

BEST RECIPES FOR INTERPRETING OUR HERITAGE

ACTIVITIES FOR ECOTOUR GUIDES AND OTHERS



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The activity "Serpent Scales" is based upon the Earthwalk activity "Rainbow Chips" published by The Institute for Earth Education. This is one of a collection of similar activities for helping people get in touch with the natural world. *Earthwalks* can be obtained from The Institute for Earth Education, PO Box 41, St Agnes, South Australia 5097.

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FOREWORD

IN the past few years we have seen an upsurge in world interest in nature-based tourism. Conservation agencies, tourism commissions and tour operators have been busy planning, promoting and developing the range of facilities and services to accommodate the international demand for 'ecotourism'.

Ecotourism is "...nature-based tourism that involves interpretation and education, and is managed to be ecologically sustainable (recognising that the 'natural environment' includes cultural components and that 'ecologically sustainable' involves an appropriate return to the community and the long-term conservation of the resource)". (Commonwealth Department of Tourism)

Key components of nature tourism are interaction with, interpretation of and care and support for our heritage – the things we value about our natural environment, our history and our culture. Visitors to natural areas and heritage sites are now looking for a guide to enhance the experience through interpretation which is described as – "...ways to communicate ideas and feelings which enrich people's understanding and appreciation of their world and their role within it". (Interpretation Australia Association)

The participants and clients of the industry are increasingly scrutinising and evaluating the quality of services being provided under the banner of 'ecotourism', particularly the quality of interpretation provided by ecotour guides.

Best Recipes for Interpreting our Heritage. Activities for Ecotour Guides and Others is a tool designed to help ecotourist guides deliver quality interpretive activities.

Section

1

RECIPES FOR ECOTOURISM EXPERIENCES

The recipes for presenting interpretive activities in this book are designed to provide your clients with memorable and personal experiences of Australian natural and cultural heritage. Appreciating our heritage is an essential step towards adding value to visitor experiences while reducing visitor impact.

Some of the activities are active, that is, requiring some physical activity but not necessarily physical fitness; others are passive. All of the activities involve participation, whether it be sensory, mental, physical, imaginative or communicative. They cater for a broad range of audiences, times of day and locations.

The design of each ecotourism "recipe" follows a comprehensive framework which includes the following components:

- ▷ the topic;
- ▷ theme or message;
- ▷ design technique (method of presentation);
- ▷ the experience desired for your participants;
- ▷ the character of the audience;
- ▷ your objectives;
- ▷ an outline of the steps in presenting the activity;
- ▷ the preferred site;
- ▷ the duration of each activity;
- ▷ the preferred time of day;
- ▷ the props required for conducting the activity;
- ▷ a promotional paragraph; and
- ▷ the script.

Most activities require only minor adaptation to suit the area in which you plan to conduct them. There is much food for thought in these activities to stimulate you to create your own recipes.

A few activities are not immediately transferable to other sites. For example, an activity designed for an historic site, ('Moir's Magical Mortar Mix'). It is included to encourage you to incorporate participation into your guided activities at historic places and other sites.

The geological timeline presented in 'Rock and Roll' is specific to The Hills Forest east of Perth in Western Australia. You can create your own timeline and props for your area and make use of the clever technique of delineating geological time on a 'toilet' roll. 'Signs in the Sand' was designed for the arid land animals around Kalgoorlie. You can apply it to animal adaptations in most other bush locations.

Information is also provided on presenting activities and evaluating their success.

An Interpretive Activity Planner is provided to help you design your own activities as well as a Participant Survey Form that participants can use to evaluate the activities you present. The Best Recipes Feedback Form is also provided – we would appreciate your feedback on this book.

Go to it, and good luck in your ventures in providing powerful, personal experiences of Australian heritage.

ABOUT GUIDED ACTIVITIES

In his series *Life on Earth*, naturalist, author and film maker David Attenborough described humans as the “communicative species”. The sophistication of our communicative techniques is what most distinguishes us from other creatures on Earth. Research into human communication has found that face to face communication is the most effective kind of communication, because it is interactive and personally adapted to suit the participants. This is why people seek guided activities to help them explore their world in spite of the plethora of interactive exhibits and multi-media technologies.

Guided activities bring together a guide or activity leader, the participants and a heritage area, whether it be the Australian bush, beach or wetland, an historic site or a place of Aboriginal cultural significance. The guide is the interpreter of Australian heritage and needs to plan the activity with specific outcomes in mind.

Here we provide two dozen recipes for interpretive activities, but like all good recipes, their success depends on the chemistry among the key ingredients – the guide, the site and the participants.

An ecotour is an interpretive activities program – a collection of activities that encourage interaction, reveal meanings and enhance appreciation. Driving or walking through heritage areas with a guide who just talks is not interpretation. Nor is it ecotourism. It is ‘gawk and talk’.

ABOUT GUIDED WALKS AND DRIVES

Most guides start out as leaders for walks and drives. Unfortunately, many never evolve past ‘gawk and talk’ – where the leader merely points out a feature in the environment, tells the group a fact or two and then pushes on to the next feature.

The recipes in this book take you beyond just talking. Everyone in the group gets involved in ways that open the doors of perception, and add value by enriching the experience. This is interpretation.

If you choose a guided tour as your preferred technique, don’t let it constrain you to all talk and no action. The sample ‘A Forest Connection’ has some helpful hints to enrich your tours. Some of the other interpretive activities, in part or whole, can also be incorporated into a guided tour or they may stimulate you to try new ideas with your clients on an established walk, drive, tour or activities program. The aim is to involve your clients through demonstrations and participation, and to encourage them to reflect on the experience.

Section

2

CHOOSING AN ACTIVITY

As a communicator, you need to consider what you want to say (your topic), to whom you want to say it (your audience), and how you can best get your message across (your design technique). On the pages that follow you'll find activities listed by topic, audience and design technique.

Topics

Landscape/seascape (natural processes)

Animals

Plants

Ecology

Aboriginal culture

History

Heritage values

Management issues (for example, fire, disease, feral animals, human impact)

Table 1 groups our Best Recipe activities into key topics, although some involve more than one topic. All of these interpretive activities convey messages about appreciating our heritage and most address appropriate visitor behaviour. For example, as an ecotour guide, if you wish to provide an experience with native animals in the bush, look under Topics and Titles (Table 1) to find animals.

Audiences

The activities primarily target ecotour guides working with adults. However, many activities are suitable for families where teens and children are accompanied by adults. There are some activities just for kids aged six to 12 years. Most of the adult activities are suitable for teens but not kids.

In Table 2, the activities are grouped according to target audiences of adults, families, teens and kids (although many are suitable for a range of ages), the style of audience participation (active/passive) and the topic. For example, if you need an activity which will help your community group aged 25 to 65 to better understand our natural heritage, look under Audience (Table 2) for adult activities.

Design Techniques

There are six design techniques from which to choose:

Arts and craft activities (including performing arts)

Concept exploring activities

Guided walks

Problem solving activities

Sensory activities

Wildlife observations

Many of the activities listed under design techniques can be conducted at night or around a campfire and are also listed under the category 'Evening activities'.

Usually a guide will put together a group of activities covering a range of topics and design techniques. When designing an ecotour program of activities, choose a variety of topics and design techniques so as to appeal to everyone in your tour group.

Table 3 places the activities into a design technique category based on each activity's primary objective. This enables you to add variety to your tour program.

Each design technique challenges the participant to experience our heritage from different perspectives. Some activities could be placed in several design techniques, such as Galactic Wilderness: Exploring our Place in Space, which is primarily a Concept exploring activity but could also be regarded as a Sensory activity.

TABLE 1. ACTIVITIES LISTED BY TOPICS

TOPICS AND TITLES	STYLE	AUDIENCE
LANDSCAPE/SEASCAPE		
Rock and Roll	Passive	Adults; Teens
Watching Waves	Active	Adults; Family
ANIMALS		
Feathered Follies (Bird Watching)	Active	Adults; Family; Teens
Kangaroo Squash	Active	Kids; Teens
Matt the Feral Cat	Active	Family
Signs in the Sand	Active	Adults; Teens
Strangers in the Night (Spotlighting)	Active	Adults; Family; Teens
Yowie Yarn	Passive	Adults
PLANTS		
Getting In Touch	Active	Adults; Family; Teens
Meet the Plants	Active	Adults; Family; Teens
Plant Prints	Active	Adults; Family; Teens; Kids
ECOLOGY¹		
A Forest Connection	Active	Adults; Family; Teens
Galactic Wilderness: Exploring our Place in Space	Passive	Adults; Teens
ABORIGINAL CULTURE		
Bush Survival	Passive	Adults; Teens
Serpent Scales	Active	Adults; Family
Totem Bingo	Passive	Adults; Family
HISTORY		
Moir's Magical Mortar Mix	Active	Adults; Family
HERITAGE VALUES		
An Environmental ABC	Passive	Adults; Teens
Bush Heritage Song Celebration	Passive	Adults; Family
Galactic Wilderness: Exploring our Place in Space	Passive	Adults; Teens
Getting In Touch	Active	Adults; Family
Serpent Scales	Active	Adults; Family
Tuning In	Passive	Adults; Teens
Yowie Yarn	Passive	Adults
MANAGEMENT ISSUES		
(disease; fire; feral animals; weeds; people impact)		
An Environmental ABC	Passive	Adults; Teens
Bruce 'n' Wal's Not-So-Excellent	Active	Family; Teens; Kids
Kimberley Adventure		
Bush Gastronomy	Passive	Adults
Bush Survival	Passive	Adults; Teens
Kangaroo Squash	Active	Teens; Kids
Matt the Feral Cat	Active	Family
Signposts	Active	Adults; Family

¹Most of the Landscape/seascape, Plant and Animal Topics also convey an ecological perspective that reveals the relationship between a species and its environment.

TABLE 2. ACTIVITIES LISTED BY AUDIENCES

AUDIENCE	STYLE	TOPIC
ADULTS		
A Forest Connection	Active	Ecology
An Environmental ABC	Passive	Management issues; Heritage values
Bush Gastronomy	Passive	Management issues
Bush Heritage Song Celebration	Passive	Heritage values
Bush Survival	Passive	Aboriginal culture, Management issues
Feathered Follies (Bird Watching)	Active	Animals
Galactic Wilderness: Exploring our Place in Space	Passive	Ecology
Getting in Touch	Active	Plants; Heritage values
Meet the Plants	Active	Plants
Moir's Magical Mortar Mix	Active	History
Plant Prints	Active	Plants
Rock and Roll	Passive	Landscape
Serpent Scales	Active	Aboriginal culture; Heritage values
Signposts	Active	Management issues
Signs in the Sand	Active	Animals
Strangers in the Night (Spotlighting)	Active	Animals
Totem Bingo	Passive	Aboriginal culture
Tuning In	Passive	Heritage values
Yowie Yarn	Passive	Animals; Heritage values
<i>All family activities and some teen activities are suitable for adult audiences.</i>		
FAMILY (ADULTS, PARENTS, TEENS, KIDS)		
A Forest Connection	Active	Ecology
Bruce 'n' Wal's Not-So-Excellent Kimberley Adventure	Active	Management issues
Bush Heritage Song Celebration	Passive	Heritage values
Feathered Follies (Bird Watching)	Active	Animals
Getting in Touch	Active	Plants; Heritage values
Matt the Feral Cat	Active	Animals; Management issues
Meet the Plants	Active	Plants
Moir's Magical Mortar Mix	Active	History
Plant Prints	Active	Plants
Serpent Scales	Active	Aboriginal culture; Heritage values
Signposts	Active	Management issues
Strangers in the Night (Spotlighting)	Active	Animals
Totem Bingo	Passive	Aboriginal culture
Watching Waves	Active	Seascape
<i>Activities for adults and teens are not suitable for families with kids.</i>		

TABLE 2. ACTIVITIES LISTED BY AUDIENCES

AUDIENCE	STYLE	TOPIC
TEENS (AGES 13-17)		
A Forest Connection	Active	Ecology
An Environmental ABC	Passive	Heritage values; Management issues
Bruce 'n' Wal's Not-So-Excellent Kimberley Adventure	Active	Management issues
Bush Survival	Passive	Aboriginal culture, Management issues
Feathered Follies (Bird Watching)	Active	Animals
Galactic Wilderness: Exploring our Place in Space	Passive	Ecology
Getting In Touch	Active	Plants; Heritage values
Kangaroo Squash	Active	Animals; Management issues
Meet the Plants	Active	Plants
Plant Prints	Active	Plants
Rock and Roll	Passive	Landscape
Signs in the Sand	Active	Animals
Strangers in the Night (Spotlighting)	Active	Animals
Totem Bingo	Passive	Aboriginal culture
Tuning In	Passive	Heritage values
<i>All family activities are suitable for teens and some kids activities may also be appreciated by teens.</i>		
KIDS (AGES 6-12)		
Bruce 'n' Wal's Not-So-Excellent Kimberley Adventure	Active	Management issues
Kangaroo Squash	Active	Animals; Management issues
Matt the Feral Cat	Active	Animals; Management issues

TABLE 3. ACTIVITIES LISTED BY DESIGN TECHNIQUES

ARTS AND CRAFT ACTIVITIES (INCLUDING PERFORMING ARTS)

Bush Heritage Song Celebration
Matt the Feral Cat
Moir's Magical Mortar Mix
Plant Prints

CONCEPT EXPLORING ACTIVITIES

An Environmental ABC
Galactic Wilderness: Exploring our Place in Space
Rock and Roll
Totem Bingo
Watching Waves
Yowie Yarn

GUIDED TOURS

A Forest Connection

PROBLEM SOLVING ACTIVITIES

Bruce 'n' Wal's Not-So-Excellent Kimberley Adventure
Bush Survival
Kangaroo Squash
Signposts

SENSORY ACTIVITIES

Bush Gastronomy
Getting in Touch
Serpent Scales
Tuning In

WILDLIFE OBSERVATIONS

Feathered Follies (Bird Watching)
Meet the Plants
Signs in the Sand
Strangers in the Night (Spotlighting)

Many of these activities can be conducted at night or around the campfire.
The following category of 'Evening activities' groups them for your convenience in
program planning.

