



# SAFETY HEALTH ENVIRONMENT

Handbook for Construction/Build Site Volunteers





### Safety, Health and Environment Policy

The Management and Board of Directors of Habitat for Humanity Thunder Bay is vitally interested in the safety and health of all employees, volunteers and sub contractors involved in Habitat for Humanity Thunder Bay (HfHTB). It is HfHTB's philosophy that the wellbeing of HfH in Thunder Bay depends on the safety and health of our workforce and the protection of our environment.

To enable HfHTB to keep our quality and production of affordable housing at the highest level, we must ensure that the safety and health of our workforce is maintained at all times.

To achieve this goal, HfHTB will endeavor to develop, implement and evaluate the Safety, Health and Environment (SHE) Program through the application of the HfHTB SHE Management System as developed by HfH Canada.


HfHTB will ensure the safest possible work environment by ensuring that all workplace SHE hazards are identified and controlled. That employees and volunteers receive ongoing training in safety and health, by maintaining communications between management and the workforce and by leading by example through action.

The responsibility to ensure a safe and healthy workplace is everyone's responsibility from the Chair of the Board of Directors to the newest volunteer.

The assistance and support of everyone involved in HfHTB is needed and expected in order to protect the safety and health of our workforce, our stakeholders and our environment.

  
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Chair of the Board of Directors

  
\_\_\_\_\_

Date

  
\_\_\_\_\_

Chief Executive Officer

  
\_\_\_\_\_

Date



## Course Outline

1. SHE Policy for Habitat for Humanity
2. Worker Responsibilities
3. General Safe Work Practices
4. Personal Protective Equipment (PPE)
5. Emergency Response
6. Equipment and Materials Hazards
7. Job Specific Hazards
8. Restricted Activities
9. Review
10. SHE Quiz



## 1. SAFETY, HEALTH AND ENVIRONMENT (SHE) POLICY OF HABITAT FOR HUMANITY

Your Safety is Paramount

Your Health is vital

Your Environment is always safe

**Our Safety, Health & Environment (SHE) policy is:**

- ✘ Posted at every build site
- ✘ Included in your Construction/Build Site SHE Handbook

Please take the time to read it. Our top priority when working at a build site is to prevent all accidents and SHE incidents.



## 2. WORKER RESPONSIBILITIES

**As a Habitat volunteer, it is your responsibility to:**

1. Participate in all required SHE training: SHE Orientation Course & daily safety-training sessions.
2. Wear appropriate personal protective equipment and work clothes, as instructed.
3. Report to work in a fit condition: no alcohol or drugs.
4. Report all incidents and hazards to the Site Supervisor immediately.
5. Report unsafe acts or conditions to your supervisor.
6. Follow first aid & medical treatment procedures and emergency response plans.

### 3. GENERAL SAFE WORK PRACTICES

- ✘ Practice good housekeeping at all times
- ✘ Keep work areas clean and clear
- ✘ Work at a safe speed, never rush on the job
- ✘ Learn the right way to do your job
- ✘ Make sure all tool guards and other protective devices are in place and adjusted
- ✘ Never work while you are ill or fatigued
- ✘ Never handle or tamper with any electrical equipment or materials
- ✘ Horseplay and playing around are not permitted
- ✘ No headphones permitted while working
- ✘ No cell phones to be used on site

#### 3.1 UNSAFE WORKING CONDITIONS

Some of the most common unsafe working conditions are:

- ✘ Inadequate guarding and protection from fall hazards, electricity, or moving machinery
- ✘ Poor housekeeping causing slips, trips & falls
- ✘ Defective tools, equipment and materials
- ✘ Improper use, handling, and storage of chemicals
- ✘ Inadequate warning system or emergency response plans
- ✘ Inadequate illumination or ventilation
- ✘ Worker's attention not on the task at hand

Report all Unsafe Conditions to your site supervisor **immediately!**

#### 3.2 REPORTING & CORRECTING UNSAFE CONDITIONS

If you see an unsafe condition or activity:

