Review Material Safety Data Sheets (MSDS) for formalin or other preservatives used.
- Review safety standards for use of dissecting instruments and handling of specimens with students.
- Ensure eye wash station is readily available.
- Rinse specimens thoroughly under running water.
- Distribution and collection should be directly controlled by the teacher.
- The same person that is cutting should hold the specimen to reduce risk of cuts.
- Remove blades from scalpel using protective gloves or blade removal kit.
- Ensure soap is available to wash hands after dissection.
- Ensure instruments and cutting surfaces are thoroughly cleaned by a teacher or teacher assistant after dissections are completed.
- Establish procedures with a caretaker for collection and disposal of sharps and specimens.
- Dispose of specimens after dissection in a double bag. Inform caretaker of contents before disposal in regular garbage.
- Dispose of scalpel blades and pins in appropriate container (designated broken glass container). These containers may then be disposed of in the regular garbage.
- Do not throw used blades or pins directly into garbage.
- Do not allow students to dissect specimens unless there is active, in the area, supervision by a teacher or teaching assistant.

Potential Hazards:

- Cuts
- Punctures
- Use of non-approved specimens
- Contact with formalin or other preservative

ELECTRICAL DEVICES

Alberta OHS Regulations:	Part 15 - Managing the Control of Hazardous Energy; Part 18 - Personal Protective Equipment; Part 25 - Tools, Equipment and Machinery
Adopted:	
Revised and Adopted:	
Manpower:	1 person
Safety Equipment:	n/a
Tools:	n/a

Procedure:

- Read instructions before using any electrical device.
- Notify your instructor or technician of any faulty, damaged or frayed cords.
- Never plug too many cords into one outlet. If using more than two devices, use an approved power bar so that the equipment is grounded properly.
- Make sure your hands are dry before plugging in an appliance.
- Do not string cords across work areas. Tape them down to the floor.
- Unplug an electrical device before starting to work on it.
- Use three prong plugs.
- Pull the plug – not the cord.
- Keep cords free from water, oil and heat.
- Use extension cords for temporary jobs only.
- Do not use light duty cords for heavy-duty work.
- Do not tie cords in knots.
- Do not carry devices by the cord.
- Never break the third prong off the plug.
- Switch the device off before connecting to a power source.
- Turn off, disconnect and then adjust the device.
- Do not use electrical devices when an area contains explosive vapours or gases.
- Do not clean devices with flammable or toxic substances.

Maintenance and Repair:

- Inspect cords and plugs on a regular basis.
- Leave repairs to a competent technician.

Potential Hazards:

- Electrocution
- Fire

ERGONOMICS

Alberta OHS Regulations: n/a

Adopted:

Revised and Adopted:

Manpower: 1 person; more for lifting heavy loads or objects
Safety Equipment: Wrist supports (typing, vibration dampening equipment (for vibratory tools)
Tools: n/a

Procedure:

- Ensure that all machine controls are reachable and easily accessible prior to operation.
- Ensure that lighting is adequate to perform task activities.
- Arrange work spaces and areas to avoid the need for carrying objects overhead and for overreaching.
- Vibration dampening products should be used on vibratory type tools and equipment where applicable.
- Plan work activities to reduce or eliminate repeated manual lifting where possible.

Chair Guidelines

- Thigh should be parallel to floor.
- Feet should be on floor.
- 2-3 finger breadth between knee and front edge of seat pan.
- Adequate back support.
- Shoulders relaxed and level.
- Elbows at 90 degrees.
- Seat pan well padded.
- Know how to adjust and operate your chair.

Desk Guidelines

- Desk height is equal to seated elbow height.
- Adequate space.
- Minimal reaching above and below shoulder.

Keyboard & Mouse Guidelines

- Relaxed arm position during keyboarding.
- Wrists in neutral flexion/extension.
- Neutral wrist deviation.
- Relaxed fingers.
- Do not slouch forward. Maintain natural S-curve in back.

Monitor & Document Guidelines

- Posture of head should be neutral.
- Eyes looking forward.
- Monitor should be arm’s length.
- Upper torso relaxed against chair back.
- Document and monitor should be the same distance and height from eyes.

- Minimize glare.

Telephone & Job Variety

- Neck and head are centered and easy to reach.
- Visual rest every 30 minutes.
- Regular stretch breaks and alternate task schedule.

Potential Hazards:

- Muscle strain
- Eye strain
- Back pain

Note: An ergonomic assessment may be requested provided it is supported by a medical doctor.

GENIE LIFT/HANDY HERMAN - OPERATION

GENIE LIFT - OPERATION	
Alberta OHS Regulations:	Part 9 - Fall Protection; Part 18 - Personal Protective Equipment; Part 25 - Tools, Equipment and Machinery
Adopted: **Revised and Adopted:**	
Manpower: **Safety Equipment:** **Tools:**	2 or more persons Safety footwear, head protection, fall protection (if necessary)

Procedures:

- Participate in training to become a certified operator.
- Obey the instructions and safety rules in the manufacturer's operator manual. (Contained in manual box on lift)
- Inspect the **worksite** for hazards including overhead obstructions. Complete Hazard Report Form if necessary.
- Have two people lift and install battery pack.
- Have a ground person present in facility and in frequent communication with operator. Ground person should be aware of emergency procedures for operator assistance.
- Provide a safety zone around the lift by using orange traffic cones provided.
- Always perform a **pre-operation inspection**.
- Always perform **function tests** prior to use.
- Only use the machine as it was intended.
- Use appropriate personal protective equipment (**hard hats** are mandatory and are provided with the lift for operator and ground person).
- Take precautions when moving a Genie Lift up/down a sloped surface.
- Be aware of crushing hazard when grasping the platform guard rail.
- Ensure that the outriggers are disengaged before storing. Store in area not accessible to unauthorized personnel or students.
- Never use the platform unless the base is level. (All four outriggers are properly installed and the leveling jacks firmly contact the floor.)
- Never exit the platform while raised. (If a power failure occurs, have ground personnel activate the manual-lowering valve.)
- Never allow untrained personnel or students to use this machine.
- Never sit, stand or climb on the platform guardrails.
- Never have two people on the platform at one time.
- Never operate machine unless all systems are in good operating condition.