EVENING ACTIVITIES

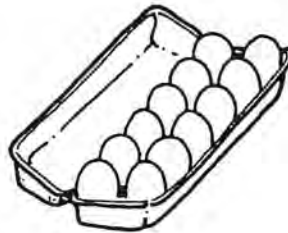
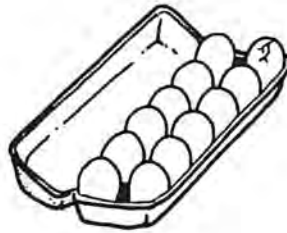
An Environmental ABC
Galactic Wilderness: Exploring our Place in Space
Bruce 'n' Wal's Not-So-Excellent Kimberley Adventure
Bush Gastronomy
Bush Heritage Song Celebration
Bush Survival
Kangaroo Squash
Matt the Feral Cat
Strangers in the Night (Spotlighting)
Yowie Yarn

Section

3

THE ACTIVITY RECIPES

TWO DOZEN BEST RECIPES FOR INTERPRETING OUR HERITAGE



A FOREST CONNECTION

TOPIC

Ecology

THEME/MESSAGE

"Inter-relationships – everything in the bush is related to something else".

DESIGN TECHNIQUE

In 'A Forest Connection guided walk', various activity design techniques including sensory, concept exploring, problem solving and creative activities are used to guide discoveries through a sequence of experiences along the trail.

THE EXPERIENCE

"Take a stroll in the jarrah forest to discover how everything in the bush is related – plants and animals and people. Immerse your senses for a stimulating experience and then consider your feelings for the jarrah forest."

The guided tour enriches the participants' experiences of the site. Their observations, actions, feelings and senses will reveal as much as the words of the Guide.

AUDIENCE

Adults; Family

OBJECTIVES

Understand that everything in the bush is related to something else.

Able to immerse one's senses and visualise past events.

Appreciate a sense of relationship to the bush and its rich resources.

Take actions to enhance experiences and to minimise impact when going bush.

Your Objectives are what you want your clients to know and be able to do, the values they will go away with and the actions you would like them to take.

OUTLINE

Introduce theme: Inter-relationships – everything in the bush is related to something else.

▷ Station 1: Vegetable

Use senses to explore the focus plant (for example, marri or acacia).

▷ Station 2: Animal

Use senses to explore bird associate of focus plant.

▷ Station 3: Mineral

Explore soil and landform associated with plant and animal.

▷ Station 4: People

Explore human use of bush resources.

Express your feelings about the experiences you have had on the walk.

▷ Station 5: Senses

Sensory immersion at a quiet viewing spot.

Conclude with theme of inter-relationships.

SITE

Bushland around which a sequence of interpretive experiences have been designed that supports the Script (below).

TIME LENGTH

90 minutes

TIME OF DAY

Guided tours can be run during the day or the evening, depending on the content, your objectives, the site and the audience. 'A Forest Connection' is designed for daytime in the outdoors. Your audience will be most comfortable if you can avoid high sun and cold wind. Either side of lunch time is best to avoid rumbling tummies.

PROPS

bird squeaker
bird field guide
gumnuts with peckings from twenty-eight and red-capped parrots
hand lenses and magnifying glasses
rock specimens
plant gum/resin
white handkerchief
May Gibbs book
gumnut creatures
timbercraft product
honey jar and tasting sticks for all
tapping sticks

PROMOTION

"Take a guided tour of discovery of the local bush and its secrets. This easy walk is suitable for all with the desire to experience more with less effort. Bring walking shoes and a hat for this 500m stroll over an hour. Now that's immersion!"

Preparing a Promotion paragraph is necessary for advertising your activity and capturing your audience. Make it catchy, set the right expectations, and identify time, place and audience.



Tips for Guides

Give direction, distance, time and 'physical demands' to provide your audience with appropriate expectations.



Script

Good morning.

What a fine day it is for us to explore the concept of 'inter-relationships'. At the end of our tour, we will have seen examples that show that "...everything in the bush is related to something else". We will find out how everything is inter-related while indulging our senses in the natural environment, getting to know a few new things and doing a few new things and, most importantly, I hope to touch your hearts, your feelings for this area. But that's up to you. Perhaps you will tell me at the end of our tour about your new feelings for this area.

▷ *At Station 1*

Look at these. We call these gumnuts because they are the fruit of a gum-extruding tree. Can you see a tree around here that they came from?

Group responds.

Of course, it is this one right above us. Let's have a closer look to see if there is any gum.

Group examines tree.

Wow! Thick, deep, red gum has dried on the trunk of the tree here. That is why the early settlers called this tree a 'red gum' and botanists classify it as a member of the bloodwood family.

Now, there is a relationship amongst a group of trees. And there is also a relationship with people. The Nyoongar Aboriginal people call this tree a 'marri'. They used the gum as an antiseptic for cuts and scratches.

Are there any flowers out now? The nectar from the flowers made a sweet drink for the Nyoongars who would suck the flowers. Want to try it? Watch out for ants and other insects that like the nectar too.

Group tries flowers.

Take a green leaf from the ground and rub it between your palms, then breathe deep like this – holding the crushed leaf up to your face. What's that smell? Yes, that is the smell of Australia. The red gum or marri leaves are rich in eucalyptus oil.

▷ *At Station 2*

Let's all have a closer look at these huge gumnuts that we call "honkey nuts." I don't know why they are called that but perhaps one of you know or can guess? Now everybody pick up two or three honkey nuts that are different or have something special about them and we will sit over here and have a closer look at them.

Group picks up honkey nuts and gathers together.

Ah! This is what I hoped you would find. See these notches on the gumnuts? These are made by the ringneck parrot as it chews the honkey nut for the seeds. Now, the marks on this honkey nut are different. They are made by the red-capped parrot that has a long, curved beak especially adapted for digging the seeds out of honkey nuts. The marks are from the lower bill as the longer upper bill digs out the seeds.

I have pictures of the two parrots in this field guide to Australian birds. Look at the beak on the two birds. I'll show you how the marks are made with these pliers. These long-nosed pliers are like the beak of the red-capped parrot and can reach down into the gumnut – see the lower mark on the outside of the nut. These short-nosed pliers can only grip the lip of the gumnut, like the ringneck parrot.

But look at these gumnuts that have been crushed by something. What do you think did that? That's right. A bloody big set of pliers of the white-tailed black cockatoo. Here is a picture of it. Now as we walk along, watch the marri trees for the cockatoo and parrots that inter-relate with the trees by eating the honkey nuts and dispersing the seeds.

▷ *At Station 3*

Let's sit down and listen to the bush. When I say to, put your hands over your ears like this and press hard against your head for 10 seconds. Release when I raise my hand and listen for 20 seconds in silence. Hands on ears and press.

Group presses hands to ears.

Release.....So what happened? It sharpened your focus on sounds. What could you hear? The parrots? the honeyeaters?

Group responds.

Did you know that you can call birds up by mimicking their calls? You can do it with your mouth making sucking sounds or you can use one of these bird squeakers. I got mine from the Royal Australian Ornithologist Union.

Let's see if we can call up a bird and identify it by looking at its size and shape, the special features of its beak and legs, the colour patterns, its behaviour and even its call. I need someone to look in the bird field guide and the rest of us to be the observers and describers.

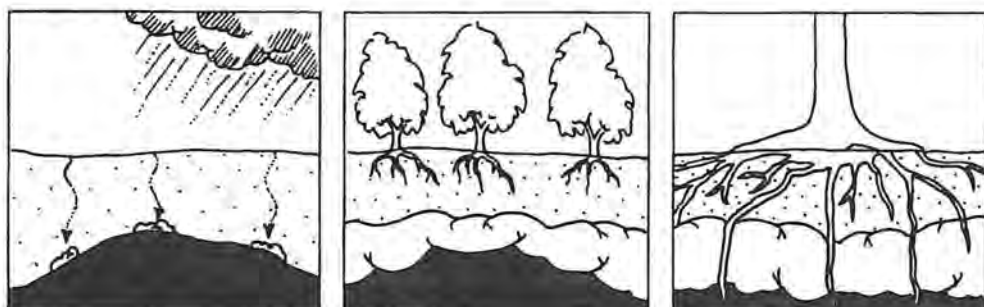
Guide makes squeaking sounds.

Small brown bird about the size of a finch (*use parrot as an example of a medium sized bird and "larger than a parrot" for a large bird*) Slightly down-curved bill, black legs, pale patch at base of bill, otherwise brown all over. Flighty. Has tuneful call of many notes sounding a bit like 'pitta pitta pitta'. Possibly a honeyeater, looks like a brown honeyeater. Let's see if it is found in these parts. Yes, it is. What about its call? Sounds good to me. Isn't bird watching easy. So, what was it doing? Searching for nectar and insects amongst the foliage and flowers. Again we find things in the bush relating to one another.

▷ *At Station 4*

Have a look here at the soil these plants are living in. What do you think? Sand, loam, clay or gravel? Gravelly, isn't it? This stuff we call laterite. Jarrah trees are particularly adept at living in the low nutrient, gravelly country you see here. That is because they have many long, 'sinker' roots that find their way down deep through the gravel and caprock to tap water. The caprock is slabs of this orange rock. I'll show you with a mud map - that is what we call a drawing in the dirt.

Guide draws sketches on the ground to show the formation of caprock and the characteristics of jarrah roots.



Script

Here is the granite formed from cooling magma beneath the earth's surface. As the sand and rock above the granite weathers from rain and chemical acids in the soil, the surface of the granite also changes to form a white clay.

Guide scratches drawing in the dirt with a stick.

The climate was wetter and more humid here up until the past 10,000 years. The clay formed from the weathering granite began to percolate and the iron-rich minerals oxidised to create a type of rock rust. This is the laterite.

Guide draws layer.

When it became drier, the laterite solidified into the caprock. This is what the jarrah sinker roots have to penetrate.

Guide draws jarrah roots.

Even though it is shallow gravelly soil, it is surprising what you can find in the leaf litter. I'll put down this clean, white handkerchief and scratch the leaf litter away to see what's there.

Springtails will jump immediately, most likely ending up on the handkerchief. Guide can point out other creatures or place them on the handkerchief. Guide hands around magnifying glasses.

Most of these are 'little rotters' that help break down rotting vegetation and return it to the soil as nutrients to be used again by the plants such as the jarrah and marri that we have met on our short walk. You can see that there is a special relationship between the distribution of plants and the soil and rock type, and the creatures that live in the leaf litter of the forest floor.

▷ At Station 5

Earlier I told you that the Nyoongar Aborigines used the marri gum. Can you remember what it was used for?

Group responds.

That is right. The marri gum was used as a bush medicine antiseptic. It was also used to help treat diarrhoea. Well, the white folks that came to live in Perth from 1827 were also intrigued by the marri tree.

One of Australia's folk heroes is May Gibbs who created the stories of the gumnut babies, Snugglepot and Cuddlepie.

Guide shows pictures of 'gumnut babies' in May Gibbs' book.

Today, most Australian kids make something out of gumnuts and other bits of bush. You might have seen these in the craft shops.

Guide passes around gumnut craft creatures.

Marri is also used for woodchips and for making paper and timber products.

Guide shows turned marri and jarrah items.

The pink to red timber is jarrah. Jarrah and marri also produce good honey if you want to taste some that I have here. Grab a clean stick and take a dip in the honey pot for a taste of south-western Australia.

Guide offers honey and tasting sticks.

▷ At Station 6

OK. Now we have a chance for you to express yourself if you want to. Have a look around for an interesting gumnut. Perhaps one like this one that looks like a set of lips with something special to say. While you look for your memento of

your bush experience today, think about the feelings you have had on our walk together.

Group collects gumnuts.

It looks like everybody has found their special friend. What have you noticed about your gumnut? Wow! Isn't there a variety of gumnut shapes and sizes. Now, when I say to, find a quiet spot alone for five minutes where you can sit, lean or stand. Don't go more than 100 metres from here so you don't get lost and you can hear me when I call you back by tapping these sticks together like this.

Guide demonstrates with Aboriginal tapping sticks.

This is a time for sensory immersion. Choose your quiet spot and reflect on your experiences, your special friend and your relationship with our bush heritage.

Group disperses.

Guide calls group back with tapping sticks.

When we started our walk, I said that we would explore the concept of 'inter-relationships' – that everything in the bush is related to something else. What are some of those relationships that we explored?

Possible responses from group include: marri is in the bloodwood family of trees and is related to other trees with eucalyptus oil; traditional Nyoongar people and people today use the marri, jarrah and other trees for medicine, drink, crafts, paper and timber; parrots and the cockatoo open, eat and disperse the marri nuts and seeds; other birds like the brown honeyeater we saw inter-relate with the flowers, nectar and insects of the shrubs; the 'little rotters' we saw in the leaf litter and the trees and shrubs are all inter-related to the soil and rocks of this landscape.

That's great. We discovered a lot of relationships in this bush. But what about our relationship? I started out today saying that I hoped I might help the Australian bush here to touch your hearts, your feelings for this area. Does anybody want to share something of your relationship with the bush today? Yes...No...you are a little shy, perhaps. Does your special gumnut friend want to say anything?

Well, each time I come into the bush something renews and enriches my relationship with the plants, the animals, the landforms, the soil and the rocks, and the people here.

Today I saw the brown honeyeater and I thought we are all going about our business tasting this, saying that, and I felt that if I would just sit back and listen and observe, special things like the honeyeater will come to me and share something with me such as the honeyeater's song.

Thanks for sharing this walk with me. I've enjoyed our brief but rewarding relationship. Let's head back to the bus remembering that everything in the bush is related to something else and that includes you, too.



ringneck parrot



red-capped parrot



Baudin's black cockatoo

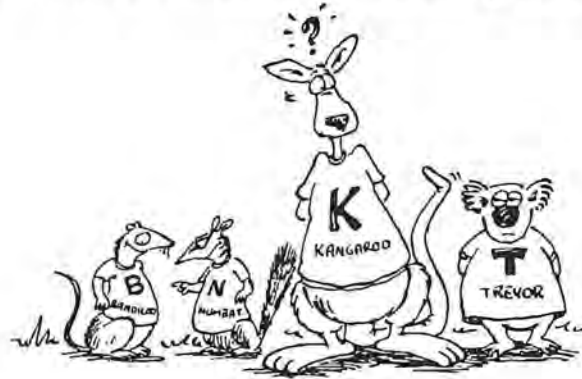
AN ENVIRONMENTAL ABC

TOPIC

Heritage values; Management issues

THEME/MESSAGE

There is a diversity of disciplines, cultures, philosophies, tasks, issues and solutions within CALM.
(the Department of Conservation and Land Management. Western Australia)



DESIGN TECHNIQUE

Concept exploring activity

THE EXPERIENCE

A slide presentation with a quiz night flavour

AUDIENCE

Adults; Teens

Maximum 30; minimum 5

OBJECTIVES

Understand the role and responsibilities of CALM and its staff.