- ✘ Stop the unsafe activity **immediately** if safe to do so
- ✘ Report it to the Site Supervisor
- ✘ Talk with the persons involved and agree on how to do the job safely



## 4. PERSONAL PROTECTIVE EQUIPMENT (PPE)

**Hard hats** - Must be worn at all times

**Safety boots** - Must be worn at all time

**Safety glasses** - Must be worn when eye hazards are present.

**Other PPE** - For specific tasks: ear plugs, gloves, dust masks, and fall protection.

### 4.1 HARD HATS

- ✘ Must be worn at all times on the job site (legally required)
- ✘ Must be worn properly, with the cap facing front, and should not be decorated with stickers (as they may hide cracks or damage)

### 4.2 SAFETY SHOES

- ✘ Must be worn at all times on the job site.
- ✘ Must be CSA-certified, labeled with the green triangle patch
- ✘ Should be checked regularly for damage



#### What if I forget to wear my safety shoes to the build site?

- ✘ Ask the Site Supervisor if there are any that you can borrow
- ✘ If not, you will need to get them
- ✘ You will not be allowed on the build site without safety shoes

### 4.3 LONG PANTS

- ✘ Must be worn at all times
- ✘ Pants should be fitted and worn on the hips not dropped down
- ✘ Pants should be without embellishments (decoration, or trimming) that can get caught on equipment





## 4.4 SAFETY GLASSES

- ✘ Must be worn whenever eye hazards are present
- ✘ Should have side shields
- ✘ Should be CSA approved industrial quality

### Eye hazards:

- ✘ Wood chips
- ✘ Steel particles when hammering
- ✘ Dust
- ✘ Dripping adhesives
- ✘ Material falling during overhead work
- ✘ Protruding materials in your path



## 4.5 OTHER PERSONAL PROTECTIVE EQUIPMENT

**Ear plugs or ear muffs** - When using power saws, drills or other loud equipment.

**Gloves** - When loading or unloading materials, or working with cement or other corrosive materials.

**Dust masks** - When sawdust, concrete dust, drywall dust, fiberglass insulation or paint vapours are present.

**Personal fall protection** - When working at a height of more than 10 feet without safety rails. This PPE requires special training and a written record of the training.

### You must use the necessary protective equipment.

- ✘ Hard hats and safety glasses are provided
- ✘ Bring your own safety boots
- ✘ Ear plugs and gloves are provided
- ✘ If you feel safer wearing PPE, then do so

## 5. EMERGENCY RESPONSE

As part of your on site safety orientation at any HFH build site you will be informed of the site EMERGENCY RESPONSE PLAN. This includes:

- ✘ Emergency evacuations
- ✘ First aid kits and attendants
- ✘ Fire safety
- ✘ Chemical spill response procedures

### 5.1 EMERGENCY EVACUATIONS

- ✘ Know how to evacuate your worksite in case of an emergency
- ✘ Be aware of all possible obstructions to access/egress routes and maintain clear paths
- ✘ Plan your escape path before starting work
- ✘ In the case of an emergency go to the designated safe gathering area

### 5.2 MEDICAL EMERGENCIES AND FIRST AID

- ✘ Ask where the first aid station is when arriving at any job site
- ✘ The first aid certificate of the qualified person is posted on the bulletin board at the first aid station
- ✘ Get first aid for any injury, even the small ones

**Eyewash Stations** - Learn to use it **BEFORE** working with chemicals like adhesives, foam insulation, etc...

**Foreign Objects in eyes** - Get medical help immediately

**Heatstroke Is A Medical Emergency!**

**Symptoms:**

- ✘ High temp (40 °C)
- ✘ Hot dry skin
- ✘ Confusion
- ✘ Convulsions
- ✘ Unconsciousness
- ✘ Irrational Behaviour

**If you or anyone else shows any of these symptoms call the local emergency number or get them to a hospital right away!**

**Prevention:**

- ✘ Wear loose, thin, light coloured clothing
- ✘ Drink water (8 ounces) every half hour
- ✘ Avoid coffee, tea, or other caffeine energy drinks
- ✘ Avoid eating hot, heavy meals

## Cold Stress

### Symptoms:

- ✘ Blue lips and fingers
- ✘ Disorientation
- ✘ Slow breathing and
- ✘ Confusion heart rate
- ✘ Poor coordination

Contact the Site Supervisor and/or first aider when experiencing any of these symptoms.

