

# ALEP

*Aboriginal Landcare Education Program*

6

## Maintain Properties and Structures



Learning Guide

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Student name:.....

Student number:.....

# INTRODUCTION

Welcome to *Maintain Properties and Structures*. You may need to build and maintain property and structures around your workplace or community in various land management situations. You might need these skills when working for councils or nurseries, doing ranger work or when managing your own country. Training should be completed on the job over an extended period of time.

This learning guide deals with building and maintaining a small nursery for growing plants. There are instructions for building a **Simple Seedling Shadehouse** for the nursery. The learning guide covers safe use of tools and basic construction techniques. The information and skills gained will be useful for maintaining other properties and structures as well.

## EQUIPMENT REQUIRED

To complete this training you will need the following:

1. Appropriate Personal Protective Equipment (PPE).
2. Safety gear for field work including first aid kit, maps and water.
3. Access to a range of tools for building and maintaining a nursery.
4. Building materials for making a shadehouse.

## ASSIGNMENTS

There are three assignments you will need to complete.

Some of these assignments may go towards your final assessment.



Thanks to the Wulain Rangers for building the **Simple Seedling Shadehouse** in 3A



Section	Assignment	Competent (C) Not yet competent (NYC)	Date Achieved
<b>Getting Prepared</b>	Assignment 1. Project Risk Assessment		
<b>Tools, Equipment and Materials</b>	Assignment 2. Tools		
<b>Building and Maintaining a Nursery</b>	Assignment 3. Build a Seedling Shadehouse		
<b>Finishing Up</b>			

# 1

## GETTING PREPARED

### 1A. COLLECTING INFORMATION

Information about building and maintaining property and structures can be obtained from many sources. The types of situations that you may need to address are many and varied.

This learning guide gives a general outline. You will find many detailed resources in libraries, on the internet and at your local hardware store, garden centre or nursery. Look at the References on page 25 for some ideas.

### 1B. BUILDING AND MAINTAINING SAFELY

There are dangers associated with carrying out building and maintenance work. It is important that you be aware of the potential dangers so you can avoid getting injured or sick.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

- PPE is very important when building and maintaining structures.
- Wear appropriate clothes for working outdoors, i.e. long trousers and a hat etc.
- Wear thick protective gloves when required.
- Solid steel capped working boots will be essential to prevent any crushing injuries to the feet. Joggers are not suitable footwear unless they have steel caps.
- When working underneath structures a hard hat may be necessary.
- Earmuffs will be necessary when working with noisy machinery or tools.



#### KEEP WORK AREA SAFE AND TIDY

- Clean up any unwanted rubbish on the job site straight away.
- Do not leave rubbish lying around when working as it creates a hazard.
- In dry conditions in the bush there is a risk of bushfires starting from sparks from grinders or welders. Look out for dry grass near your worksite and if necessary clean away any dry plant material.
- Have fire fighting equipment handy in case of a fire.
- Watch out for snakes, spiders and wasps, and rusty iron or broken glass, in amongst grass.
- Always have a first aid kit on site and make sure someone has a first aid certificate.



#### SAFE LIFTING

- Always lift heavy objects correctly to avoid injuring your back (see Resource 1).

## WORKING WITH TOOLS

- Keep safe distances away from other workers around hand tools.
- Learn how to maintain and use hand tools correctly to avoid injury.
- Only use tools according to manufacturer’s instructions. For example never use a screwdriver or a knife as a chisel as the blade tip tends to break off and can cause injury.
- Always replace broken tools rather than try and repair.

## POWER TOOLS

- The biggest hazards result from misuse of the tool and improper maintenance. Before using any power tool get proper training on its use.
- Never operate power tools when sleepy, sick, when taking medicines, or if you have been drinking.
- Never carry a power tool by the cord and never pull the cord to disconnect from the power point. This can damage both the cord and the machine.
- All power tools and extension cords should be tested and tagged by a qualified electrician every six months.
- Don’t run power cords where people can trip on them and don’t allow vehicles to drive over power cords.
- Don’t run power cords through water and keep them away from heat, fire, and oil.
- Remove the power cord from the power point when you are not using the tool or when changing things such as saw blades, drill bits and grinding wheels.
- Maintain all tools in perfect working order and make sure the power point is in good condition.
- Always wear appropriate PPE such as gloves, ear plugs and goggles or safety glasses.
- Wear rubber soled boots when using 240 volt power tools to help protect against electric shocks.
- If welding is carried out on the job site be aware that the flash from welders can severely damage your eyes. Never directly or indirectly look at the flash.

## MACHINERY AND VEHICLES

- Extreme caution should be taken using motorised machinery such as cement mixers, augers and slashers.
- Only properly trained people should use motorised machinery. Additional PPE may be required.
- Be aware of vehicles on the work site. Keep well clear of any moving vehicle even if the driver has acknowledged your presence.
- Never approach a vehicle from behind or walk under a load lifted in a bucket.
- Fluorescent safety vests should be worn when the job site has frequent machinery or vehicle movement.
- Use traffic safety cones to direct vehicles on the site.



# 1 – GETTING PREPARED

## HAZARDOUS SUBSTANCES

- Extreme caution should be taken using chemicals and other hazardous substances.
- Only properly trained people should use chemicals and additional PPE may be required.
- Hazardous substances should be correctly stored.

### SAFETY CHECKLIST ACTIVITY








Long trousers, shirt and boots		
Hat (hard hat if necessary) and gloves		
Sunscreen, insect repellent and sunglasses		
Safety vests		
Dust mask		
Additional PPE as required		
Water		
First aid kit		
Fire extinguisher		
Traffic safety cones		
Permits (if required) and maps		

## PROJECT RISK ASSESSMENT



- Stop and think before starting work.
- What needs to be done so you can work safely?
- Complete the **What to do about it?** column – we have written one thing in each box – try and think of some others.
- Fill in all of the last row by adding a new hazard.

HAZARD and what can happen = the risk	What to do about it?
<p><b>TRIP HAZARDS</b></p> <p>Risk of: Injury from falling over</p> 	<ul style="list-style-type: none"> <li>• Don't run – walk carefully</li> <li>•</li> <li>•</li> <li>•</li> </ul>
<p><b>NOISY EQUIPMENT</b></p> <p>Risk of: Damage to ears</p> 	<ul style="list-style-type: none"> <li>• Wear earmuffs</li> <li>•</li> <li>•</li> <li>•</li> </ul>
<p><b>USE OF POWER TOOLS</b></p> <p>Risk of: Injury or electrocution</p> 	<ul style="list-style-type: none"> <li>• Maintain tools properly</li> <li>•</li> <li>•</li> <li>•</li> </ul>
<p><b>LIFTING THINGS</b></p> <p>Risk of: Injured back</p> 	<ul style="list-style-type: none"> <li>• Use a wheelbarrow to move things</li> <li>•</li> <li>•</li> <li>•</li> </ul>
<p><b>SUN EXPOSURE</b></p> <p>Risk of: Heat exhaustion, dehydration and sunburn</p> 	<ul style="list-style-type: none"> <li>• Work in the shade in the middle of the day</li> <li>•</li> <li>•</li> <li>•</li> </ul>
	<ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> <li>•</li> </ul>