Be able to identify the issues, topics and functions of an integrated agency and the people within it.

Appreciate the diversity of tasks in conservation and land management in Western Australia.

OUTLINE

Begin slide show (29 slides with accompanying talk).

Each slide stands for a letter of the alphabet and illustrates activities or interests in CALM, with some tenuous connections to develop humour.

Audience invited to participate by guessing aloud the topic of each slide.

SITE

Suitable for slide presentation

TIME LENGTH

40 to 60 minutes

TIME OF DAY

Requires darkened room or evening out of doors

PROPS

slide projector and screen

slides

sound system optional

PROMOTION

Everyone knows their ABCs, or do they? Enjoy some fabulous photos while you test your knowledge of the Department of Conservation and Land Management in Western Australia (CALM) at this slide show with a quiz night flavour.

Script

Welcome everyone.

Today/tonight we are going to learn our Environmental ABCs. You'll see a slide for every letter of the alphabet that stands for one of CALM's roles and responsibilities. CALM is short for the Department of Conservation and Land Management.

You probably think that you know your ABCs very well. Here is your chance to prove it. You're invited to call out the words that you think match the letter.

First, here is a map of the CALM estate, which covers 20 million hectares in this state of Western Australia. For our staff of 1300, that is over 15,000 hectares each to look after.

A is for Aborigines. CALM has several Aboriginal Heritage Officers and rangers, and co-operative projects all around the state, for example, the Lake Jasper Project.

B is for bugs. We have research workers looking at a myriad of management and environmental problems. At Manjimup, amongst other things, a team is looking at insects which attack eucalypts.

C is for crocodiles. CALM manages wildlife on and off the CALM estate.

D is for dieback. Dieback is the name of the fungal disease which attacks WA's native vegetation. It can be soil-borne or airborne. Banksias and other Proteaceae are particularly susceptible. The disease is known to be present from the Greenough region to Cape Arid, and presents a myriad of management problems.

E is for endangered and threatened species, under CALM's 'Nature Conservation' program. We have special areas managed for threatened animal species, for example, Perup near Manjimup. A research team spends much of its time studying the lives of these species. We are developing a management course for farmers to learn to manage threatened species on their properties. There is a recovery program to re-introduce species into areas where they once lived.

F is for fire. CALM recognises that Australian eco-systems have evolved in the presence of fire. Many species are fire-dependent for their regeneration or survival, for example, melaleuca thickets and tammars, whilst some require fire exclusion, for example, the Noisy Scrub Bird. CALM has a range of fire management regimes which incorporate the eco-system needs with the need to protect human values of life and property.

G is for Goldfields, for some perhaps the forgotten CALM estate. We range across hundreds of thousands of hectares of conservation land in the desert region, and manage the multi-million dollar sandalwood industry.

H is for heritage. CALM has many significant sites of European and Aboriginal cultural heritage to look after on its land. We also have an agreement with the Australian Heritage Commission for forest areas of high natural heritage value, and manage them accordingly.



Script

I is for interpretation, the name given to the process of explaining natural and cultural systems to people. This can be through publications, sign displays and guided activities which enhance visitors' experiences and appreciation.

J is for jarrah forest. Around 1.6 million hectares of jarrah forest are managed for a variety of purposes, including one quarter as Conservation Reserves or National Parks. Bauxite mining has taken place on about 6000 hectares and continues on around 500 hectares a year. The mean age of 107 of the biggest veteran trees from areas including virgin forest was determined by non-destructive sampling to be 208 years. The oldest known tree is 377 years old.

K is for koalas! Yes, as a legacy of the early philosophy of the National Parks Board, CALM manages a population of koalas imported into Yanchep National Park.

L is for lakes, in this case the lakes of the wheatbelt which were left as unsuitable for agriculture and suitable for duck shooting. They are now often the only remnant of the original vegetation and form a valuable network of nature reserves.

M is for Marine Parks. CALM manages a growing number of marine parks and reserves, the jewels being Shoalwater and Rowley Shoals.

N is for nurseries. We have a major nursery at Manjimup that produces several million trees a year for forest regeneration, and shelterbelt and plantation establishment on farmland. Two smaller nurseries serve the wheatbelt from Narrogin, and the Kimberley from Broome.

O is for off-shore islands. Most of the thousands of islands around the WA coast are Nature Reserves, for example, the Recherche Archipelago near Esperance, the Abrolhos off Geraldton, the Dampier Archipelago in the Pilbara, the Monte Bellos, and Buccaneer Archipelago in the Kimberley. We have rangers in planes and boats managing these places.

P is for planes. CALM has aircraft in use for aerial surveillance, fox baiting, dieback mapping, and for fire surveillance and ignition.

Q is for Qualup Bells and other rare flora. The continued survival of these species is a management priority above all others. Before any operation takes place, the likelihood of rare flora being present is examined.



Tips for Guides

'An Environmental ABC' was originally developed as a tongue-in-cheek presentation for a group of teachers. Each letter is a prompt for a role or responsibility of the agency. As some agency functions start with the same letter (for example, recreation, rescue, roadside conservation, remnant vegetation), it was quite difficult to match an important function to every letter of the alphabet. So poetic license was taken and the activity became interactive! An example is 'O' for (offshore) islands.

Almost every slide:letter relationship is cryptic. This gets people guessing aloud and trying to upstage each other with their knowledge of a conservation agency.

Script

R is for recreation. 'Recreation and Tourism' is one of the three primary programs of CALM. A range of sustainable recreation opportunities in different locations with different levels of access and facilities is planned throughout the state.

S is for Search and Rescue. Because of the inherent dangers of recreating and working in natural settings, the organisation has staff trained and equipped to search for and rescue people in peril on the CALM estate.

T is for timber resource management, under the CALM 'Forest Production' program. Forests are regularly measured using aerial and ground techniques to determine and monitor the amount of timber contained in trees in State forests. Meanwhile, extensive research and monitoring enables forest managers to accurately predict growth rates. By combining this information, the volume of timber grown in the forest each year can be predicted, and only a similar or less amount is allowed to be harvested. A sustainable yield of around 2.3 million cubic metres of marri, jarrah and karri timber is harvested each year.

U is for the underground estate – caves and karsts. CALM manages thousands of caves and karsts, ranging from the well-known tourist caves at Yanchep and Margaret River to the massive systems under the Nullarbor and the Kimberley. For a start, we have cave rescue training, cave management guidelines, cave touring and adventure caving.

V is for Vic. Vic is one of several hundred people from all walks of life who volunteer to help CALM. Their tasks range from biological surveys (this slide is Vic Smith who did a detailed survey of Torndirrup National Park) to Campground Hosts who guide visitors to campsites from Esperance to the Bungle Bungles. There are university students who undertake monitoring projects, unemployed youth who build walk trails and fishing groups who stabilise dunes with marram grass.

W is for whales and other marine mammals. CALM is responsible for managing whales, dolphins, dugongs and turtles in Australian waters adjacent to the State, including whale strandings.

X is for exploration! The State government permits mineral exploration and mining in some national parks (for example, D'Entrecasteaux and Karijini [Hamersley] and many Nature Reserves. CALM monitors the impact of these operations.

Y is for wildflowers! Not only is CALM the conservation authority for plants, it is also responsible for administering the multi million dollar wildflower picking industry.

Z is for Zuytdorp Cliffs, part of which are in the national park. There are currently around 60 national parks throughout the State.

Well, how did you go with the Environmental ABC? Would you pass the Year One test? Thanks for coming. It has been a pleasure to share with you this brief look at CALM's diverse disciplines, tasks and responsibilities.

BRUCE 'N' WAL'S NOT-SO-EXCELLENT KIMBERLEY ADVENTURE

TOPIC

Management issues

THEME/MESSAGE

Care for the bush: take your rubbish with you, keep campfires small, don't use soap in waterholes and come back again.

DESIGN TECHNIQUE

Problem solving activity

THE EXPERIENCE

A stage play with audience participation in identifying and solving environmental problems due to visitor impact.

AUDIENCE

Family; Teens; Kids

Maximum: up to 100; minimum: 5

OBJECTIVES

Knowledge of human impacts on wildlife and the environment due to recreational use.

Able to observe and recall actions that impact on the environment.

Able to offer alternative actions to minimise impact on the environment and wildlife.

Appreciate natural values and care for the natural environment.

OUTLINE

Welcome.

Act 1: Bruce 'n' Wal go fishing and leave their rubbish behind which causes problems for the animals.

Act 2: Bruce 'n' Wal camp overnight and use soap in the waterhole which pollutes the water.

Act 3: Bruce 'n' Wal have a big campfire and chop down trees which destroys animal homes and food.

Act 4: Bruce 'n' Wal get bogged and blame other people for the erosion, rubbish and the scarcity of trees and birds.

Discussion and conclusion with message.

SITE

Wherever you can get a stage and audience together

Seating optional

Lighting needed for evening presentation

TIME LENGTH

45 minutes

TIME OF DAY

Day or night

PROPS

characters' props (for example, animal masks for lizard, echidna, galah, wallaby, crocodile, white ant)

stage props (for example, hats, fishing rods, two swags, cans and bottles, esky, 4W drive, wood for campfire, axe, shovel)

slide projector for backdrop (optional)

script books with each player's part highlighted
prompt cards for audience participation

1. Cheers and whistles

2. Care for the Kimberley

sounds (bird calls, a splash, axe chopping, car revving)

'Care for the Kimberley' leaflet for grown-ups

PROMOTION

Bruce 'n' Wal's Not-So-Excellent Kimberley Adventure is a show for kids of all ages. Come along for some great entertainment and discover how you can make a difference on your next adventure outback.

Script

Narrator: Welcome to our show, 'Bruce and Wal's Not So Excellent Kimberley Adventure'.

Our not so heroic heroes, Bruce and Wal, have yet to learn how to care for the Kimberley. We hope that you know better and can help our animal friends to teach them. When you see one of our Kimberley animals holding up one of these signs, please respond to the prompt. Let's try it now.

Holds up prompt sign. Audience cheers. Holds up prompt sign. Audience replies: Care for the Kimberley.



ACT 1

▷ SCENE 1

Bruce comes on stage in an excited state

Narrator: Bruce was very excited. Today he was taking delivery of his new 4 Wheel Drive.

4WD drives on stage. Prompt card for cheers and whistles from audience

Bruce: Great! Now I'll be able to go out to that secret fishing spot that my old mate Wally was telling me about. Hey! Perhaps Wally would like to go fishing with me. *(yells)* Wally!

Wally comes on stage

Bruce: Wanna go fishing this weekend, Wal?

Wally: Wadda ya reckon. I wanna try out my new rod. Hey mate, nice looking vehicle.

Prompt cheers and whistles

▷ SCENE 2

Bruce and Wally fishing

Narrator: So on the weekend Bruce and Wally go fishing at the secret spot. Bruce caught a couple of catfish while Wally caught a big bream using his new rod.

Prompt for cheers, whistles from audience as Wally pulls in a fish

Narrator: It's warm weather so Bruce and Wally have a few drinks.

Bruce and Wally drink and throw cans and bottles on ground

Narrator: All too soon it was time to pack up and go home.

Bruce: What about all this rubbish Wally?

Wally: Ah, don't worry about it. The next 'wet' will take it away.

Bruce and Wally walk to the car

Animal *(from side):* Take your rubbish with you. Pack it in; Pack it out. Care for the Kimberley!

Prompt 'Care for the Kimberley'



Script

▷ SCENE 3

Birds and animals at waterhole

Narrator: Early next morning the animals and birds come to the waterhole to drink.

Lizard (*looks at cans and bottles*): What are all these strange things? This smells tasty (*looks at bottle*).

I might try this...

squeezes into bottle

...it's a bit tight but I'll squeeze in. Yum! Yum!

Narrator: Lizard found he was trapped.

Lizard: Help! Help! I can't get out.

Narrator: Echidna was searching for ants. They were crawling inside a coke can following the trail of sweet sticky liquid. Next thing, Echidna found his beak stuck in the can.

Echidna: Help! Help! I won't be able to eat any more.

Galah: It's about time you went on a diet.

Narrator: The animals weren't very happy about the rubbish in their home.

Animal (*from side*): Take your rubbish with you. Pack it in; Pack it out. Care for the Kimberley.

Prompt 'Care for the Kimberley'

ACT 2

▷ SCENE 1

Narrator: Next weekend Bruce and Wally planned another fishing trip. They had enjoyed their last trip such a lot that this time they wanted to camp overnight.

Wally: It's about time I got the old swag out again.

Puts swag near 4WD

▷ SCENE 2

Bruce and Wally fishing

Narrator: At the secret fishing spot, Bruce and Wally had a great time fishing.

Bruce: It's great getting out in the bush, Wal.

Wally: Yeah. Not many things beat fishing in the Kimberley.

Narrator: Late in the evening they had an esky full of fish. They were tired. It was time to roll out the swags.

Bruce and Wally lie down on swags. Snoring sounds

Animal (*from side*): What a racket! How's an animal supposed to get any sleep?

Narrator: Next morning

Sound of birds

Wally: What a racket!. How's a fella supposed to get any sleep?

Bruce: Wouldn't mind getting a bit cleaned up before we go back to town. What about a wash. The water looks tempting.

Bruce and Wally jump in waterhole. Sound of a splash

Script

Wally: Hey! Got any soap? I'm real smelly.

Bruce and Wally wash

Wally: (*sings*) Lalalalalalal! What a beaut spot, hey! Won't mind getting back to town though.

Animal (*from side*): Don't use soap in waterholes! Care for the Kimberley.

Prompt 'Care for the Kimberley'

▷ SCENE 3

Animals and birds at waterhole

Narrator: Later that afternoon the animals come to drink at the waterhole.

Wallaby (*Coughs after drinking*): Yuk! This water is really horrible. I can't drink this. I'll have to go all the way to the other waterhole.

Crocodile (*Appears rubbing eyes*): Ouch! My eyes are stinging. I'll have to stay under water all the time. (*Crocodile disappears*)

Animal (*from side*): Don't use soap in waterholes! Care for the Kimberley.