### Prevention:

- ✘ Wear several layers of clothing rather than one thick one
- ✘ Wear synthetic fabrics next to the skin to wick away sweat
- ✘ Wear a waterproof outer layer
- ✘ Change out of wet clothes immediately
- ✘ If you get hot, open your jacket but keep your hat and gloves on

## 5.4 FIRE SAFETY

### Prevention:

- ✘ Keep combustible material away from ignition sources
- ✘ No open fires allowed
- ✘ Store flammable liquids in approved containers

### In Case of Fire:

- ✘ Contact Site Supervisor & call 911
- ✘ Vacate the area of the fire
- ✘ Meet the Fire Department at the site entrance

## 5.5 CHEMICAL SPILL RESPONSE

- ✘ All chemical spills must be considered hazardous and require area evacuation
- ✘ Only trained and qualified persons attempt a rescue or a clean-up response
- ✘ Do not come in contact with the spilled material
- ✘ Always report any spill to the Site Supervisor
- ✘ Never clean up a spill alone

## 6. EQUIPMENT & MATERIAL HAZARDS

- ✘ Ladders
- ✘ Scaffolds
- ✘ Working Safely at Heights
- ✘ Material Handling
- ✘ Hand & Power Tools
- ✘ Electricity
- ✘ Chemicals
- ✘ Vehicle & Pedestrian Safety

### 6.1 LADDERS

#### Hazards:

- ✘ Broken or damaged parts
- ✘ Electrocutation
- ✘ Falls

#### Step Ladders:

- ✘ Never climb past the second rung from the top
- ✘ Make sure spreaders are locked in place
- ✘ Barricade nearby doorways

#### Straight Ladders:

- ✘ Must rest against a firm surface
- ✘ Use the 1:4 rule = 1 foot out for every 4 feet up
- ✘ Tie off the ladder
- ✘ Must extend 3' beyond the top landing
- ✘ Safety feet on ladder must be intact

#### Safe Practices:

- ✘ Check ladder for defects
- ✘ If damaged, don't use it
- ✘ Watch for overhead power lines
- ✘ When using a power tool, never hold onto a grounded object
- ✘ Set ladder on a firm level surface
- ✘ Use ladders only for short-duration work
- ✘ Maintain 3-point contact  
(2 hands & 1 foot or 1 hand & 2 feet)
- ✘ Don't reach over the side
- ✘ Tie yourself off to a fixed support when above 10ft
- ✘ Boots should not be wet or slippery
- ✘ Clear the area around the ladder



## 6.2 SCAFFOLDING

### Hazards:

- ✘ Electrical contact
- ✘ Falling off of scaffolding
- ✘ Falling while climbing

### Safe Practices:

- ✘ Scaffolding must be placed on a firm base
- ✘ Never change or remove scaffold members
- ✘ Do not alter scaffolding members or use make-shift securement
- ✘ Do not ride on rolling scaffold. Secure the locks on rollers
- ✘ Get Site Supervisor approval before erecting side rails
- ✘ Know safe working loads of scaffolds.