Potential Hazards:

- Falls
- Electrocution
- Fluids (hydraulic, battery)
- Dropped items from raised lift
- Injury from moving parts
- Collision

HAND AND POWER TOOL OPERATION

HAND AND POWER TOOL OPERATION
Alberta OHS Regulations: OH&S Code Part 18 Section 229, 233, 234,242,244
Adopted: **Revised and Adopted:**
Manpower: **Safety Equipment:** CSA approved hard hat, CSA approved eye protection, face shield, CSA approved hearing protection, CSA approved respirator, leather gloves, fire retardant coveralls, close fitting, and CSA approved Steel-toed footwear. *Note: Some of he PPE outlined above will only be required depending on the hazards encountered while using a specific tool* **Tools:** Screwdriver or wrench to make tool adjustments.
• Procedures: • Tools • Prior to setting up and using portable power tools or hand tools, inspect all components by looking for signs of wear and tear as this could result in a failure of the tool. • A pre-use inspection should be completed before each use or when you feel the integrity of the equipment being used has been compromised. • If defects are noted, do not use the tool and tag it out. Once the tag out is complete, inform your supervisor immediately. • Ensure all outlined PPE is available prior to use. • Ensure power cords, tools and work material area is in an area that will minimize the tripping potential. • Inform co-workers of activity prior to the commencement of work. • Keep work area free of bystanders at all times. • Use correct tool for the job – DO NOT IMPROVISE! • Keep tools in good repair and inspect prior to each use. • Keep cutting tool edges sharp and store with edges protected. • Files, chisels, hammers, screwdrivers, etc. must have appropriate handles. • Use brass or non-sparking tools in flammable or explosive dusts area, if possible. • Carry sharp tools in a sheath or box. • Avoid laying tools on platforms where they can all on individuals working below. • Never throw tools; use a rope and bucket to move tools to a higher or lower area. • Do not force tools beyond their capability or use “cheaters” to increase their capability. • Only use tools intended as pry bars. • Always maintain safe working distances between works. • Portable Power Tools • If unfamiliar with power tool – obtain training prior to use. • Each tool must be equipped with an on/off switch that cuts off when pressure on the switch is released. • Avoid using power tools in close proximity to water. • Always unplug the power cord by grasping the plug, not by jerking the cord. • Use the GFI at the power source when possible • Prior to making any adjustments to an electrical powered tool, ensure the tool is unplugged from the power source. • All power tools must have appropriate guards in place when being used. • Never remove or tamper with a guard that was installed by the manufacturer. • Flying objects can result from operating almost any power tool, so you must always;

- Keep the work area clear of bystanders
- Use proper eye protection (i.e. goggles or face shield).

- To assist in preventing injury resulting from contact of moving parts, you should:
    - Keep moving parts directed away from your body.

- Never touch a powered part unless the power source is disconnected (such as drills, chucks, blades, and bits).
- Allow power tool to completely stop moving prior to maintaining tool
- Allow power tool to cool down prior to conducting maintenance.
- Always maintain safe working distances between works.
- Always follow proper housekeeping practices after use of the tool and its associated components is completed.
- Always put tools and power equipment back in their correct storage location after each use.

Potential Hazards:

- Slips, trip and/or fall
- Noise exposure
- Cuts
- Burns
- Back Strain
- Exposure to heat and cold
- Fire
- Explosion
- Electrocution
- Overhead hazards

HAND DRILLS (CORDED, CORDLESS, HAMMER)

HAND DRILLS (CORDED, CORDLESS, HAMMER)	
Alberta OHS Regulations:	Part 18 - Personal Protective Equipment; Part 25 - Tools, Equipment and Machinery
Adopted: **Revised and Adopted:**	
Manpower: **Safety Equipment:** **Tools:**	1 person Eye protection, apron, face shield, hearing protection, manual power-off switch

Procedures:

- Always wear safety glasses while using drills.
- Disconnect the air and electrical supplies when replacing drill bits.
- Disconnect the power source when replacing drill bits.
- Always inspect drill bits before use; never use a dull or damaged drill bit.
- Make sure drill bit is tightly in chuck before drilling.
- Use the right drill bit for the right material. Not all drill bits can be used in metal, wood or masonry.
- Always remove chuck key before drilling.
- Hold the drill securely with one or both hands; do not force the drill with too much pressure, as you could break the bit.

Potential Hazards:

- Cut and stab injuries from drill bit
- Eye and skin injuries from flying debris
- Twisting of the wrist

HAND TOOLS

HAND TOOLS	
Alberta OHS Regulations:	Part 18 - Personal Protective Equipment; Part 25 - Tools, Equipment and Machinery
Adopted: **Revised and Adopted:**	
Manpower: **Safety Equipment:** **Tools:**	1 person Protective eyewear, hearing protection (as needed)

Procedures:

- The improper use of hand tools is a major cause of many minor but painful injuries.
- Use the proper tools.
- Replace worn parts such as ratchet cogs, dies, handles and shields.
- Keep chisels, screwdrivers and punches properly dressed.
- Discard defective tools which cannot be repaired.
- Always put tools away clean and in their proper storage location.
- Chainsaws must be kept clean and sharp.
- Never remove guards or safety devices and always use them properly by following proper procedures.

Defective Tools:

- Defective tools can cause serious and painful injuries. If a tool is defective in some way, DON'T USE IT.
- Split or cracked handles.
- Chipped or broken drill bits.
- Wrenches with worn out jaws.
- Tools which are not complete, such as files without handles.
- Never use a defective tool.
- Double check all tools prior to use.
- Ensure defective tools are removed from service and repaired.