Prompt 'Care for the Kimberley'

ACT 3

▷ SCENE 1

Narrator: It's the dry season and Bruce and Wally plan another fishing trip.

Bruce: Do you still want to camp out, Wally? The nights have been really cold.

Wally: Not a problem, Bruce. Extra blankets in the swags and we can have a big campfire.

▷ SCENE 2

Narrator: At the secret fishing spot Bruce and Wally set up camp. They gather a big pile of firewood.

Bruce: Reckon this will be enough, Wally?

Wally: Better get some more. (*with axe in hand*) I'll chop some of these trees down. It's amazing how cold the nights can get in the Kimberley.

Animal (*from side*): Keep campfires small. Wood provides homes and food for animals. Care for the Kimberley.

Prompt 'Care for the Kimberley'

▷ SCENE 3

Narrator: Next morning after Bruce and Wally have gone back to town, the animals gather at the waterhole.

Lizard: My home in the log has gone. I'll have to spend all day searching for another.

Galah: The tree where I was making a nest is gone. I'll have to look for another but good vacant tree hollows are very hard to come by.

White ant: There's no dead wood to eat here any more. Perhaps we should move into town and find some houses to eat.

Animal (*from side*): Wood provides homes and food for animals. Keep campfires small or use gas. Care for the Kimberley.

Prompt 'Care for the Kimberley'

Script

ACT 4

▷ SCENE 1

Narrator: Bruce and Wally plan a wet season fishing trip to the secret fishing spot.

Wally: The fishing's usually better in the wet.

Bruce: Do you think the track will be OK, Wally?

Wally: No worries! We've got the winch and shovels just in case.

▷ SCENE 2

Narrator: On the way to the fishing spot the vehicle becomes bogged in black soil.

Wally (*shovel in hand*): Dig Bruce! Dig! Now jack it up. OK. Give it a go now.

Sound of vehicle revving

Bruce: It's no good, Wally. We're still stuck.

Wally: Give us the axe, Bruce. (*takes axe*)

A few branches on the track will help the traction.

Sound of axe chopping; sound of vehicle revving

Narrator: Finally Bruce and Wally get the vehicle out of the bog.

Prompt cheers and whistles

Wally: Better go off the track, Bruce, so you don't get bogged again.

Animal (*from side*): Keep off wet and badly eroded roads. Care for the Kimberley.

Prompt 'Care for the Kimberley'

▷ SCENE 3

Narrator: A few months later Bruce and Wally are driving to the secret fishing spot.

Bruce: Look at all these tracks all over the place, Wally. Which is the right track to the fishing spot?

Wally: The middle one I think. Hey! Watch out for that big hole! Half of the track's washed away.

Bruce: It's great to get back to the fishing spot, Wal. But what a mess it looks. There's rubbish everywhere.

Wally: Seem to remember there being a few more shady trees than this. And a few more birds.

Bruce: Are you sure we're at the right spot, Wal?

Wally: Dead sure. It must be all those other blokes coming out from town. Leaving rubbish everywhere, chopping down trees, stuffing up the track.

Bruce: What happened to our secret spot, mate?

Animal (*from side*): Care for the Kimberley!

Prompt 'Care for the Kimberley'

Narrator: We hope that you've enjoyed our show. Thank you for your participation. I can see there aren't any Bruces or Wallys in this group! You all know how to care for the Kimberley.

For the grown-ups there is a pamphlet on caring for the Kimberley that we hope you will take time to read. Care for the Kimberley!

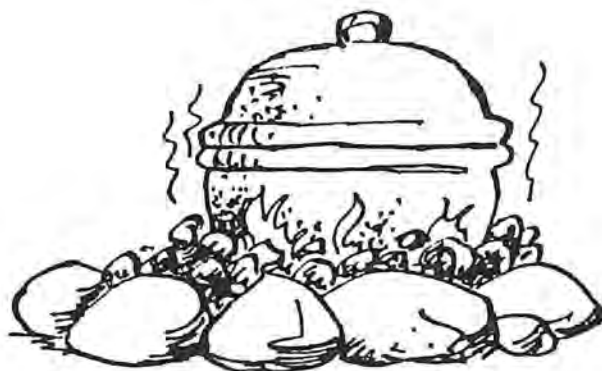
BUSH GASTRONOMY

TOPIC

Management issues

THEME/MESSAGE

Everyone and everything needs shelter so keep the 'Habitat Intact'.



DESIGN TECHNIQUE

Sensory activity

THE EXPERIENCE

A bush barbecue with talk and discussion about fires, firewood and habitat for animals

Use popularity of bush barbecue to gather and hold audience while giving a positive environmental message.

AUDIENCE

Adults

Maximum: 12; minimum: 4

OBJECTIVES

Human use (campfires) affects wildlife habitat.
Know that habitat protection is important

OUTLINE

Describe the menu.

Explain why we are cooking with gas.

Group helps with cooking.

Explain how removing wood and bark can alter the ecosystem.

Use props to reinforce the message.

Give bookmark for take-away message.

SITE

Picnic spot with natural bush habitat around

TIME LENGTH

60 minutes

TIME OF DAY

Midday or evening meal time

PROPS

2 x gas barbecues (1 for grilling, 1 gas ring for damper, billy tea)

prepared food and drink, oil

logs with termites, lizards

damper and other BBQ food

camp oven for damper

table for food and drink

bookmarks 'Keep the Habitat Intact'

PROMOTION

Join your Guide/Ranger (name) for a bush barbecue with a difference. Discover the conservation values of cooking with gas while enjoying a nosh and a slosh (BYO).

Script

Hello everyone!

Welcome to our 'Bush Gastronomy' experience. Ready for a barbecue? That's something that Aussies really love, isn't it. Any Aussies here? Where are you from? And anyone from overseas? Looks like Aussie barbeques have got you, too, hey?

Actually, this is a barbecue for gourmets. On the menu we have squid rings, beer damper, ground beef kebabs and stuffed sausages.

One great thing about a barbecue is that everyone gets acquainted. The best way to get acquainted is to volunteer to be a helper. Who wants to look after the sausages? Thanks!

Organise meat cooking.

Who wants to open the wine and soft drinks and make sure everyone has something to drink? Thanks!

Organise drinks servers.

While we're waiting for the barbecue, try some of this hot spicy damper.

Guests serve themselves.

There is one job that no-one has to do for this barbecue – that's gathering wood and twigs for a fire. We're using gas. Because we're not going to burn up anybody's house today. Not a human's house or a creature's house. Did you know that most bushfires are started from people being careless with fire and most of these fires start as campfires? Millions of dollars in damage is caused and lives lost every year because of bushfires from campfires that got away.

And what creatures do I have in mind? Let's take a look over in the bush to see what I mean.

Walk with group to nearby logs and rocks.

Branches and twigs and bark are homes and food for many creatures. See, here are some termites. They are one of nature's most nutritious food, and when they aren't on somebody's menu, (like the echidna and the numbat) they are busy chewing up and recycling wood and grass into soil.

And here is a centipede; it's good eating, for someone like a black faced cuckoo shrike or a mud lark. And these ants bury twigs and grass for their food.

All of these creatures are essential to the health of our bush. And here is a hollow log that would make a good home for a small mammal. Of course, they need more than one, for when the neighbourhood snake finds one log home, the mammal has to scamper off to another, and quick.

We have found that picnic areas where people regularly gather wood and bark for barbecue fires gradually lose their birds and animals. It's not so surprising. They've lost their homes and their food. Intact Habitat, that's our motto.

Well, we'd better check those sausages.

Group returns to gas barbecue.

Looks like it's about ready. Come and help yourselves.



Tips for Guides

The night before:

Prepare the food (recipes below).

On the day; In nearby bush, place logs with termites and hollow logs suitable to shelter a mammal, perhaps even a log or rock with a lizard under it. Check out the whereabouts of invertebrates, centipedes, ants, spiders, grasshoppers.

Prepare and cook damper and keep it warm. Warm up the gas barbecue for the meat.

Script

Guide mingles with group and reinforces the message. For example: how was the food? Did you enjoy the stuffed sausage? Did you notice how evenly it was cooked? Tastes great and no smoke in your eyes! What a winner, and even better, the habitat stays intact.

Thanks for coming, everyone. Here is a small souvenir.

Hand out bookmarks with motto Keep the Habitat Intact on one side and promo of agency, product or business on the other.



**KEEP THE
HABITAT INTACT**



BBQ SQUID RINGS

500 g squid rings
1 cup of red or white wine
1/2 cup olive oil
4 garlic cloves, crushed
3 bay leaves
pinch of salt
1 tablespoon ground black pepper

♦ Combine all ingredients (except pepper) in a bowl, cover and let stand in refrigerator, covered, overnight ♦ Drain marinade and sprinkle squid with pepper ♦ Brush barbecue plate with olive oil and cook squid for 30 seconds only ♦ Place into hot serving dish and drizzle a small amount of marinade over the squid

BEER DAMPER

3 cups self-raising flour
pinch of salt
3/4 cup beer
3/4 cup milk
1 tablespoon dried mixed herbs
a hard cheese, like Parmesan, grated
olive oil

This is best mixed just before barbecuing.

♦ Sift flour, salt and herbs ♦ Stir in liquid to form a thick, sticky dough ♦ Dust hands with flour and shape dough into loaf
♦ Place on foil that has been well brushed with olive oil
♦ Cook in gas camp oven (preferably) or on hot barbecue plate for about 3/4 hour

GROUND BEEF KEBABS

500 g minced beef
1/2 cup bread crumbs
1 egg, beaten
1 tablespoon olive oil
1 tablespoon white wine
2 tablespoons each chopped parsley and mint
3 garlic cloves, crushed
2 tablespoons tomato sauce
ground pepper to taste

✦ Combine all ingredients and mix well ✦ Let stand overnight, covered, in refrigerator ✦ Mound into sausage shapes and form around long wooden skewers ✦ Chill for two hours ✦ Cook on a moderately hot plate, turning regularly

STUFFED SAUSAGE

1 kg thick beef sausage
garlic, chopped
mint, chopped
cheese, grated
tomatoes, chopped
ground pepper
toothpicks

✦ Place sausages in large pot and simmer gently until almost cooked ✦ Cool. Mix chopped ingredients together ✦ Cut a slit lengthways in sausages to form a pocket ✦ Fill with chopped ingredients and secure with toothpicks ✦ Cook on moderately hot barbecue plate

BUSH HERITAGE SONG CELEBRATION

TOPIC

Heritage values

THEME/MESSAGE

Bugger the bush and you bugger our cultural heritage.

DESIGN TECHNIQUE

Arts and craft activity (performing arts)

THE EXPERIENCE

Rich, sensory experience of rousing songs and music with audience participation: flickering firelight, spoken historical commentary, billy tea and damper

AUDIENCE

Adults; Family

Maximum: limited only by venue and sound system

OBJECTIVES

Knowledge of Australian history and culture through a selection of bush songs

Participate in campfire songs.

Appreciate our traditional songs and the bush culture that inspired them.

OUTLINE

Introduce historic context of bush songs.

Demonstrate song chorus boards for singalong participation

Commentary and songs

Conclude with message: If you bugger the bush, you bugger our cultural heritage.

SITE

Campfire. Seating optional.

TIME LENGTH

90 minutes

TIME OF DAY

Evening

PROPS

lantern(s) or spotlight(s) to read notes, illuminate the chorus boards and throw light onto face of storyteller

musician and musical instruments or good quality tape/CD player with tapes/CDs
tapping sticks, boomerangs, didgeridoo
prompt boards with butchers paper and chorus lyrics

song lyric sheets to hand out

billy tea and damper

period costumes for participants and audience (optional): convict stripes on shirt; hat with corks; Ned Kelly's armour; 'bluey' (swag on a pole); tin hat and gun; hard hat; ranger's hat

placards held by performers in second half of show: Don't bugger the bush; True Blue Aussies Care; Advance Australia where?; Life. Be in it; Stow it, don't throw it; Slip Slop Slap

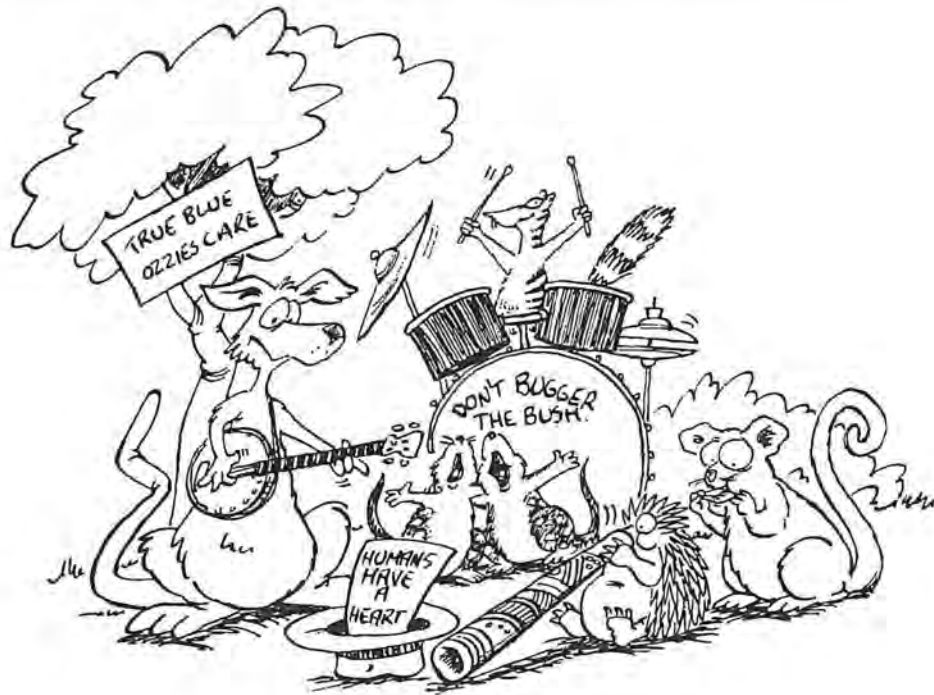
screen for slides

slides: bush habitats; the works of Australian bush artists; heritage icons such as windmill, FJ Holden, Rosella biscuit tin

PROMOTION

Come along and enjoy a frolicking journey through Australian history with bush song accompaniment by the campfire. Bring your voice, instruments if you have them, a pillow to sit on, a mug for billy tea and damper and a passion for participating in our Australian heritage.