## 6.3 WORKING SAFELY AT HEIGHTS

### Falls cause:

- ✘ Half of the deaths in construction each year
- ✘ The most severe non-fatal injuries on construction sites

### Fall Protection

- ✘ Install properly constructed guardrails
- ✘ Cover floor openings. Secure the covers and mark them as covers
- ✘ Use properly built scaffolds and work platforms

### Personal Fall Protection Systems

- ✘ Full body harness
- ✘ Lanyard with shock absorber
- ✘ Fixed support or lifeline

### MUST Be Used When Working:

- ✘ 10 feet or more above ground or floor level
- ✘ Above operating machinery
- ✘ Above hazardous substances or objects
- ✘ While on an elevated work platform other than an acceptable scaffold with guardrails

### When working with a Personal Travel Restraint or Fall Arrest system:

- ✘ You must be trained in the particular system being used on site it
- ✘ You must know how to inspect the equipment
- ✘ There must be a written record of your training



## 6.4 SAFE MATERIAL HANDLING

### Plan and prepare for your material handling and moving work:

- ✘ Wear gloves and safety glasses
- ✘ Read MSDS sheets for hazardous materials
- ✘ Be sure loads are balanced and secured
- ✘ If something heavy starts to fall, LET IT FALL! Don't try to catch it
- ✘ Get help when lifting heavy objects
- ✘ Never work underneath a suspended load
- ✘ Never work directly above other workers lifting:
  - Bend your knees - not your waist.
  - Avoid twisting
  - Stretch out your muscles beforehand

### IF IT'S IN THE AIR - IT'S DANGEROUS

## 6.5 HAND & POWER TOOLS

### Hazards:

- ✘ Electric Shock
- ✘ Cuts, punctures and other wounds
- ✘ Severed or crushed fingers
- ✘ Shards or debris in the eyes

### Safe Practices:

- ✘ Disconnect power when moving or repairing tools
- ✘ Use tools only for their intended purpose
- ✘ Never bypass broken switches on tools by plugging & unplugging the cord
- ✘ Wear eye protection
- ✘ Ask for assistance when you need it
- ✘ Do not operate a power tool if you have not been trained to use it
- ✘ Do not use the electric cord to lift or lower the tool

### Defective Tools are Dangerous!

- ✘ Double check tools before you use them
- ✘ Report defective tools!
- ✘ Never use a defective tool

### Common tool defects to watch for:

- ✘ Loose, split or cracked handles on hammers
- ✘ Mushroomed heads on chisels, drills or steel wedges
- ✘ Files without handles
- ✘ Frayed electrical cords
- ✘ Broken, displaced, or inoperative guards



## 6.6 ELECTRICITY

- ✘ Use only GFCI outlets
- ✘ Use only properly grounded or double insulated tools
- ✘ Check double insulated tools for cracks.
- ✘ Disconnect from power source before moving or repairing tools or lights
- ✘ Check cords for damage
- ✘ Don't fasten cords with staples or wire
- ✘ Check for electrical wires before drilling, nailing, cutting or sawing
- ✘ Locate all utilities before digging
- ✘ Be aware of overhead power lines



## 6.7 VEHICLE & PEDESTRIAN SAFETY

**Important things to remember when working around vehicles:**

- ✘ Familiarize yourself with the various types of equipment and their travel routes
- ✘ Wear high-visibility clothing
- ✘ Never stand under a suspended load
- ✘ Avoid the swinging area of backhoes, cranes, and boom trucks
- ✘ Maintain eye contact with the vehicle operator, be aware of blind spots



## 6.8 CHEMICALS

WHMIS (Worker Hazardous Material Information System) is a Canada-wide system to protect health and safety.

The WHMIS system consists of:

- ✘ WHMIS Labels
- ✘ Material Safety Data Sheets (MSDS)
- ✘ Worker Education

### WHMIS LABELS

- ✘ Are attached to any hazardous
- ✘ Give the name of the material
- ✘ Warn of dangers
- ✘ Refer to the MSDS
- ✘ Give precautionary and first aid measures
- ✘ Show hazard symbols