Potential Hazards:

- Hitting your own hand or fingers.
- Flying debris.
- Cuts
- Crush injuries

HEATING LIQUID IN A TEST TUBE (WITH A BUNSEN BURNER)

BUNSEN BURNER	
Alberta OHS Regulations:	Part 18 - Personal Protective Equipment
Adopted: **Revised and Adopted:**	
Manpower: **Safety Equipment:** **Tools:**	1 person Eye protection, apron

Procedures:

- Wear appropriate personal protective equipment (chemical safety goggles, lab apron).
- Review Material Safety Data Sheets (MSDS) for specific chemicals.
- Hold test tube at maximum feasible distance from flame.
- Gently move test tube to avoid overheating one area.
- Point test tube away from all people.
- Use correct tongs for holding test tube.
- Refer to Bunsen burner Safe Work Practice.
- Heat contents in a fume hood if toxic vapours will be produced.
- Ensure glassware is clean.
- Ensure eye wash station is readily available.
- Ensure spill kits are readily available.
- Do not adjust grip on test tube holder while heating.
- Do not heat flammable liquids with an open flame.
- Do not heat liquid in a sealed test tube.
- Do not leave unattended.
- Do not allow students to perform this procedure unless there is active, in the area, supervision by a teacher or teaching assistant.

Potential Hazards:

- Burns
- Fire
- Gas leaks

INDUCTION COIL

INDUCTION COIL	
Alberta OHS Regulations:	Part 15 - Managing the Control of Hazardous Energy; Part 18 - Personal Protective Equipment
Adopted: **Revised and Adopted:**	
Manpower: **Safety Equipment:** **Tools:**	1 person Eye protection, apron

Procedures:

- Handle with extreme caution.
- Follow manufacturer's instructions.
- Use equipment only as a teacher demonstration.
- Complete demonstration on a stable and dry surface.
- Do not touch ladder terminals.
- Do not touch any part of equipment when it is in operation.
- Do not use if equipment is damaged.
- Do not allow students to operate.

Potential Hazards:

- Electrocution
- Electromagnetic fields
- High voltage/current

INSERTING/REMOVING GLASS TUBING

INSERTING/REMOVING GLASS TUBING	
Alberta OHS Regulations:	Part 18 - Personal Protective Equipment
Adopted: **Revised and Adopted:**	
Manpower: **Safety Equipment:** **Tools:**	1 person Eye protection, gloves

Procedures:

- Wear appropriate personal protective equipment (impact glasses or goggles, heavy gloves).
- Check size of tube compared to hole size.
- Use a safety grip or heavy gloves to hold tubing.
- Lubricate outside of glass tube with silicon.
- Check integrity of glass tubing.
- Use safety gloves for removal of glass tubing.
- Dispose of broken glass in appropriate container (designated broken glass container). These containers may then be disposed of in the regular garbage.
- Review safety standards with students prior to performing the task.
- Do not use excessive force to push glass tubing into stopper.
- Do not use inappropriate sized tubing.
- Do not use lubricants other than silicon.
- Do not allow students to perform this procedure unless there is active, in the area, supervision by a teacher or teaching assistant.

Potential Hazards:

- Cuts
- Impaling

KNIVES and OTHER UTENSILS

KNIVES	
Alberta OHS Regulations:	Part 18 - Personal Protective Equipment
Adopted: **Revised and Adopted:**	
Manpower: **Safety Equipment:** **Tools:**	1 person Protective gloves (depending on task); protective eyewear (depending on task) Knives, knife sharpener

Procedures:

- Knives cause more disabling injuries than any other hand tool.
- Always keep knives sharp and utensils in good repair.
- Always cut away from the body. If not possible, keep hands clear of the knife and utensils path.
- Always cut with a smooth, non-jerky motion.
- Never store knives in your pocket.
- While working, keep knives with edge or point down in knife pouch.
- Store knives and cleavers in a designated area when not in use and never store with the blades exposed.
- NEVER extend the blade fully on a retractable blade knife.
- Knives must be sheathed, kept in a block or stored in a manner that discourages an inadvertent cut when not in use.
- Always keep free hand clear of knife. Keep your fingers and thumbs out of the way of the cutting line.
- Always ensure hands are dry while cutting.
- All cuts must be disinfected and bandaged immediately. All cutting equipment which has been exposed to human blood must be sanitized immediately.
- Never try and catch a falling knife.
- Knives must be kept sharp so that excessive pressure is not required to cut.
- Never leave a knife under any other object.
- Move with caution when taking knives to and from their storage area. Carry knives with the cutting edge angled slightly away from your body with tip pointed down to your side.
- Knives should never be stored in a drawer or on a rack with any other utensil. Always store with the points away from the user.
- Knives should be washed separately, one at a time, and should never be released in the dishwater.
- When finished with a knife, put it away.
- Place a knife down on a clean surface for another person to use versus handing the knife to that person.
- Never place a dirty knife in the sink after usage. You or someone else may reach into the sink and get cut unknowingly. You may place them in a dishwasher in a “knives only” compartment.
- Do not interrupt or talk with others who are using knives or other sharp utensils. They may get distracted and accidentally hurt themselves.

Maintenance and Repair:

- Removed damaged knives and utensils from service and have them replaced and/or repaired by a qualified individual.

Potential Hazards:

- Cuts
- Loss of body parts (i.e. fingers, hands, limbs, etc.)
- Blood borne pathogens (i.e. hepatitis)

LIFTING OR TRANSFERRING STUDENTS

Alberta OHS Regulations: Part 14 - Lifting and Handling Loads

Adopted:

Revised and Adopted:

Manpower: 1 person; more for heavier loads
Safety Equipment: Dependent on load
Tools: n/a

Procedure:

- Have principal/designate notify authorized occupational/physical therapist to provide training.
- Ensure annual training, where required, is conducted by authorized occupational/physical therapist.
- Ensure that the principal/designate in consultation with parent/legal guardian establishes an interim plan while waiting for training. Interim plan options may include:
    - The parent/legal guardian is available to transfer student when required.
    - The student does not attend school until the teacher and/or assistant is trained by an authorized occupational/physical therapist.
    - Lifting/transferring prior to training for a particular student may be done if staff involved has a history of training in lifting/transferring, but only for toileting. Two staff members should be involved when lift/transfer is performed.
- Contact authorized occupational/physical therapist for additional training if the staff member still feels uncertain after initial training session. Have two staff members involved until additional training occurs and only perform lifts/transfers for toileting.
- Contact authorized occupational/physical therapist for a new assessment and additional training if there are any changes to the student's condition.
- Do not use specialized student lifting equipment until an authorized occupational/physical therapist has demonstrated the proper use of the equipment.
- Do not perform lifting/transferring for purposes other than toileting until training is conducted by an authorized occupational/physical therapist.