Script



Welcome to our Bush Heritage Song Celebration. We have a special performance for you all tonight, an interpretation of our Australian heritage through bush songs, performed by (*insert performers' names OR your Bush Disc Jockey*). The songs are from Australian musicians including the Bushwackers Band, Redgum, James Reyne and James Blundell, Paul Kelly and John Williamson.

Tonight's interpretive journey through Australian history is illustrated with bush songs. We need your participation with the choruses – here are the words on the boards and on the lyric sheets that are being handed out.

Show prompt boards.

So feel free to exercise your vocal chords at the appropriate time.

THE FIRST AUSTRALIANS

Didgeridoo (live or taped)

As much as 60,000 years Before Present – that's Before Paterson: Banjo Paterson! – the first Australian songmen were Aboriginal bushmen and women. They gathered together, much like ourselves now, to share songs, stories and dances about the creation of the landscape and the wildlife, tales of the reasons for particular animal behaviour, and stories that explained their social and moral code.

These songs were accompanied by clapping boomerangs and sticks like these and in some areas by the didgeridoo.

Show tapping sticks, boomerang, didgeridoo

Their songs and instruments were derived from the Australian bush environment.



Tips for Guides

To help with the logistics of this activity, you will find a Table (following the script) which lists the themes and the songs in order of presentation, and song lyric sheets, to copy and distribute to the audience.



Script

THE COMING OF THE EUROPEANS

The European colonization of Australia began in 1788 with the establishment of a penal colony at Sydney Cove to accommodate convicts who could no longer be sent to America after the British lost the 'War of Independence'. They brought an entirely different kind of music, derived from English, Irish and Scottish traditional music and mixed with seamen's songs.

But the content of these songs was about the life of a convict at Botany Bay Settlement from 1788 and the Moreton Bay Colony from 1824. They depict an attitude to social injustices in the United Kingdom (Great Britain) and life in the new colony where the injustice often continued. The following songs are indicative of this period.

New songs from traditional music

- ▷ Maggie May
- ▷ Shores of Botany Bay
- ▷ Moreton Bay

THE PIONEER BUSHMEN AND WOMEN

When convict transportation stopped in the 1840s, there was an increasing number of free settlers and Australian-born children. These pioneering bushmen and women began to regard the new colony as 'home'.

The timber-getters, squatter graziers and farmers, and the shearers and drovers spent long periods alone in the bush. They grew to love the land, so when it came to socialising, the bushmen sang of their life on the land to the tunes of the music they had inherited from their homeland.

Their songs were of their trades and of the dubious pleasures of letting loose when spending time in the towns. They sang of the simple pleasures of the bush – a billy of tea and a flight of imagination.

Songs of work

- ▷ Ryebuck Shearer
- ▷ Lachlan Tigers

Songs of simple pleasures

- ▷ Billy of Tea
- ▷ Drover's Dream
- ▷ Clancy of the Overflow

Songs of raging

- ▷ Augathella Station
- ▷ Lazy Harry's

THE NEW AUSTRALIANS

The discovery of gold in the 1850s brought great changes to the colony – in wealth and population. Goldfields life increased the mateship of the workers – a feeling of comradeship that grew out of performing common work and confronting common conditions on the land, feelings that were also evident at the time of the convicts.

New wealth in the colony emphasised another element of the convict era – the inequality and injustice in the social system inherited from Europe.

Script

Some workers found consolation in bushranging and others in political agitation. This new land needed a new order – a national spirit was brewing. The following songs express these sentiments.

Songs of crime and passion and the Aboriginal resistance

- ▷ Spider By The Gwydir
- ▷ Poor Ned (1878)
- ▷ The Ballad of 1891
- ▷ Pigeon/Jundamurra

THE NEW NATION

In 1901, Australia became a nation – a federation of states. Ironically, our 'alternative' national anthem, *Waltzing Matilda*, celebrated the oppressed finding a dubious liberation.

Bush-based nationalism

- ▷ *Waltzing Matilda*

In 1914 the word was at war and Australia entered her first international crisis as a nation. This war, World War 2 (1939-1945) and the Vietnam war of the late 1960s heralded a number of songs about Australia's identity crisis in the field of international politics.

The twentieth century identity crisis

- ▷ *And The Band Played Waltzing Matilda*
- ▷ *I was Only Nineteen*

We began tonight by talking about our Australian Aboriginal bush songmen and women. These next few songs look at an issue that has haunted Australians since the time of the invasion – Aboriginal-white relations.

Songs for reconciliation

- ▷ *Carrington Cabaret*
- ▷ *HMAS*
- ▷ *From Little Things Big Things Grow*
- ▷ *I am Australian*

THE NEW FRONTIER

To conclude our musical look at Australia's heritage, we have a few songs about our natural heritage. These bush songs, with simple instruments, and sometimes simple tunes, have an Australian identity that is tied intrinsically to the landscape and our outdoor lifestyle. This is our heritage. If we don't preserve the natural environment of Australia, we lose more than our natural heritage. We lose the stuff from which our cultural identity has been born.

The last couple of songs are about that special place each one of us has somewhere in our Australian heart – whether we've realised it yet or not.

Celebrating our bush heritage

- ▷ *Way out West*
- ▷ *Sail the Nullarbor*

Remember folks! If you bugger the bush, you bugger our heritage.

TABLE

The Bush Heritage Song Celebration: Interpreting our heritage through bush songs

THE THEMES	THE SONGS	THE ALBUMS
THE FIRST AUSTRALIANS		
THE COMING OF THE EUROPEANS		
▷ <i>New songs from traditional music</i>	Maggie May Shores of Botany Bay Moreton Bay	traditional Bushwackers Band 'Collection' John Denver 'From the Sydney Opera House'
THE PIONEER BUSHMEN AND WOMEN		
▷ <i>Songs of work</i>	Ryebuck Shearer Lachlan Tigers	traditional Bushwackers Band 'Beneath the Southern Cross'
▷ <i>Songs of simple pleasures</i>	Billy of Tea The Drover's Dream Clancy of the Overflow	Bushwackers Band 'Collection' and 'Murrumbidgee' Bushwackers Band Songbook Bushwackers Band 'Collection'
▷ <i>Songs of raging</i>	Augathella Station Lazy Harry's	Bushwackers Band 'Murrumbidgee' Bushwackers Band 'Beneath the Southern Cross'
THE 'NEW' AUSTRALIANS		
▷ <i>Songs of crime and passion</i>	Spider by the Gwydir Poor Ned (1878) The Ballad of 1891 Pigeon/Jundamurra	Bushwackers Band 'Beneath the Southern Cross' Bushwackers Band 'Jubilee' and Redgum 'Caught in the Act' Bushwackers Band 'Faces in the Street' Paul Kelly and the Messengers 'So much water so close to home'
THE NEW NATION		
▷ <i>Bush-based nationalism</i>	Waltzing Matilda	Bushwackers Band 'Beneath the Southern Cross'
▷ <i>Songs of the twentieth century identity crisis</i>	And The Band Played Waltzing Matilda I was Only Nineteen	Bushwackers Band 'Beneath the Southern Cross' Redgum 'Caught in the Act'
▷ <i>Songs for reconciliation</i>	Carrington Cabaret HMAS From Little Things Big Things Grow I am Australian	Redgum 'If you don't fight you lose' Redgum 'If you don't fight you lose' Paul Kelly and the Messengers 'Comedy' Judith Durham/Russell Hitchcock
THE NEW FRONTIER		
▷ <i>Songs celebrating our bush heritage</i>	Way out West Sail the Nullarbor	James Reyne 'The Best of James Reyne' John Williamson 'Boomerang Cafe'

MAGGIE MAY

Oh gather round you sailor boys, and listen to my song,
And when you hear my tale you'll pity me;
I was a goddam fool, in the port of Liverpool,
The first time that I came home from sea.
I was paid off at the Hove from a trip to Sydney Cove,
Two pound ten a quarter was my pay;
I jingled of my tin ... I was very soon taken in
By a little girl they all call Maggie May.

Chorus

Oh, Maggie Maggie May, they have taken you away
To slave upon that cold Van Diemen's shore,
For you robbed so many sailors and dosed so many whalers,
You'll never cruise down Lime Street any more.

'Twas a damned unlucky day when I first met Maggie May
Cruising up and down old Canning Place;
She had a figure fine like a trimmer of the line,
And me being a sailor, I gave chase.
In the morning when I woke, stiff and sore and stony broke,
No shirt, trousers, waist-coat could I find.
The landlady said, "Sir, I can tell you where they are:
They'll be down in Stanley's hock-shop, number nine."

To the bobby on his beat at the corner of the street,
To him I went, to him I told my tale;
He asked, as if in doubt, "Does your mother know you're out?"
But agreed the lady ought to be in jail.
To the hock-shop I applied, but no trousers there I spied,
So the bobbies came and took that girl away;
The jury guilty found her of robbing a homeward-bounder,
And paid her passage out to Botany Bay.

SHORES OF BOTANY BAY

I'm on me way down to the quay
 Where the big ship now doth lay,
 To command a gang of navvies
 I was ordered to engage,
 And I thought I would stop in for a while
 Before I sailed away
 To take a trip, on an immigrant ship,
 To the shores of Botany Bay.

Chorus

Farewell to your bricks and mortar
 Farewell to your dirty lime
 Farewell to your gangway and your gang plank
 And to hell with your overtime-
 For the good ship Ragamuffin
 She's lying at the quay
 To take old Pat, with a shovel on his back
 To the shores of Botany Bay.

The best years of our lives we spend
 At working on the docks
 Building mighty wharves and quays
 Of earth and ballast rocks
 Our pensions keep our lives secure,
 But I'll not rue the day
 When I take a trip, on an immigrant ship,
 To the shores of Botany Bay.

The boss came out this morning
 And he said 'Why Pat, hello,
 If you do not mix the mortar quick
 Be sure you'll have to go.'
 Well of course he did insult me
 And I demanded all me pay,
 And I told him straight I was going to emigrate
 To the shores of Botany Bay.

And when I reach Australia
 I'll go and search for gold
 There's plenty there for digging up
 Or so I have been told,
 Or maybe I'll go back to me trade,
 Eight hundred bricks I'll lay
 For an eight-hour shift and an eight bob pay
 On the shores of Botany Bay.

MORETON BAY

One Sunday morning as I was walking,
By Brisbane waters I chanced to stray,
I heard a convict his fate bewailing
As on the sunny river bank he lay;
'I am a native of Erin's island
Transported now from my native shore,
They tore me from my aged parents
And from the maiden that I do adore.

'I've been a convict at Port Macquarie,
At Norfolk Island and Emu Plains,
At Castle Hill and cursed Toongabbie,
At all those settlements I've worked in chains;
But of all places of condemnation
And penal stations of New South Wales,
To Moreton Bay I have found no equal;
Excessive tyranny each day prevails.

'For three long years I was beastly treated
And heavy irons on my leg I wore;
My back with floggings was lacerated,
And often painted with my crimson gore.
And many a man from downright starvation
Lies mouldering now beneath the clay;
And Captain Logan he had us mangled
At the triangles of Moreton Bay.

'Like the Egyptians and ancient Hebrews
We were oppressed under Logan's yoke,
Till a native black lying there in ambush
Did deal our tyrant his mortal stroke.
My fellow prisoners, be exhilarated
That all such monsters such a death may find,
And when from bondage we are liberated,
Our former sufferings shall fade from mind.'

THE RYEBUCK SHEARER

Well I come from the south and my name is Field
And when my shears are properly steeled,
It's a hundred or more I have very often peeled,
And, of course, I'm a ryebuck shearer.

Chorus

If I don't shear a tally before I go
My shears and stones in the river I'll throw,
And I'll never open Sawbees or take another blow,
Till I prove I'm a ryebuck shearer.

There's a bloke on the board and I heard him say
That I couldn't shear a hundred sheep a day,
But one fine day mate, I'll show him the way
I'll prove I'm a ryebuck shearer.

Chorus

You ought to see our ringer, he's nothing but a farce
When the cobbler's coming up, he's always first to pass,
As for the shearing, he's more arse than class
And he'll never be a ryebuck shearer.

Chorus

There's a swaggie down the creek, his name is Jack
He rolled into town with a swag on his back;
He asked us for a job, said he needed a few bob
And he swears he's a ryebuck shearer.

Chorus

Yes, I'll make a splash, and I won't say when
I'll up off me arse and I'll into the pen
While the ringer's shearing eight, mate, I'll be shearing ten
And I'll prove I'm a ryebuck shearer.

Chorus

THE LACHLAN TIGERS

At his gate each shearer stood as the whistle loudly blew,
With eyebrows fixed and lips compressed the tigers all bent too;
You could hear the clicking of the shears as through the wool they glide,
You see a gun already turned, he's on the whipping side.

Chorus

A lot of Lachlan tigers it's plain to see we are,
Hark to our burly ringer as he loudly calls for tar;
'Tar here', calls one and quick the tar boy flies
'Sweep those locks away', another loudly cries.

The scene it is a lively one and ought to be admired,
There hasn't been a better board since Jacky Howe expired;
Along the board our gaffer walks his face all in a frown,
And passing by the ringer says, 'You watch my lad, keep down.'

Chorus

'For I must have their bellies off, and topknots too likewise,
My eye is quick so none of your tricks or from me you will fly,
Oh, curses on our gaffer, he's never on our side,
To shear a decent tally, boys, in vain I've often tried.

Chorus

I have a pair of Ward and Paine's that are both bright and new,
I'll rig them up and I'll let you see what I can really do!
For I've shorn on the Riverine where they shear 'em by the score
But such a terror as this to clip I never shore before.

Chorus

BILLY OF TEA

Chorus

You can talk of your whisky, talk of your beer,
There's something much nicer that's waiting us here,
It sits on the fire beneath the gum tree,
There's nothing much nicer than a billy of tea.

So fill up your tumbler as high as you can
And don't you dare tell me it's not the best plan,
You can let all your beer and your spirits go free -
I'll stick to my darling old billy of tea.

Chorus

I rise in the morning as soon as it's light
And go to the nose bag to see it's alright,
That the ants on the sugar no mortgage have got
And straight away sling my old black billy-pot.

Chorus

And while it is boiling the horses I seek
And follow them down, as far as the creek,
I take off their hobbles and let them run free
Then haste to tuck into my billy of tea.

Chorus

And at night when I camp if the day has been warm
I give to my horses their tucker of corn,
From the two in the pole to the one in the lead
A billy for each holds a comfortable feed.