**Class A** - Compressed Gas



**Class B** - Flammable and Combustible Material



**Class C** - Oxidizing Material



**Class D** - Poisonous and Infe Material Division 1 Materials Causing Immediate and Serik Toxic Effects



**Class D** - Poisonous and Infectious Material Division 2 Materials Causing Other Toxic Effects



**Class D** - Poisonous and Infectious Material Division 3 Biohazardous Infectious Material



**Class E** - Corrosive Material



**Class F** - Dangerously Reactive Material

### MATERIAL DATA SAFETY SHEETS (MSDS)

- ✘ Are kept on site for all hazardous materials
- ✘ Contain detailed information for handling emergencies or clean-ups, and safe use of products
- ✘ The supplier or manufacturer is required to supply a MSDS for each hazardous material they sell

### WORKER EDUCATION

- ✘ Done on site by Site Supervisor or SHE Coordinator
- ✘ Covers the specific hazardous materials you will be working with on the build site
- ✘ Explains work practices and emergency procedures relating to any hazardous materials you will be exposed to



## 7. JOB SPECIFIC HAZARDS

- ✘ Framing Hazards
- ✘ Roofing Hazards
- ✘ Siding Hazards
- ✘ Insulation Hazards
- ✘ Drywall Hazards
- ✘ Landscaping Hazards

### 7.1 FRAMING AND ROUGH-IN CARPENTRY

#### Hazards:

- ✘ Falls
- ✘ Noise
- ✘ Trips
- ✘ Overexertion
- ✘ Struck by objects
- ✘ Wood dust

#### Safe Practices:

- ✘ Remove nails from discarded lumber right away
- ✘ Use caution when walking on floor joists
- ✘ Clean up as you go. Pick up after yourself
- ✘ Do not work beneath areas being roofed

#### When standing up walls:

- ✘ Be sure there are enough people to safely lift and hold up the wall
- ✘ Have bracing ready so it can be fastened as soon as wall is up
- ✘ Make sure the wall is fully supported until the bracing is up

#### When putting up trusses:

- ✘ Tie in all interior partition walls first
- ✘ Never stand on the top plate of walls
- ✘ Work only from conventional scaffolding
- ✘ Make sure there are enough workers to spread trusses



## 7.2 ROOFING

### Hazards:

- ✘ Falls
- ✘ Heat exhaustion/stroke
- ✘ Sun Exposure - UV radiation
- ✘ Overexertion
- ✘ Material falling on workers
- ✘ Cuts and abrasions

### Safe Practices:

- ✘ You must ensure 100% fall protection!
- ✘ Either scaffolding and/or railings, or use a Personal Fall Protection System with full body harness
- ✘ Install a temporary 2x6 about 6" from the bottom of the roof
- ✘ Use caution climbing onto or off of the roof.
- ✘ Remove scrap debris and sawdust regularly
- ✘ Don't let sheathing lie loose on the roof
- ✘ Do not carry heavy material or tools up ladders
- ✘ Secure saws and other tools to the roof so they don't fall
- ✘ Do not step backwards on a roof
- ✘ Wear good gripping shoes
- ✘ Never work on a roof alone



## 7.3 SIDING

### Hazards:

- ✘ Falls
- ✘ Cuts
- ✘ Material falling on workers
- ✘ Electrical extension cords and tools

### Safe Practices:

- ✘ Make sure ladders and scaffolds used are in good condition and properly secured
- ✘ Do not use step ladders as straight ladders
- ✘ Wear gloves to protect your hands from sharp edges
- ✘ Remove nails from scrap-dispose of properly
- ✘ Do not overextend when working at heights
- ✘ Wear eye protection if chipping is possible
- ✘ Do not use power tools unless properly trained and authorized

## 7.4 INSULATION

### Hazards:

- ✘ Fibre exposure to eyes and skin
- ✘ Cuts

### Safe Practices:

- ✘ Wear safety glasses to avoid getting loose fibres in the eyes
- ✘ Wear gloves and avoid touching fibre-glass batts to your skin
- ✘ Wear a dust mask
- ✘ When cutting is required, leave the knife on the floor or in your pouch before installing insulation
- ✘ An open knife is a hazard