Potential Hazards:

- Muscle strain, pulls, tears, etc.
- Recurrent back pain

OFFICE GENERAL SAFETY

Alberta OHS Regulations:

Adopted:

Revised and Adopted:

Manpower: 1 person
Safety Equipment:
Tools:

Procedures:

- Keep the area under the desk clear of obstructions.
- Check power cords, extension cords & other wiring for fraying, broken connections & other wear & tear.
  - Keep cords & wiring from becoming entangled & creating a trip hazard.
  - Keep surfaces as dry & clean as possible. Wipe up spills or call Building Services to have the janitor mop up if necessary.
- Keep area mats & other floor coverings in place and in good condition to prevent slip, trip and fall hazards.
- Portable space heaters must be approved by your TL or manager before use.
  - They must have an “anti-tip” shut off feature.
  - They must be shut off if left unattended for more than 15 minutes or when you leave your station for your shift.
- Keep any combustible materials a safe distance from the heater at all times.
- Inspect your work area for sharp corners or edges or points that could cause cuts. If you discover any of these hazards report these to your TL or manager for repair.
  - Scissors, paper cutters, pins, staples, utility knives & blades, letter openers are all examples of items commonly used in any office that require care when using to avoid cuts.
- Hot surfaces on laminators, copiers & other equipment. Look for labels, decals and other indicators that show where components or surfaces may be hot before touching.
- Filing cabinets:
  - Load from bottom to top and back to front to keep cabinets stable.
  - Open only 1 drawer at a time to avoid tip-over.
  - Watch your toes as you open bottom drawers.

Potential Hazards:

- Slips, trips and falls
- Electrocution
- Fire
- Cuts
- Burns

PAINT AND PAINT STORAGE

PAINT AND PAINT STORAGE	
Alberta OHS Regulations:	Part 4 - Chemical Hazards, Biological Hazards, and Harmful Substances; Part 10 - Fire and Explosion Hazards; Part 29 - Workplace Hazardous Information System (WHMIS); Schedule 1 - Chemical Substances
Adopted:	
Revised and Adopted:	
Manpower:	1 person
Safety Equipment:	Depending on paints: Gloves, barrier cream, eye protection, apron, respiratory protection, ventilation system
Tools:	Brushes

Procedures:

- Review MSDS and follow recommendations for personal protective equipment, storage and handling practices.
- When painting with a brush, on or near energized parts at 600 volts or above, the brush shall be attached to an approved insulated handle.
- Adequate ventilation shall be maintained in enclosed areas when painting.
- Only approved solvents shall be used to clean brushes. The solvent shall be disposed of properly in approved containers in accordance with environmental procedures.
- Before using AEROSOL spray products, verify the spray nozzle is pointed away from the user and if used outside, protective eye wear should be worn.
- Open flames shall not be permitted in the area where painting is being done.
- Approved respirators shall be worn when spray painting is being done.
- Don’t wear contact lenses while painting; they can hold harmful chemical splashes against your eyes.
- Never eat, drink or smoke while painting.
- Air pressure to paint spray guns shall be properly regulated.
- Oil-based paint, varnishes and paint thinners shall be kept and transported in approved containers.
- When oil-based paint is kept in the original container, the lid shall be properly sealed so vapors do not escape. When not in use, containers of paint, lacquer, varnish, and thinners shall not be left open.
- Oil-based paint, lacquers, and thinners shall be stored in an approved storage area, where there is adequate ventilation and no excessive heat.
- Pressurized cans of paint lacquer, etc. shall not be left in direct sunlight or where there is excessive heat. When not in use, pressurized cans with recoverable product shall be stored in an approved storage area. Empty cans and cans with non-recoverable product shall be disposed of properly. They shall not be punctured or placed in a fire.

Potential Hazards:

- Eye injury/irritation
- Headaches
- Fire
- Explosion
- Toxic fumes
- Poisoning via skin contact, inhalation, ingestion

PAPER CUTTER

Alberta OHS Regulations: n/a

Adopted:

Revised and Adopted:

Manpower: 1 person
Safety Equipment:
Tools:

Procedures:

- Never put fingers or objects other than paper (like paper clips or staples) into the paper cutter.
- Keep fingers away from the cutting edge.
- Never try to transport a cutter by the handle or the blade.
- Make sure that the cutting guard is in place.
- Concentrate on the cutting task and be sure that your hands, fingers and clothing are clear from the blade.
- Secure the cutter with a locking device after use.

Potential Hazards:

- Cuts
- Amputations

PAPER SHREDDER

Alberta OHS Regulations: n/a

Adopted:

Revised and Adopted:

Manpower: 1 person
Safety Equipment:
Tools:

Procedures:

- Never put fingers or objects other than paper (like paper clips or staples) into the shredded feed opening.
- Keep jewelry, long hair, ties, lanyards, etc. away from the paper shredder feed opening.
- Feed paper smoothly into the shredder; do not force the paper in.
- If there is a paper jam, and forward and reverse buttons don't move the paper, disconnect the power source before attempting to remove the jammed paper.
- If the shredded motor overheats, turn off the shredder for at least 15 minutes, allowing the motor to cool before using again.
- Locate the paper shredder and its power cord outside of foot traffic areas.
- Always be aware and focus on the shredding task when using a paper shredder.
- Shred paper in small quantities.
- Always disconnect the power source before removing and emptying the waste box.

Potential Hazards:

- Cuts
- Entangling loose hair/objects in machine
- Jams

PORTABLE LADDERS

PORTABLE LADDERS	
Alberta OHS Regulations:	OH&S Code Part 8 – Sections 133- 137 and Part 18
Adopted: **Revised and Adopted:**	
Manpower: **Safety Equipment:** **Tools:**	1 person OR 2 Proper footwear, including steel toed boots or flat shoes with good soles (no heels higher than 1 inch).