Chorus

Then the fire I make and the water I get
And corned beef and damper, in order, I set,
But I don't touch the grub though so hungry I be -
I wait till it's ready - billy of tea.

Chorus

THE DROVER'S DREAM

One night while droving sheep, my companions lay asleep,
 There was not a star to 'luminate the sky,
 I was dreaming I suppose, for my eyes were partly closed,
 When a very strange procession passed me by.
 First there came a kangaroo, with his swag of blankets blue,
 A dingo ran beside him as a mate;
 They were travelling mighty fast,
 But they shouted as they passed:
 'We'll have to jog along, it's getting late.'

The pelican and the crane they came in from off the plain
 To amuse the company with a Highland fling;
 The dear old bandicoot played the tune upon his flute,
 And the native bears sat around them in a ring.
 The brolga and the crow sang us songs of long ago,
 The frill-necked lizard listened with a smile,
 And the emu standing near
 With his claw up to his ear
 Said, 'That's the funniest thing I've heard for quite a while.'

The frogs from out the swamp where the atmosphere is damp
 Came bounding in and sat upon some stones;
 They all unrolled their swags and produced from little bags
 The violin, the banjo and the bones.
 The goanna and the snake and the adder, wide awake
 With an alligator danced the Soldier's Joy;
 In the spreading silky oak
 The jackass cracked a joke,
 And the magpie sang The Wild Colonial Boy.

Some wombats darted out from the ti-tree all about,
 And performed a set of Lancers very well;
 The parrot green and blue gave the orchestra its cue
 To strike up the Old Log Cabin in the Dell.
 I was dreaming I suppose of these entertaining shows,
 But it never crossed my mind I was asleep,
 Till the boss beneath the cart
 Woke me up with such a start
 Yellin' 'Dreamy, where the hell are all the sheep?'

CLANCY OF THE OVERFLOW

I had written him a letter which I had, for want of better
Knowledge, sent to where I met him down the Lachlan, years ago;
He was shearing when I knew him, so I sent the letter to him,
Just on spec, addressed as follows, 'Clancy of The Overflow.'

And an answer came directed in a writing unexpected
(And I think the same was written with a thumb-nail dipped in tar):
'Twas his shearing mate who wrote it, and verbatim I will quote it:
'Clancy's gone to Queensland droving, and we don't know where he are.'

In my wild erratic fancy visions come to me of Clancy
Gone a-droving 'down the Cooper' where the Western drovers go;
As the stock are slowly stringing, Clancy rides behind them singing,
For the drover's life has pleasures that the townfolk never know.

And the bush has friends to meet him, and their kindly voices greet him
In the murmur of the breezes and the river on its bars,
And he sees the vision splendid of the sunlit plains extended,
And at night the wondrous glory of the everlasting stars.

I am sitting in my dingy little office, where a stingy
Ray of sunlight struggles feebly down between the houses tall,
And the foetid air and gritty of the dusty, dirty city,
Through the open window floating, spreads its foulness over all.

And in place of lowing cattle. I can hear the fiendish rattle
Of the tramways and the buses making hurry down the street;
And the language uninviting of the gutter children fighting
Comes fitfully and faintly through the ceaseless tramp of feet

And the hurrying people daunt me, and their pallid faces haunt me
As they shoulder one another in their rush and nervous haste,
With their eager eyes and greedy, and their stunted forms and weedy,
For townfolk have no time to grow, they have no time to waste.

And I somehow rather fancy that I'd like to change with Clancy,
Like to take a turn at droving where the seasons come and go,
While he faced the round eternal of the cash-book and the journal -
But I doubt he'd suit the office, Clancy of The Overflow.

A.B. ("Banjo") Paterson

AUGATHELLA STATION

Farewell and adieu to you Brisbane ladies,
Farewell and adieu to you girls of Toowong.
We've sold all our cattle and it's northwards we'll travel
But we hope we will see you again before long.

Chorus

We'll rant and we'll roar like true Queensland drovers,
Rant and we'll roar as onwards we push,
Until we return to the Augathella Station
It's flamin' dry goin' through the old Queensland bush.

The first camp we make will be down by the river,
We'll off with our swags, and lay the place flat.
We'll bed down the herd and before the sun rises,
We'll move 'em again and we'll cross the black butt.

Chorus

Mount your horses, we'll ride into town, boys,
We'll stop at the pub, and drink the place dry.
We'll spend all our money on the shanty town women
And as dawn is a-breaking, away we will ride.

Chorus

The girls are so pretty, they look so enchanting,
Bewitching, graceful, they join in the fun,
With the waltz and the polka and all types of dancing,
To the old concertina of Jack Smith the Don.

Chorus

So fill up your glasses, let's drink to our lasses,
Let's sing the last chorus, sing farewell to all
And if you return to the Augathella Station
Why don't you come by there, and pay us a call?

Chorus

LAZY HARRY'S

We started out from Roto when the sheds had all cut out,
And with whips and whips of rhino that we meant to push about,
With a three spot cheque between us and Sydney in our eye
But we camped at Lazy Harry's on the road to Gundagai.

Chorus

As we camped at Lazy Harry's on the road to Gundagai,
The road to Gundagai, not five miles from Gundagai,
Yes, we camped at Lazy Harry's on the road to Gundagai.

We crossed the Murrumbidgee near old Yanko in a week,
We passed through old Narrandera and crossed the Burnett creek,
And we never stopped at Wagga for we'd Sydney in our eye
And we camped at Lazy Harry's on the road to Gundagai.

Chorus

We threw our flamin' swags off, and marched into the bar,
We ordered rum and raspberry, and a shilling each cigar,
The girl that served the poison, she winked at me so sly
So we camped at Lazy Harry's on the road to Gundagai.

Chorus

Well I seen lots of girls, me boys, and I've drunk lots of beer
I've met with some of both, me lads, that left me feeling queer,
But for beer to knock you sideways and girls to make you sigh
You should camp at Lazy Harry's on the road to Gundagai.

Chorus

In a week our spree was over and our cheque was all knocked down
We shouldered our matildas and headed out of town,
The girls stood us a nobbler, as we sadly waved goodbye
And we tramped from Lazy Harry's on the road to Gundagai.

Last chorus

And we tramped from Lazy Harry's on the road to Gundagai,
The road to Gundagai, not five miles from Gundagai,
Yes, we tramped from Lazy Harry's on the road to Gundagai

THE SPIDER BY THE GWYDIR

By the sluggish river Gwydir
There lived a wicked red-back spider,
And he was just about as vicious as could be.
And the place that he was camped in
Was a rusty Jones's jam tin,
In a paddock, by the showgrounds, at Moree.

Now near him, there lay a shearer snoozin' –
He'd been on beer and boozin',
All the night before and half the previous day.
And the kookin' of the kookas,
And the noise of yer showtime spruikers,
Failed to rouse him from the trance in which he lay.

Now, there came a crafty spieler,
With a dainty little sheila,
They were out gathering wood to make a fire.
Said the spieler, 'There's a boozer,
And he's gonna be a loser,
If he isn't, you can christen me a liar.

Stick around and keep knit, Honey,
While I fan this mug for money,
And we'll have some dainty luxuries for tea.'
But she said, 'Don't be silly!
You go home and boil the billy –
You can safely leave this mug to little old me.'

So she circled ever nearer,
Till she reached the dopey shearer,
With his pockets bulgin', half asleep and snug;
And she never saw the spider,
Who was creepin' close behind her,
For her eye was on the money and the mug.

Now this spider, he needed dinner,
He'd been daily growin' thinner,
He was hungry and for a feed did yearn.
And as she reached the shearer's pocket,
He just darted like a rocket,
And he bit the spieler sheila on the stern.

Now the sheila started squealin',
And her clothes began unpeelin',
To hear her cries, they'd make ya feel forlorn:
One hand to the bite was pressin',
While the other was undressin',
And she reached the camp the same as she was born.

Now the shearer, pale and haggard, woke,
And back to town he staggered,
Where he caught the train and he gave the booze a rest.
And he'll never know that spider,
That was camped there by the Gwydir,
Had saved him sixty smackers of the best.

POOR NED

Chorus

Poor Ned, you're better off dead
At least you'll get some peace of mind
You're out on the track
They're right on your back
Boy, they're going to hang you high.

1878 was the year I remember so well
They put my father in an early grave
And slung my mother in gaol
I don't know what's right or wrong
But they hung Christ on nails
Six kids at home and two still on the breast
But they didn't even give her bail.

You know I wrote a letter 'bout Stringybark Creek
So they would understand
I might be a bushranger but I'm not
A murdering man
I didn't want to shoot Kennedy
Or that copper Loonegan
he alone could have saved his life
By throwing down his gun.

You know they took Ned Kelly
And they hung him in the Melbourne Gaol
He fought so very bravely
Dressed in iron mail
But no man single-handed
Can hope to break the bars.
It's a thousand like Ned Kelly
Who'll hoist the flag of stars.
We sing,
repeat chorus

Ned Kelly's Tunes (Poor Ned: The Ballad of Ned Kelly)

Words and Music by Roger Corbett/Dobe Newton/Melanie Williamson

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THE BALLAD OF 1891

The price of wool was falling in 1891;
 The men who owned the acres saw something must be done;
 'We'll break the shearers' union and show we're master still,
 And they'll take the terms we give them or we'll find the men who will.

From Clermont to Barcaldine the shearers' camps were full,
 Ten thousand blades were ready to strip the greasy wool,
 When through the west like thunder rang out the union's call:
 'The sheds'll be shore union or they won't be shorn at all'

O, Billy Lane was with them- his words were like a flame;
 The flag of blue above them, they spoke Eureka's name.
 'Tomorrow,' said the squatters, 'you'll find it does not pay –
 We're bringing up free labourers to get the clip away!'

'Tomorrow,' said the shearers, 'they may not be so keen –
 We can mount three thousand horsemen to show them what we mean.'³
 'Then we'll pack the west with troopers from Bourke to Charters Towers
 You can have your fill of speeches, but the final strength is ours!'

'Be damned to your six-shooters, your troopers and police –
 The sheep are getting heavy, the burr is in the fleece!'
 'Then if Nordenfeldt and Gatling won't bring you to your knees,
 We'll find a law,' the squatters said, 'that's made for times like these'.

To trial at Rockhampton the fourteen men were brought;
 The Judge had got his orders; the squatters owned the court –
 But for every one was sentenced, a thousand won't forget
 When they go a man for striking, it's a rich man's country yet!

The Ballad of 1891 Words by Helen Palmer/Music Doreen Bridges (Jacobs)

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Authentic version available from Solidarity Choir c/- Miguel Heatwole 8 Pritchard St. Annandale NSW 2030

PIGEON/JUNDAMURRA

My name is Officer O'Malley
My job is hunting Pigeon down
I don't like this kind of work much
I'm sick of sleeping on the ground
Pigeon – that's the name we gave him
Pigeon used to be so tame
'Til one day he turned against his master
Killed him, broke his brother's chains.

Now Pigeon could track the Holy Spirit
But he don't leave no tracks at all
I've been running round in circles
I've been feeling like a fool
Pigeon - that's the name we gave him
But he's got another name
It's spreading all across the valleys
Jundamurra – like a burning flame.

One time we had him in a gully
One time we had him in a cave
Each time we closed in on our quarry
He disappeared like smoke into a haze.

Pigeon – that's the name we gave him
Pigeon – putting me to shame
I do this job because I have to
I don't say that he's to blame
Jundamurra! – how I hate that name.

WALTZING MATILDA

Adapted from A.B. ('Banjo') Paterson

Once a jolly swagman camped by a billabong,
Under the shade of a coolibah tree,
And he sang as he sat and watched his billy boiling,
Who'll come a-Waltzing Matilda with me?

Chorus

Waltzing Matilda, Matilda my darling
Who'll come a-waltzing Matilda with me,
Waltzing Matilda and leading a water bag
Who'll come a-waltzing Matilda with me?

Along came a jumbuck and he drank from the billabong,
Down jumped the swagman and he grabbed him with glee,
And he sang as he shoved that jumbuck in his tucker bag,
You'll come a-waltzing Matilda with me.

Chorus

Down came the squatter mounted on his thoroughbred;
Down came the troopers, one, two, three,
Whose is the jumbuck you've got in your tucker bag?
You'll come a-waltzing Matilda with me.

Chorus

Well up jumped the swagman and he leapt into the billabong
He drowned himself by the coolibah tree,
And his ghost may be heard as you pass by the billabong,
Who'll come a-waltzing Matilda with me?

Chorus

AND THE BAND PLAYED WALTZING MATILDA.

When I was a young man I carried a pack
And I lived the free life of a rover,
From the Murray's green banks to the dusty outback,
I waltzed my matilda all over.
Then in 1915, the country said, 'Son,
There's no time for rovin', there's work to be done,'
And they gave me a tin hat, and gave me a gun,
And they sent me away to the war.
And the band played Waltzing Matilda,
And our ship pulled away from the quay
And amidst all the cheers, the flag-waving and tears
We sailed off for Gallipoli.

How well I remember that terrible day
When our blood stained the sand and the water,
And how in that hell that they called Suvla Bay,
We were butchered like lambs at the slaughter.
Johnny Turk he was waiting, he'd primed himself well,
He showered us with bullets, and rained us with shell,
And in ten minutes flat, he'd blown us to hell:
Nearly blew us right back to Australia.
And the band play Waltzing Matilda,
As we stopped to bury the slain.
We buried ours and the Turks buried theirs,
Then we started all over again.

They collected the crippled, the wounded and maimed
And they shipped us back home to Australia,
The armless, the legless, the blind and insane
All the brave wounded heroes of Sulva.
And when our ship pulled into Circular Quay,
And I looked at the place where my legs used to be,
I thanked Christ there was nobody waiting for me –
To grieve, and to mourn and to pity.
And the band played Waltzing Matilda
As they carried us down the gangway,
But nobody cheered, they just stood there and stared –
And they turned their faces away.

So now every April I sit on my porch,
And I watch the parade pass before me,
And I see my old comrades how proudly they march,
Reliving old dreams and past glories.
But the old men march slowly their bones stiff and sore –
Tired old men from a tired old war,
And the young people ask what are they marching for,
And I ask myself the same question.
But the band played Waltzing Matilda
And the old men they answer the call,
But year by year those old men disappear
Soon no one will march there at all.