## 7.5 DRYWALL

### Hazards:

- ✘ Slips and falls - two thirds of slips and falls are drywall related
- ✘ Overexertion
- ✘ Cuts from drywall knives and, screws

### Safe Practices:

- ✘ Work with a partner to carry and install long sheets of drywall
- ✘ Keep feet shoulder length apart, and knees bent, when lifting and holding drywall to ceilings
- ✘ Do not carry drywall or other material with an open knife in your hand
- ✘ Do not lean board against your leg to cut it. Lay it on the floor or lean it against the wall and cut away from yourself
- ✘ Clean up your scrap material as you go to prevent trips and slips later
- ✘ When sanding and finishing, wear an appropriate dust mask

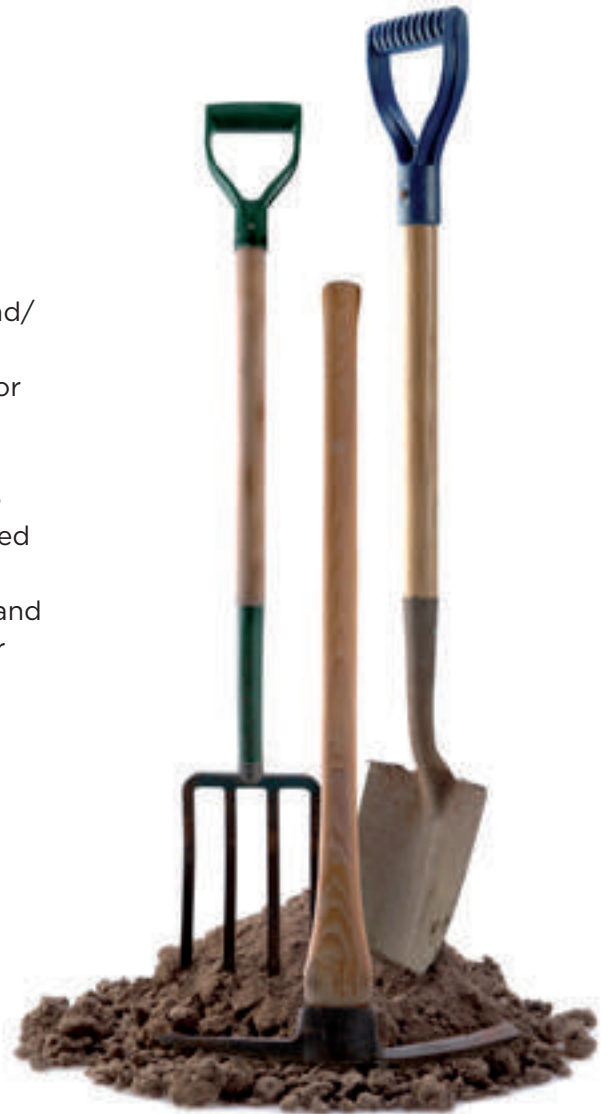
## 7.6 LANDSCAPING

### Hazards:

- ✘ Dust exposure
- ✘ Back injuries from lifting
- ✘ Electric shock from buried power lines

### Safe Practices:

- ✘ To avoid dust exposure, wet the ground and/or wearing a dust mask
- ✘ Use caution with hand tools- swings, jabs or excessive force can result in injuries
- ✘ Use proper tools for the job
- ✘ Do not over lift - place supplies as close to the work area as possible, get help if needed
- ✘ Before doing any digging, talk to the Site Supervisor to make sure the electric, gas, and phone companies have been contacted for the location of cables and pipes



## **8. RESTRICTED ACTIVITIES**

No employees or volunteers will enter the following restricted areas or perform the following activities without the express authorization of the Site Supervisor and successful completion of the site and job specific training as required by legislation:

- ✘ Entry into a confined space
- ✘ Trenching and excavation
- ✘ Concrete forming, placing, and finishing
- ✘ Crane or boom truck hoisting and lifting activities