Procedures:

- All ladders should be CSA approved
- Prior to setting up the ladder, inspect it by looking for any signs of wear or damage that may cause it to collapse or tip. Check each day prior to use, or if you feel something may be affected, the soundness of the ladder
- Use the right ladder for the right job. Check manufacturer's specifications
- Use extreme caution when around electrical power lines or near electrical sources.
- Surface should be level and dry
- Carefully lift the ladder into place keeping it balanced, watch for other workers nearby and any power sources in the area
- Once extension ladder is in place, the ladder must be secured to side of building. Tie off to flashing using a bungee cord. It should be secure enough so that when the work is complete on the roof, you are able to come back down the ladder.
- Best case would involve 2 employees , one on the bottom while one climbs to perform their function and ties off
- Extension ladder should be at proper angle – 75 degrees or one horizontal foot to every four vertical feet
- Step ladder should be fully apart with hinges locked.
- The minimum overlap on an extension ladder is three feet unless otherwise specified by the manufacturer.
- Protect the ladder with barricades if it could be struck by pedestrians or moving equipment.
- Never place a ladder in front of a door opening towards the ladder unless the door is open, locked or guarded.
- Never use last two rungs of extension ladder of the top step of a step ladder.
- When climbing up or down ladder, worker shall face the ladder using the
- 3 point grip method.
- Never over reach so as to unbalance the ladder. Climb down fully and move the ladder, never "walk" or "jump" the ladder into place
- Never carry heavy equipment or materials, or large bulky objects up a ladder
- Use a rope to pull materials and tools up to work area.
- Always lower materials and tools by using a rope.
- Never more than one person on a ladder at one time.
- When in position the ladder should protrude 3 feet or three rungs above the intended landing site.
- Never use a wooden ladder that has been painted.
- If reasonable and practical, the employee should wear a personal fall arrest system when working at heights greater than 3 metres.
- If the use of a personal fall arrest system is not reasonable and practical, the employee may work at heights greater than 3 metres if:
- The work is light duty and for a short duration;

- The Workers centre of balance is at the centre of the ladder at all times even when extending arms; and
- The worker has one hand available to hold onto the ladder

Potential Hazards:

- Slips/falls due to reaching too far, slippery steps, set up on slippery or uneven surface
- Pinches
- Electrocution due to ladder touching overhead power lines or electrical sources
- Faulty equipment causing collapse or tipping
- Skids work down or missing causing ladder to slide or tip
- Equipment damage due to improper storage

SAFE LIFTING TECHNIQUES

Alberta OHS Regulations: Part 14 - Lifting and Handling Loads; Part 18 - Personal Protective Equipment

Adopted:

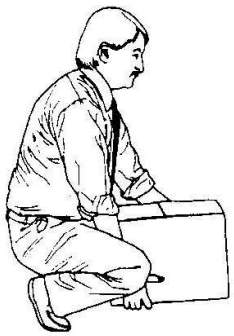
Revised and Adopted:

Manpower: 1 person
Safety Equipment: Safety footwear
Tools:

Procedures:

- Whenever possible warm up or stretch before lifting for the first time or after a break. Make sure your muscles are limber.
- Clear debris in your path before lifting or travelling.
- Estimate the best technique before you attempt to lift. Get help if you need it.
- If team lifting co-ordinate with each other and agree who is leading before you lift.
- Keep the load close to yourself through all stages of the lift.
- If the load is unevenly balanced keep the heaviest part closest to you. TV's are a good example. Keep the screen side closest to you.
- Lift with a good base of support.
- Feet should be shoulder width apart, one foot slightly ahead of the other. The heel of the forward foot should be parallel with the instep of the other foot.
- Lift smoothly in one motion, do not jerk the load.
- Avoid twisting at all costs. Reposition yourself and/or feet before moving the load instead.
- Keep your upper body upright.
- Keep your chin level and look straight ahead. Tilting the chin upward will increase the stresses on your spine.
- Use leg strength to do most of the work.
- Tighten abdominal muscles during the lift by exhaling to counteract the pressure placed on your lower back.
- Keep the load at waist height if possible both when picking up and placing.
- Breathe naturally.

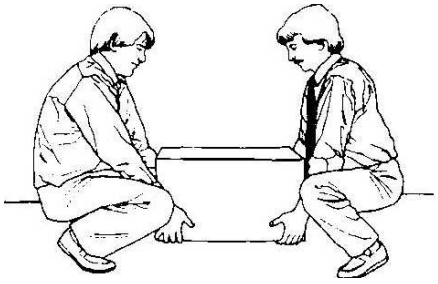
Two-Handed Lift:



- While facing the load, squat close to it and test its weight and weight distribution.

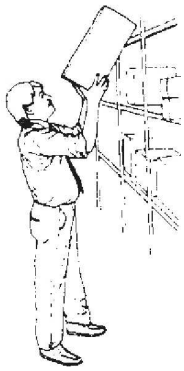
- Firmly grip the object.
- Lift the object to waist level.
- Rise to a standing position while holding the object near waist level.

Two Person Two-Handed Lift:



- Plan the lift. One person should co-ordinate.
- If possible both persons should be the same height to equalize the travel distance and weight lifted by each.
- Communicate during the entire process to avoid sudden unexpected movements and load shifting.
- Simultaneously lift the object to waist height.
- Simultaneously rise to a standing position, using your legs for the primary force.

Overhead Lifting or Placement:



- Whenever possible use a step or platform to reach a comfortable position to lift or place objects. Do not over-stretch your arms to accomplish the job.

Lifting:

- Stand with one foot in front of the other for improved stability.
- Tilt the load slightly to test its' weight.
- Slide the load to the edge and raise it with the arms while keeping the natural curve of the back.
- Lower the load slowly.
- Rest the load on a shelf or another structure that is halfway down from the start point. Then readjust your position and complete the task.

Placing:

- Ensure sufficient space is available in the location you wish to place the object.