And The Band Played Waltzing Matilda Eric Bogle
© 1980 Larrikin Music Publishing
Original Version available from Festival Records
CD 'Now I'm Easy' : LRF 041 Eric Bogle

I WAS ONLY 19

Mum and Dad and Denny saw the passing out parade at Pukapunyal
It was a long march from cadets
Sixth battalion was the next to tour
and it was me who drew the card
We did Canungra and Shoalwater before we left

And Townsville lined the footpaths as we marched down to the Quay
This clipping from the paper shows us young and strong and clean
And there's me in me slouch hat, with me SLR and greens
God help me...I was only nineteen

From Vung Tau riding Chinooks
to the dust of Nui Dat
I've been in and out of choppers now for months
We made our tents a home,
VB and pin ups on the lockers
and an agent orange sunset through the scrub

And can you tell me doctor
why I still can't get to sleep
And night times just a jungle dark
and a barking M 16
And what's this rash that comes and goes
Can you tell what it means?
God help me...I was only nineteen

A four week operation when each step
could mean your last one on two legs
it was a war within yourself
But you wouldn't let your mates down
till they had you dusted off
So you closed your eyes and thought about something else

And then someone yelled out "Contact!"
and the bloke behind me swore
We hooked in there for hours
then a God almighty roar
And Frankie kicked a mine the day that mankind kicked the moon
God help me...he was goin' home in June

I can still see Frankie
drinkin' tinnies in the Grand Hotel
on a 36 hour rec. leave in Vung Tau
And I can still see Frankie lying screaming in the jungle
til the morphine came and killed the bloody row

And the ANZAC legends didn't mention mud and blood and tears
And the stories that my father told me
never seemed quite real
I caught some pieces in m'back that I didn't even feel
God help me...I was only nineteen

And can you tell me doctor
why I still can't get to sleep
And why the Channel Seven chopper chills me to my feet
And what's this rash that comes and goes
can you tell what it means?
God help me...I was only nineteen

CARRINGTON CABARET

All you proud white Australians wherever you are
With a beer in your hand and your elbow on the bar
All you people from Darwin to the south
In your blue faded jeans with a joint in your mouth
You young sophisticates making the scene
At the Lion hotel in your rolled up jeans
There's something going on and we're all implied
Last night another piccaninny died.

In the dirt filled gutters on the cold concrete
At the night-club end of Hindley Street
Sit dusky young ladies learning the rules
From drunks and traps and the hard-knock school
Down at the port there's a sick black mum
She rings for a taxi but the taxi won't come.

It's probably too painful for us to understand
But two hundred years ago we over-ran their land
Dreamtime's just a nightmare now, an alcoholic sleep
Australia, land of things to do, have you got time to weep?

Our great free land of fire and rain
Of white man's wealth and black man's pain
You've got to be white if you want to get in
It's the black man's country but the white man's sin
It's rather distasteful for civilised man
So we hide them away in Arnhem Land
Shake your head and say that's that
As you kick away the bottles of Pinky Flat.

Carrington Cabaret Words and Music by John Schumann

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CD 'If You Don't Fight You Lose.' Redgum*

HMAS

Here I am again in the ship's post office
I want to send a telegram
Send it to the captain
Asking where the hell I am.

I've been on this luxury cruise
For twenty-five years or more
And I've just begun to wonder
Where we're headed for.

And the band keeps playing American songs from 1973
We're getting wise to the officers' lies
That we've even got a country
You say we're independent
And we've got the right to choose
Well we're sick of doing nothing
We'd like some work to do.

The swimming pools, the cocktail parties
You keep us plied with drink
But when we cruised through South East Asia
It made us stop and think.

We never take on passengers
Though we seem to have lots of room
And I can't escape the feeling, captain
That this is a floating tomb.

Some of us have calculated
That we must be short of oil
Someone mentioned fission
And blood began to boil.

The passengers are restless, captain
This is how they feel
Angry at how it came to be you
Who sits behind the wheel.

And the band keeps playing the Imperial Waltz
From far across the sea
It's not a long way from discontent
To open mutiny.
You say we're independent
And we've got the right to choose
Well, we're sick of being passengers
We've got some work to do.

FROM LITTLE THINGS BIG THINGS GROW

Gather round people, I'll tell you a story
An eight year long story of power and pride;
British Lord Vestey and Vincent Lingiarri
were opposite men on opposite sides.
Vestey was fat with money and muscle
Beef was his business, broad was his door;
Vincent was lean and spoke very little
He had no bank balance, hard dirt was his floor.

Chorus

From little things big things grow
From little things big things grow.

Gurindji were working for nothing but rations
where once they had gathered the wealth of the land;
Daily the pressure got tighter and tighter
Gurindji decided they must make a stand.
They picked up their swags and started off walking
At Wattle Creek they sat themselves down;
Now it don't sound like much but it sure got tongues talking
Back at the homestead and then in the town.

Chorus

Vestey man said I'll double your wages
Seven quid a week you'll have in your hand
Vincent said uhuh we're not talking about wages
We're sitting right here till we get our land
Vestey man roared, Vestey man thundered
You don't stand the chance of a cinder in snow
Vince said if we fall, others are rising.

Chorus

Then Vincent Lingiarri boarded an aeroplane
Landed in Sydney, big city of lights
And daily he went round softly speaking his story
To all kinds of men from all walks of life
And Vincent sat down with big politicians
This affair they told him is a matter of state;
Let us sort it out, your people are hungry
Vincent said, No thanks, we know how to wait.

Chorus

Then Vincent Lingiarri returned in an aeroplane
Back to his country once more to sit down;
And he told his people let the stars keep on turning
We have friends in the south, in the cities and towns.
Eight years went by, eight long years of waiting
Till one day a tall stranger appeared in the land;
And he came with lawyers and he came with great ceremony
And through Vincent's fingers poured a handful of sand.

Chorus

That was the story of Vincent Lingiarri
But this is the story of something much more;
How power and privilege can not move a people
Who know where they stand and stand in the law.

Chorus

*From Little Things Big Things Grow Words and Music by Kev. Carmody/Paul Kelly
© 1993 Larrikin Music Publishing For Kev. Carmody 50%
Original version available from Festival Records
CD 'Bloodlines' : D30954
© Mushroom Music 50%
CD 'Comedy'. Paul Kelly and the Messengers*

I AM AUSTRALIAN

I came upon a prison ship
 Bowed down by iron chains
 I fought the land, endured the lash
 And waited for the rains
 I'm a settler, I'm a farmer's wife
 On a dry and barren run
 a convict then a freeman
 I became Australian

I'm the daughter of a digger
 Who sought the mother lode
 The girl became a woman
 on the long and dusty road
 I'm a child of the Depression
 I saw the good times come
 I'm a bushie, I'm a battler
 I am Australian

Chorus

We are one, but we are many
 And from all the lands
 on Earth we come
 We'll share a dream
 and sing with one voice
 I am
 You are
 We are Australian

I'm a teller of stories
 I'm a singer of songs
 I am Albert Namatjira
 And I paint the ghostly gums
 I'm Clancy on his horse
 I'm Ned Kelly on the run
 I'm the one who waltzed Matilda
 I am Australian

I'm the hot wind from the desert
 I'm the black soil of the plains
 I'm the mountains and the valleys
 I'm the drought and flooding rains
 I am the rock, I am the sky
 The rivers when they run
 The spirit of this great land
 I am Australian

Chorus

I came from the Dreaming
 from the dusty red soil plains
 I am the ancient heart
 The keeper of the flame
 I stood upon the rocky shore
 I watched the tall ships come
 For forty thousand years I've been
 The first Australian

Chorus

Repeat Chorus

I am
 You are
 We are Australian

I am Australian Written by Dobe Newton/ Bruce Woodley
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WAY OUT WEST

Way out west where the rain don't fall
Got a job with a company drilling for oil,
Just to make some change,
Living and working on the land.

I quit my job and I left my wife
I headed out west for a brand new life
Just to get away,
Living and working on the land.

The work is hard but the pay is good
And I'd take me a rest if only I could,
'Cause it's hot out here,
Living and working on the land.

They give you a house made of fibro cement
You don't have no worries about payin' the rent,
Yeah, it's all so cheap
Living and working on the land.

Chorus

Oh what a change it's been
From working that nine to five
Oh how strange it seems,
At last I've got the feeling that I'm really alive.

Nothing much to do on a Saturday night
Get into some booze or maybe a fight,
'Cause it's tough out here,
Living and working on the land.

Way out west where the rain don't fall
Got a job with a company drilling for oil,
And I ain't gonna leave,
Living and working on the land.

Chorus

SAIL THE NULLARBOR

Now I could spend my holidays on videos galore
or lie on the beach getting sorry and sore
or I could sail the ocean see another foreign shore
Well, I took my little kelpie and sailed the Nullarbor.

And I saw the colour changes from Albany to Broome
a pair of white corellas singing out of tune
wildflowers in bloom
And I saw the rusty Hamersleys from a dusty Wittenoom.

And I saw the giant karris, oh
you couldn't paint the view
amazing what a cross-cut could do
I would have liked to be there before, wouldn't you?

And I learned about the whales and cried,
bloody thousands died,
but they are swimming back to sing
I bet you never heard a more beautiful thing.

And through the Swan Valley there's banksias
and warriors making a stand
Yeah, look out for blackboys
They're guardians protecting this dear old land.

Spinifex and snappy gums
hazy green blue grey
you gotta go that way
There's nearly half Australia over there in W.A.

Yeah, I saw the colour changes from Albany to Broome
A pair of white corellas singing out of tune
wildflowers in bloom
and I saw the rusty Hamersleys from a dusty Wittenoom.

Now you could spend your holidays on videos
or lie on the beach getting sore
or you could sail the ocean
Why don't you take your best mate
and sail the Nullarbor.
Why don't you take your best mate
and sail the Nullarbor. Hey!

BUSH SURVIVAL

TOPIC

Aboriginal culture; Management issues

THEME/MESSAGE

The bush is a living museum of the natural resources used by people in the past.
Live lightly on the land to protect our heritage.

DESIGN TECHNIQUE

Problem solving activity

THE EXPERIENCE

Consider the challenge of bush survival through a group discussion of needs, observation of local resources and enquiry into possible sources of food, shelter and tools. Experience the ingenuity of the skills of Aboriginal bushmen and women.

AUDIENCE

Adults; Teens

OBJECTIVES

Understand the concept of basic human needs.
Experience the challenge of living off the land.
Develop problem solving skills – observation, hypothesis, enquiry, research, evaluation.
Identify some bush tucker and bush tool resources.
Appreciate living lightly on the land and the value of a minimal impact lifestyle.

OUTLINE

Introduce concept of basic human needs for food, water, shelter, clothing, fire and companions. Ask how we meet these needs today.
Form groups of two to five to discuss basic needs and how each group will find the resources it needs.
Regroup and discuss outcomes: each group shares one need and other groups add additional items.
Guided walk with activities focused on food, shelter and clothing, fire and lifestyle, and a demonstration of Aboriginal tools from the bush.
Conclude with message to live lightly on the land.

SITE

Bush area, ideally where Guide has some knowledge of Aboriginal bush survival skills and resources

TIME LENGTH

90 minutes

TIME OF DAY

Daytime

PROPS

'Bush Survival Chart: Living Lightly on the Land' activity sheets for each group
pencil, eraser and clipboard for each group
completed sheet for Guide
tapping sticks
bag of tools, for example, digging stick, stone flakes, coolamon (wooden bowl), string bag, grinding stone
bush tucker plants (for example, seeds, fruits, 'roo hide, sinew, plant fibre) and photos or line drawings to identify them (optional)
trade items, for example, ochre, shells
magnifying glasses, fire stick drills, tinder for each group

PROMOTION

Come and discover the bushcraft and survival secrets of the local Aboriginal people. Join us in this problem solving activity – it may save your life.

Script



The basic human needs of people using this region today are the same as those of the traditional Aboriginal people. People need food, water, shelter and fire, clothing and companions.

How are you fulfilling these basic needs here today? Which of your needs, if any, are provided by the natural resources of this area?

Today we most often purchase these goods and services from other people who produce them from the land. In tribal times, people were much closer to the resources of the land. Each community had to provide for nearly all of their needs, although quite a few non-perishable things were traded for with other tribal communities.

Let's see how many basic needs we could meet ourselves from the local natural resources and which ones we would have to trade for.

We will form into groups of two to five to discuss each basic need. Use this 'Bush Survival Chart' to help solve the problems of meeting your needs for survival on the land. I think you will find that it is a lot more complex than you expect.

Form groups, and get them to nominate a scribe. Distribute Bush Survival Charts, pencil, eraser and clipboard to each scribe.

We are going to take a short walk and each group will try to find the resources it needs to survive. The idea is that your scribe will jot down your group's ideas on the Bush Survival Charts.

Remember the five main needs – food, water, shelter, fire and clothing? They can be met in the local environment or by travel and trade.

So, first on your walk, look for the foods you could collect from the natural environment. How would you get these foods? What tools do you need to collect, prepare and eat them? What could you manufacture these tools from?



BUSH SURVIVAL CHART: LIVING LIGHTLY ON THE LAND

BASIC HUMAN NEEDS	HOW CAN THIS NEED BE MET	WHAT TOOLS ARE REQUIRED TO OBTAIN THIS RESOURCE?	WHAT TOOLS ARE REQUIRED TO PREPARE THIS RESOURCE?	HOW CAN THESE TOOLS BE OBTAINED?
FOOD				
WATER				
SHELTER				
FIRE				
CLOTHING				

Script

Describe how you would do it. What would you do once you had used up the supply of foods in a particular area?

Group discussion

Now, what about water, the liquid of life? We need water every day. Where will you find it and how will you collect and carry it?

Group discussion

Next, look for what you could use to construct a shelter. What tools would you need? Remember, you would have to make the tools, too. Where would you get them?

Find a place to build your shelter and describe why you chose that spot.

What could you use to stay warm and protect you from sun, rain and wind? Where would you get these materials and what tools might be required?

Group discussion

Yes, fire was very important in the traditional Aboriginal lifestyle for cooking, warmth, tool manufacture and as a tool itself for obtaining food.

How could you start a fire and keep it going if you had no matches in the bush?

Possible responses: glass, magnifying glass, rubbing sticks, flint, lightning, fire stick (pandanus) or fire cone (banksia).

Can you think of ways to use fire to obtain and prepare food?