## **9. REVIEW OF SHE**

- ✘ Report any condition that looks unsafe to your Supervisor immediately
- ✘ Wear steel toed / soled boots and a hard hat at all times
- ✘ Wear safety glasses or other eye protection when necessary
- ✘ Make sure you know how to evacuate your worksite
- ✘ The first aid certificate of the on-site first aid person is posted on the notice board at the first aid station
- ✘ Check ladders for defects, don't use if damaged
- ✘ When working at or above 10ft always use some sort of fall protection
- ✘ When lifting materials, bend your knees - not your waist
- ✘ Double check all tools before you use them, don't use if damaged
- ✘ Check cords for cracks, cuts or damaged plugs, tag out of service if damaged
- ✘ Before handling chemicals, read the WHMIS label to find out about hazards
- ✘ When working around moving equipment, be aware of the blind spots

## 10. SHE QUIZ

Complete all questions by circling the one best answer. The quiz is not difficult, and is only meant to help you review the information covered in this course. When you have completed the quiz, we'll go over it together as a group to make sure everyone has the correct answers.

NAME (Please Print): \_\_\_\_\_

DATE: \_\_\_\_\_

- 1. Our top SHE priority when working on a building site is to:**
  - a. Prevent all accidents and SHE incidents
  - b. Wear our safety equipment properly
  - c. Report all accidents promptly
  
- 2. When you identify an unsafe situation you should:**
  - a. Correct it immediately if possible
  - b. Warn others in the area
  - c. Report it to the supervisor
  - d. All of the above
  
- 3. One of the general safe work practices is:**
  - a. Learning the right way to do a job
  - b. Never touch protruding nails ... leave them alone
  - c. If a tool is defective, tell the Supervisor when you finish using it
  
- 4. One of the worker responsibilities is to**
  - a. Report unsafe acts or condition to your supervisor
  - b. Report all injuries, near-miss incidents, and other SHE incidents (no matter how slight) to the site supervisor immediately
  - c. All of the above
  
- 5. The minimum personal protective equipment required at all times on a construction site are:**
  - a. Long pants, shirt and a sun hat
  - b. Green patch safety boots
  - c. Green patch safety boots and hard hat
  
- 6. One of the most serious health hazards when working on a hot sunny day is:**
  - a. Heavy sweating
  - b. Heat stroke

- 7. In the case of an emergency evacuation, you should:**
  - a. Get in your car and go home immediately
  - b. Put away any tools you are using before evacuating
  - c. Assemble at the designated safe gathering area
  
- 8. Before lifting heavy loads it is a good idea to:**
  - a. Sit down and relax
  - b. Stretch out your muscles
  - c. Notify everyone on the site that you are going to lift something
  
- 9. If you don't have the right tool for the job, you should:**
  - a. Use whatever is handy so as not to waste any time
  - b. Find the right tool and use it
  
- 10. If you must work at a height greater than 10 feet without proper guardrails or scaffolding you need:**
  - a. Excellent boots with a good grip
  - b. A fall protection system
  - c. A fall protection system and appropriate training
  
- 11. Before handling any hazardous chemicals you need to:**
  - a. Put on your work gloves
  - b. Check the label and read the MSDS if unsure of what precautions to take
  - c. Tell your Supervisor
  
- 12. When working around moving vehicles you need to:**
  - a. Be aware of common blind spots and stay clear of them
  - b. Watch the vehicle until it leaves the job site
  - c. Ignore it
  
- 13. When working with a power tool in wet conditions it is a good idea to:**
  - a. Wear rubber boots and a hat
  - b. Use a ground fault circuit interrupter outlet
  - c. Cover the tool with a plastic bag while you use it
  
- 14. When using a straight ladder you should:**
  - a. Make sure the ladder is positioned 1 foot out for every 4 feet up
  - b. Always tie off the ladder at the top
  - c. All of the above