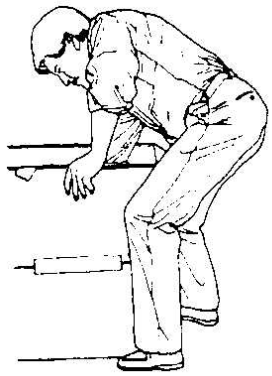
- Make sure the object will be secure once placed and not pose a risk of falling back onto you or someone else.
- Make sure the object is not going to become damage or cause damage to other merchandise due to it's position or possible movement.
- Reach a comfortable position in front of the location you wish to place the object.
- Lift with the arms and place the back edge of the object in place at the front of the storage location.
- Slide the object into its space.
- Double check its stability before proceeding to the next task.

One Hand, One Person Lifts:

- Support your upper body weight on a stable surface or on your thigh or knee as shown.
- Bend forward to pick up the object with your free hand, bending the weight bearing leg slightly and kicking back the other leg off the floor.
- Firmly grasp the object.
- Lift the object keeping it close to waist level.
- Rise to a straight and natural position while holding the object near waist level.

Lifting From Containers:

Option 1



- Face the container opening.

- Bend forward, placing the farthest hand on the side of the container nearest the body.
- Lift the object with the closer, free hand, supporting the weight of the upper body with the other hand on the container.

Option 2

- Stand close to, but sideways to the container.
- Squat, placing the farthest hand on the container edge, nearest the body.
- Lift the object with the closer, free hand, supporting the weight of the upper body with the other hand on the container.

Potential Hazards:

- Muscle strain
- Back injuries

SEWING MACHINES

SEWING MACHINES

Alberta OHS Regulations: Part 25 - Tools, Equipment and Machinery

Adopted:

Revised and Adopted:

Manpower: 1 person
Safety Equipment: n/a
Tools: n/a

Procedures:

- Read the owner's manual and familiarize yourself with its various parts and capabilities.
- Raise needle to its highest position by turning hand wheel at the right of the machine toward you.
- Make sure that the needle you are using is the correct size for the fabric you are sewing.
- Raise presser foot.
- Thread sewing machine and pull top and bottom threads to the right and back of the machine.
- Place layers of fabric to be sewn to the left and underneath the raised presser foot.
- Position fabric so that the distance between the fabric edges and the needle is equal to the required seam allowance.
- Lower presser foot onto positioned fabric and move machine hand wheel toward you until needle pierces the fabric.
- Begin stitching by pressing on machine foot pedal and gently guiding fabric as it is pulled to the back of the machine.
- Try not to exert any pressure on fabric other than what is needed to evenly guide fabric in as accurate a stitching line as possible.
- End stitching by raising needle to its highest position.
- Raise presser foot and pull stitched fabric out and to the left.
- Cut bottom and top threads in order to release fabric.
- Keep a variety of needle sizes among your sewing supplies. This will allow you to quickly adjust the size if necessary.
- Test stitching on sample fabric in order to determine whether stitches are too loose or too tight and to observe stitch length. Adjust stitch length and tension dials as needed.
- Spend some time testing different combinations of stitch length and tension levels on a variety of fabrics. This will help you get a feel for what stitch settings will and won't work for some fabrics.
- Take care not to let your right hand get under the needle clamp while guiding fabric. The needle clamp goes rapidly up and down along with the needle and can hit your hand if you're not careful.

Potential Hazards:

- Cuts
- Pinch points

SILK SCREENING

SILK SCREENING	
Alberta OHS Regulations:	Part 4 - Chemical Hazards, Biological Hazards, and Harmful Substances; Part 10 - Fire and Explosion Hazards; Part 18 - Personal Protective Equipment; Part 29 - Workplace Hazardous Information System (WHMIS); Schedule 1 - Chemical Substances
Adopted: **Revised and Adopted:**	
Manpower: **Safety Equipment:** **Tools:**	1 person Protective eyewear, protective gloves, apron, respirator (dependent on material), adequate ventilation

Procedures:

- Traditionally, silk screen printing has been performed using organic solvent-based materials. Water-based inks containing less hazardous ingredients provide a safer and increasingly popular alternative.
- The hazards associated with screen preparation depend on the materials used. Consult the MSDS prior to use.
- For resist and block out stencils we recommend water-soluble glues, liquid wax and liquid frisket which contain no toxic solvents nor require them for clean-up. They may cause slight eye irritation if they splash in the eyes.
- Lacquers, polyurethane varnishes, tusche, shellac and caustic resist enamels are often used but contain large amounts of toxic solvents. Turpentine, used to thin tusche, may cause skin or respiratory allergies, and kidney damage.
- For film stencils, water-soluble emulsion films are recommended. The mixture of water and isopropyl alcohol adheres the stencil to the screen, and while flammable, is only slightly toxic. The adhering fluid for lacquer-type emulsions contains acetates, ketones and alcohols, which are irritating to the skin and are more toxic by inhalation.
- The safest type of photo stencils are diazo photoemulsions. They are eye irritants by direct contact, but are otherwise not very toxic.
- Ammonium dichromate, often used to sensitize photoemulsions, can cause skin ulcers and allergies with direct contact and inhalation of the powder can cause severe respiratory irritation, ulceration of the nasal septum, and respiratory allergies. Ammonium dichromate is also combustible. Silver nitrate, another sensitizer, is corrosive to the skin and eyes.
- Carbon arcs, sometimes used to expose photoemulsions, are highly hazardous, giving off metal fumes, ozone and nitrogen dioxide, which are strong lung irritants, and ultraviolet radiation which harms the eye; carbon arcs are not recommended.
- Direct exposure to the solvent vapors from the ink is a serious problem during printing due to the close proximity of the printer. Inhalation of the hazardous solvents during drying, however, is the major source of exposure since large volumes of solvent evaporate into the air in a short period of time.
- Curing fabric inks by heating may release fumes which are irritating to the respiratory system.
- Clean-up is probably the most hazardous step in silk screen printing because of the widespread use of highly toxic screen washes and the practice of tossing solvent-soaked rags in open wastepaper cans. This causes the evaporation of large amounts of highly toxic vapors.
- To reduce exposure to toxic vapors during clean-up, substitute mineral spirits (or mineral spirits with 15% added xylene for difficult jobs) for lacquer thinner, toluene, xylene and other highly toxic solvents. These solvents are also fire hazards.
- Proper safety is essential when working with all these toxic substances. The elderly, people with chronic diseases, pregnant women, and children are at especially high risk and should avoid screen printing if possible. Consult your physician if you suffer from heart trouble or a breathing ailment which can be

aggravated by toxic vapors.

- Solvents should be stored in approved, capped flammable storage cabinets. Only a small amount of solvents should be out for use and solvents should be purchased in the smallest quantities practical in order to minimize fire hazards. Before starting work, all sources of ignition should be eliminated.
- One of the most important precautions in silk screen printing is proper ventilation. All processes producing solvent vapors -- including printing, drying and screen washing -- should be done with local exhaust ventilation.
- During the printing process, the best type of ventilation would be an explosion-proof slot exhaust hood located at the rear of each printing station. The drying rack should be enclosed on the back, sides, and top, and the solvent vapors exhausted from the rear.
- Clean-up can be done at the printing table utilizing the local exhaust slot hood. Bleach cleaning of the photoemulsions screens also needs local exhaust ventilation because of the chlorine gas produced.
- Air conditioners do not adequately ventilate screening processes because they re-circulate air rather than exhausting it. Likewise, open windows or doors are not adequate ventilation for solvent-based silk screen printing.
- A National Institute of Occupational Safety and Health (NIOSH)-approved respirator with organic vapor cartridges can help minimize exposure to screen printing solvent vapors if ventilation is not adequate.
- To prevent eye irritation caused by splashes, wear lightweight plastic splash goggles while pouring or working with paint removers.
- If ink or other hazardous material is splashed in the eyes, flood the eyes with water for at least 15 minutes and call a physician. A source of clean water (e.g. eyewash fountain) should be accessible for this purpose.
- Gloves should be worn during all screen printing processes to protect the skin from hazardous pigments, solvents and other chemicals. Ordinary rubber dishwashing gloves or surgical gloves will not provide adequate protection. All gloves do not provide protection against the same materials.
- When using inks, gloves that protect against aromatic solvents and petroleum distillates should be used. Lacquer use requires wearing gloves that protect against ketones and alcohols besides aromatics and petroleum distillates. You should find out the type of solvents in the products you use by consulting the specific MSDS.
- To further decrease the risk of skin contact wear long pants, a long sleeved shirt and an apron.
- Solvent-soaked rags should be stored in approved oily waste cans which are emptied daily.
- Disposal should be done in accordance with local city and fire regulations, and an approved waste-disposal firm may be necessary for large quantities of solvent waste.
- Never pour solvents down the drain. Small quantities of solvents can be evaporated under a fume hood or outdoors.
- Get Material Safety Data Sheets (MSDSs) on all products in order to ascertain the ink composition, since the ingredients are not always listed on the label.
- There should be no eating, drinking, smoking or make-up application in the studio or while working.
- To avoid ingestion and absorption of these substances through skin contact, wearing gloves is recommended.
- For water-based printing, a window exhaust fan should provide adequate ventilation.
- If lacquer stencils are used, then one explosion-proof slot exhaust hood would be needed.

Potential Hazards:

- Fumes
- Skin exposure
- Inhalation
- Fire

STOVE

STOVE	
Alberta OHS Regulations:	Part 18 - Personal Protective Equipment
Adopted: **Revised and Adopted:**	
Manpower: **Safety Equipment:** **Tools:**	1 person Gloves

Procedures:

- Consult MSDS and WHMIS for all products you will be using on stove.
- Use the lowest temperature possible for the job.
- Never apply liquid grounds or use solvents near the hotplate.
- Be sure to turn stove off immediately when job is done.
- Keep flammables stored a safe distance away from heat sources.
- Keep your workspace clean and uncluttered, both during work and after.

Potential Hazards:

- Burns
- Fire
- Explosion
- Electrical shock

VEHICLE MOVEMENT

VEHICLE MOVEMENT	
Alberta OHS Regulations:	Part 12 - General Safety Precautions (Section 194)
Adopted: **Revised and Adopted:**	
Manpower: **Safety Equipment:** **Tools:**	1 person Valid driver's license

Procedures:

- Perform a walk around inspection prior to moving vehicle.
- Only allow mechanics teacher or aid to move vehicles inside the shop and compound area.
- Have a spotter for moving any vehicle when one or more students are present. The spotter role is to ensure that no one moves into the path of the moving vehicle.
- Sound car horn before starting movement.
- Check and test braking system prior to moving vehicles.
- Check tire wheel torque (if applicable).
- Secure vehicle with wheel chocks.
- Whenever possible avoid vehicle movement when students are present.
- Do not allow untrained (i.e., unlicensed) persons to steer and brake vehicles being pushed in the shop or compound area.
- Do not allow persons to be in close proximity to solid object when pushing vehicle.
- Do not test drive unlicensed/unregistered vehicles. Check owner documentation prior to test drive.
- Do not allow students to move or test drive vehicles.

Potential Hazards:

- Collision

WORK STATIONS

WORK STATIONS
Alberta OHS Regulations:
Adopted: **Revised and Adopted:**
Manpower: 1 person **Safety Equipment:** **Tools:**

Procedures:

- Ideal Work Positions - Comfort Zones

Vary Your Posture

Depending on your tasks, you may find a range of sitting and standing postures that are comfortable. Within your comfort zone, change postures often throughout the day.

Reclined *Upright* *Standing*

- Adjust chair height to have feet flat on floor, minimal pressure on the bottom of the thighs. If you need a footrest or other supports ask your TL.

RIGHT

Rest your feet firmly on the floor or a footrest.

WRONG!

Do not dangle your feet and compress your thighs.

Back Support:

RIGHT

Distribute your weight evenly and use the entire seat and backrest to support your body.

WRONG!

Do not slouch forward.

Arm Support:

RIGHT

Turn your chair to the side to help determine if your elbow height is near the height of your keyboard's home row.

RIGHT

Forearm supports are properly adjusted when your shoulders are relaxed, your forearms are supported (yet free to move while typing), and your wrists are in a comfortable, neutral position.

Forearms, Wrists:

RIGHT

Maintain a comfortable, neutral wrist position.

WRONG!

Do not rest your palms or bend your wrists markedly down while typing.

RIGHT

Maintain a comfortable, neutral wrist position.

WRONG!

Do not bend your wrists markedly inward.

- Monitor: The top edge of a text viewing monitor should be about even with your eye level. The monitor should be at arm's length from you.

Workspace Organization:

Glare Control:

Look away from your screen periodically to refocus your eyes. A good practice is the 20-20-20 guideline which is to look away from your computer screen every 20 minutes and look at something 20 feet away for 20 seconds

Glare is caused by the reflection of light off of surfaces and is a primary cause of eyestrain. You can get rid of glare by controlling the light source, adapting the surface reflecting it, or by filtering it before it reaches your eyes. Significant causes of eyestrain are staring at the same distance for a long period of time, such as at a computer monitor or other electronic device or because of driving long distances without a break. These environments can be adapted to be better for your eyes.

Adjust the Light Source

Direct light causes the most glare. Examine whether lighting that's overhead or behind is shining on your computer monitor and take steps to reduce it. Use a desk lamp for directed, diffused task lighting when needed instead of bright overhead light.

Use curtains or translucent plastic blinds on windows. Closing these will diffuse the incoming sunlight light instead of reflecting it, like metal or wood blinds do. You don't want to strain to see in dim light, though, either. Light that's too dim can lead to eyestrain as well.

Adjust the Surface

Shininess is measured by reflection and glare. That means the duller the surface, the less glare there will be. Use work surfaces that have matte finishes. Some items, like computer screens, are inherently smooth and therefore glossy. Use a glare filter over them.

Place your work surface at a right angle to the direct light source, such as a window. Items 90 degrees to the light have the least amount of reflection and glare. In addition, don't position your monitor in front of a bright white wall.

Keep your monitor clean of dust, as having a dirty monitor will lower its contrast, making it harder to read. Dark text on a light background is the easiest to read, so opt for that environment rather than funky color schemes for daily work. And don't feel like you're a codger if you blow up text on your page to make it easier to read. Your eyes will thank you.

Adjust your brightness and contrast on your computer monitor, following Wired's advice when looking at a white background on your display: "If it looks like a light source in the room, it's too bright. If it seems dull and gray, it's

probably too dark."

Shield Your Eyes

If you cannot eliminate the glare, then stop it before it gets to your eyes. Polarized lenses on sunglasses eliminate a lot of glare. Prescription lenses can be polarized as well. This is the best option when driving, because you cannot control the light source or the surface.

Anti-glare coatings for prescription lenses are worth the money for people who stare at computer screens all day. Even if you do not need corrective lenses but suffer from eyestrain, you can get all the benefits of anti-glare lenses without them being ground to a prescription. Consult your eye doctor for more information on this.

Phones:

WRONG!

Do not cradle your phone between your ear and shoulder.

Stand-up Work Stations:

- The same principles apply for body posture as for seated work stations. If you have a chair adjust it using the previous guidelines including the footrest supplied with the chair

WORKING IN SUMMER

Alberta OHS Regulations: Part 18 - Personal Protective Equipment

Adopted:

Revised and Adopted:

Manpower: 1 person
Safety Equipment: Appropriate clothing (hat, sunscreen, sunglasses, etc.)
Tools:

Procedures:

- Carry and drink lots of water throughout the day (i.e. 2-4 litres/day), at least twice an hour. You may be dehydrated even though you are not thirsty.
- Try not to drink liquids that are diuretics (i.e. coffee, tea, pop).
- Eat healthily; lots of food with good nutrients and minerals (i.e. fruits, vegetables).
- Carry and use sunscreen with a minimum of SPF 15.
- If possible, sit in the shade when taking a break.
- Layer your clothing. Wear clothes with breathable fabric (i.e. polypropylene).
- Pay attention to your co-workers. Signs of heat stroke are: confusion, irrational behaviour, nausea, shortness of breath or a rapid pulse.
- Heat exhaustion occurs before someone has a heat stroke. Signs may include: nausea, cramps, weakness, bewilderment or headache.

Potential Hazards:

- Dehydration
- Sunburn
- Heat stroke

WORKING IN WINTER

Alberta OHS Regulations: Part 18 - Personal Protective Equipment

Adopted:

Revised and Adopted:

Manpower: 1 person
Safety Equipment: Appropriate clothing (layers, gloves/mitts, boots, socks, toque, etc.)
Tools:

Procedures:

- Cold weather does present additional hazards during winter operations, but with awareness and good planning, injuries can be avoided.
- Wear appropriate cold weather clothing and personal protective equipment.
- The best method of staying warm in cold weather is to insulate the most exposed parts of the body.
- Do not engage controls or equipment when visibility is obscured by steam or snow.
- The accumulations of snow and ice on walkways, work areas and vehicle steps can become a slipping hazard, so more care needs to be taken.
- Exercise care when handling diesel fuel and gasoline during cold weather operations; the cold burn resulting from saturated clothing due to spillage can be severe.
- Commonly exposed parts of the body are the face, feet, wrists and hands. Always ensure that socks are of generous length and gloves come well up the forearm.
- Remember to always dress for the weather, and change to clean, dry clothing regularly.
- Winter operations require a liner in your hard hat.
- Wet gloves freeze the hands quickly so keep a dry pair handy.
- Keep sunglasses available for working in bright sunlight with snow cover.
- Superficial frostbite usually affects the ears, face fingers and toes. It is painless in the early stages and may not be noticed by the affected person. As freezing progresses the skin turns white and is numb to the touch. If you are working in cold weather and you notice your fellow workers with white spots, immediately tell them. Use your warm hands or get them inside to warm up for a few minutes. If more severe, take to medical help immediately.

Potential Hazards:

- Frostbite
- Hypothermia
- Slips, trips and falls