Possible responses: smoke out bees, bats, birds, possums; flush animals out from forest understorey; burn hair off animal hides; crack open shellfish

Now that we have considered food, water, shelter, fire and clothing, and the tools we would need to get them, what are the restrictions or problems we might encounter in the traditional lifestyle of an Aborigine?

Possible responses: transporting water, fire and shelter; storing food; unobtainable items such as stone, shells, resins and fibres

What is not available here that you would need to trade for with other Aboriginal communities? What would you use for trade?

Group discussion

OK. Everyone has their Bush Survival Chart? Off you go for about fifteen minutes in the bush, working out how your group will survive, and then we'll regroup back here and share our findings. I'll call you back by tapping these Aboriginal clap sticks.

Groups disperse and discuss survival needs. Guide mingles and talks with groups.

Guide calls groups together with clap sticks.

Right, now we can share what we have discovered about survival. Group 1, could you tell us what you have jotted down about food?

Group 1 responds.

That's great. Did any of the rest of you notice any food items not mentioned by Group 1?

Other groups respond.

Well, that gives us an idea about food. Group 2, could you share your notes on what there is to drink around here?

Group 2 responds.

Yes, terrific. Do the rest of you have anything to add to that?

Script

Other groups respond.

Now, what about shelter? Group 3, what did you decide about shelter?

Group 3 responds.

We are going well. What else did you other groups notice?

Other groups respond.

Now let's look at fire. Group 4, what do you have in your notes about fire?

Group 4 responds.

Possible responses: for warmth (so it is part of shelter); for flushing game; for encouraging new plant growth; cooking and manufacturing tools (so it is part of food)

Very good. Any other ideas from your groups?

And what about clothing? Group 5, tell us your ideas on clothing.

Group 5 responds.

Not so easy, is it? Do any of you other groups have more to share about clothing?

Other groups respond.

So, did any group decide it could survive here without trade? No? Group 1, how about telling us your ideas on trade.

Group 1 responds.

And what else did you other groups come up with when you were thinking about trade?

Other groups respond.

So it looks like survival isn't as easy as we thought. Let's take a look at some of the resources used by Aborigines from this region and some of the items they manufactured.

Guide passes around digging stick, stone flakes, coolamon (bowl), string bag, grinding stone, ochre, seeds, fruits, 'roo hide, sinew, plant fibre.

Fire was really important to our survival. We use it to meet our need for shelter and for food. Let's try two ways to start a fire – with a magnifying glass and by rubbing sticks.

Guide hands out props.

How would we do it?

Guide explains and demonstrates technique.

Hold the magnifying glass about 2 to 6 cm from a dry leaf so the sunlight passes through it to create an intense ring of light. On a sunny day, the leaf should begin to smoulder after a few minutes.

Let's try it with a wooden drill like this stalk from the balga or grass tree, and this dry, cracked branch to bore into. The crack provides a start for the drill's point and a place to put some dry dung or zamia fluff which will ignite because of the heat from the drilling.

Now hold the drill between your palms and rub your palms back and forth to rotate the drill. By pressing hard downwards, your hands will naturally move down the drill. As your hands get painful and tired, move them quickly up the drill and start rotating it again.

Script

Group tries to start fires using the two techniques.

And that's not easy, either, is it? It takes a lot of practice to start a fire. But the materials to survive are still all around us in the bush. The bush is a living museum of traditional Aboriginal resources. Just look around you at the foundation of our Aboriginal cultural heritage.

The bush can also renew our awareness of our relationship and dependence on the land and on one another – regardless of our ethnic origins or our beliefs. Preserving these natural places protects not only our natural heritage but also our Aboriginal cultural heritage.

Please take care of this environment so we can all continue to enjoy its rich natural and cultural values. Let's live lightly on the land!

Guide collects props.



FEATHERED FOLLIES

(BIRD WATCHING)

TOPIC

Animals (birds)

THEME/MESSAGE

Bird watching is easy and enjoyable.

DESIGN TECHNIQUE

Wildlife observation activity

THE EXPERIENCE

Participate in bird watching activities including use of field guides, binoculars and bird identification.

AUDIENCE

Adults; Family; Teens

Maximum: 20 (requires a pair of binoculars for every two or three participants)

OBJECTIVES

Knowledge of bird watching techniques and equipment.

Be able to apply bird watching techniques: using binoculars, field guide; best time and place to watch birds.

Understand the bird identification process (size, shape, legs, beak, colour patterns, call, behaviour).

Appreciate birds, their behaviour and habitat and the fun of bird watching.

OUTLINE

Introduce bird watching technique.

Demonstrate use of binoculars.

Demonstrate use of field guides by comparing a bird in three different books to see alternative styles of presentation.

Demonstrate bird squeaker and mouthing sounds to call up birds.

Describe bird watching and identification processes.

Participants apply the technique in groups of two.

Discussion and conclusion with message that bird watching is easy and enjoyable.

SITE

Quiet bushland area, preferably near water or flowering plants

TIME LENGTH

90 minutes

TIME OF DAY

Preferably early morning to avoid heat of the day when birds are not so active.

PROPS

bird lists with illustrations of what might be seen locally

field guides (Pizzey, Slater, Simpson and Day)

bird squeaker

binoculars for every two or three participants

local bird feather

PROMOTION

Come along and learn how to go bird watching and discover the local birdlife. Bring binoculars and a bird field guide if you have them, and wear comfortable clothing. You will learn some new ways of looking at birds and find out that bird watching is easy and enjoyable.

Script



Welcome to our bird watching activity. We are going to learn how to make bird watching and bird identification easy and we are going to give it a go. I'm sure you will enjoy yourselves. But first a bit about birds.

There are over 700 bird species recorded in Australia. Over 400 of these are found in Western Australia. In any good bit of bush you should be able to see between 25 and 50 different kinds of birds in a day. That is a lot of birds.

There are five key things to think about when identifying birds:

- ▷ size;
- ▷ shape;
- ▷ features, especially beaks and legs;
- ▷ colour patterns; and
- ▷ the bird's call.

SIZE

Identifying birds is easier when you know that there are only about 45 key bird shapes and these can be sorted into three size categories: large, medium and small.

The size comparisons are helpful because size itself seems to vary according to how close you are to the bird and the magnification factor of your binoculars. Large is about the size of a magpie or bigger; medium is the size of a honeyeater, and small is the size of a finch.



Script

SHAPE

Shape is the best key to identification. How many different bird shapes do you already know?

Possible group responses: parrot; bird of prey; pigeon; honeyeater; finch; quail; kingfisher; little brown birds; waders; herons and egrets; gulls; terns; mound building birds.

Isn't it surprising how many we know. By thumbing through a bird field guide you can develop your understanding of these key shapes.

Noticing the shape of a bird gives us an idea of where to start looking in the field guide. For instance, see that bird over there. It looks like a parrot which is a start, but when we look in our field guide there are over 50 species to choose from!

FEATURES

So now we need to look for features. Beaks and legs are the first things to check because they are solid and distinctive. Often they define our bird shape.

Then we can look at colour patterns. Colour changes in the light and the colours used by the artists in the field guides may not match the colours of the wild birds. This is because artists draw from museum specimens in controlled light environments. Let's look at our parrot in the three different field guides and compare the drawings. Wow! Some differences here, hey?

Compare field guides and point out differences in colour.

Now look at this feather. If I hold it up to the light, the colour changes.

Pass feather around.

So be careful with colour as an identifier.

CALL

Once you have done the hard work of keying out your bird, you can check what the field guides say about its call. All birds make sounds. Most have a number of distinctive calls and some have songs.

Let's see what our field guides say about our parrot over there.

Read out several different call descriptions.

Wow! These descriptions vary quite a bit. You have to get to know a bird before you can identify it by call. The call descriptions at least get us thinking about the sound pattern.

Here is a bird squeaker that can be used to call up inquisitive birds from out of the bushes. Let's try it.

Demonstrate squeaker sounds.

By replicating the pattern of the bird's call you can learn to recognise the species you are stalking by their call. You can also call up birds and learn call sound patterns by pursing your lips and sucking, like this.

Demonstrate the sound.

Give it a try. It's a cheap way to meet birds in the bush!

BIRD BEHAVIOUR

Bird watchers get to know the behaviour of specific birds as well as their calls. Experienced birders will tell you that after stalking a bird through dense bush in hot conditions, being bitten by ticks and mosquitoes, and pestered by flies, they don't easily forget the bird's call, flight pattern and preferred habitat! That is why it is a good idea for beginners to go out in groups with experienced bird watchers so they can learn fast without the pain.

LOCAL KNOWLEDGE

Local knowledge is a real asset in identifying birds. There might be 50 parrots in Australia but only four of them may be found locally. If you don't have local knowledge, or a local field guide or list, then you have to depend on the distribution maps in the field guides.

Once you think you have identified the bird, check the distribution map to see if it is found in your area. If not, look again at your bird rather than believe that the book is wrong. It rarely is.

BINOCULARS

Now, if you are excited by these techniques used to identify birds, you may care to invest in a pair of binoculars. They make the job a lot easier and a lot more enjoyable. So I will explain a little about using binoculars. Most bird watchers use binoculars that are 7 x 30 or 8 x 40 i.e. bringing the birds 7 or 8 times closer to the eye and with a 30 or 40 mm diameter lens. This increases the field of view and allows more light into the binoculars so that you get a stronger image.

Watching birds, you want to get as close as you can without the bird moving away from you. So the binoculars don't need to emphasize distance. It is a wide angle that is needed. If you are looking for a bird in the foliage, it is not rifle sights you want but area magnification.

OK. Let's talk about binocular technique in the bush. First, you must adjust the binoculars for your eyes. Pull the binoculars apart like this then push them back together until they fit comfortably to the space between your eyes. Now look at the dials on your binoculars. Between the lenses is the focus for the binoculars. Focus on an object 20 metres away and adjust until you have the best focus for your eyes.

Now on one of the eye pieces are the adjustments for your individual eye – one on the dial and the other on the body of the binoculars. If you can't get a sharp focus, fine tune your focus on an object by adjusting the eye piece dial to suit your eyes' specific needs.

If you don't need to wear glasses, and the binoculars are not damaged, you can just see that the mark on the dial is aligned with the mark on the body of the binoculars.

Well now, let's give it a go. Get together with someone else so that each pair has a field guide and a pair of binoculars. Both of you are to walk along slowly, looking for birds with the naked eye. Once you see a bird, keep your eye on it while you lift the binoculars to your eyes. Adjust the focus only and observe your bird.

Describe to the person with the field guide what you see, starting with size and shape and then the features. The person with the field guide finds the

Script

shape of the bird and uses the description to try to identify the bird. Don't swap the binoculars and field guide at this point but keep on communicating, one with their observations using the binoculars and the other with the written descriptions from the field guide.

Once you both think you have identified the bird, the person with the field guide shows it to the person with the binoculars. Hopefully, you are successful. If not, discuss what went wrong with the description. Swap the binoculars and the field guide and try again. I'll call you back here in about 20 minutes to discuss what happened and what you saw.

Groups disperse. Guide mingles and helps groups.

Guide calls groups together.

Well folks, how did it go?

Group responds. Guide prompts with some or all of the following: What did you see? What was it doing? Can you imitate the call? How did you go with the binoculars? How did you go with the field guides? What was it like trying to describe a bird just by observation and just by the field guide descriptions? Would you go bird watching again? What would you do to make the activity easier and more enjoyable?

I've had a lot of fun, folks, bird watching today. I hope you now agree that bird watching is easy and enjoyable. Happy birding!

GALACTIC WILDERNESS: EXPLORING OUR PLACE IN SPACE

TOPIC

Ecology

THEME/MESSAGE

We are dependent on the maintenance of the natural systems and processes for life on Earth, so let's put the Earth first.

DESIGN TECHNIQUE

Concept exploring activity

THE EXPERIENCE

An audio-visual experience with thought-provoking readings that convey a sense of awe and humility.

AUDIENCE

Adults; Teens

OBJECTIVES

Knowledge of the immensity of the universe and Earth cycles

Ability to imagine a sense of place in space

Sense of wonder

Appreciation of the need to live lightly on the Earth and take responsibility for one's actions so as to minimise the impact on the Earth

OUTLINE

Introduce the facts and fantasy of the universe.

Slides, music and thought-provoking readings

Conclusion – Let's put the Earth first.

SITE

Campfire with outdoor screen or indoor venue suitable for slide presentation

TIME LENGTH

20 minutes

TIME OF DAY

Evening

PROPS

tape or CD player

slides of space viewed from telescopes (available from science centres)

slides of science fantasy book cover illustrations (optional)

recording of Pink Floyd's 'Shine on, you crazy diamond' or other suitable music

PROMOTION

Take the ultimate journey into the Galactic Wilderness to discover our place in space. This evening campfire activity will entrance you. Bring something to sit on.



Tips for Guides

Select 40 slides of the planets and the stars – you can purchase them from planetariums and museums. You can mix fact and fantasy by adding sci-fi art slides from book covers and posters.

Pink Floyd's 'Wish You Were Here' is excellent music to accompany the slides, especially the track 'Shine on, You Crazy Diamond'. It is very effective to change slides slowly, in pulse with the music.

Script

Slide 1 - A Galaxy of Stars on screen and music playing as audience takes seats.

To contemplate the stars is to enter a universe of fantasy. The facts we know are as fantastic as the many mythological stories told about the stars.

There are 6000 stars visible to the human eye without the aid of a telescope.

Modern technology has revealed that there are more than 200 billion galaxies and that the universe is expanding with galaxies in motion.

The insignificance of our Earth in the immensity of the universe is a humbling realisation for humans. Until now, we have taken pride in our dominance of will over other species on planet Earth.

In reality we are, as author Carl Sagan has suggested, a small planet of a minor star at the edge of an inconsiderable galaxy.

Let's take a journey into space with the aid of some favourite photos of mine and some stories that reveal different perspectives on our place in space. Here is an Aboriginal interpretation of the stars, the story of Mirrabooka.

Slide 2 - The Southern Cross

Biami the Good Spirit was kept very busy, guarding the tribes as they roamed throughout the Earth, and he was much troubled for them. He found that he could not watch over all of them at once; he knew he must have help to keep them from harm.

Among the tribes there was a man called Mirrabooka, who was much loved for his wisdom, and the way in which he looked after the welfare of his people. Biami was well pleased with Mirrabooka.

When Mirrabooka grew old, Biami gave him a spirit form and placed him in the sky among the stars, and promised him eternal life. Biami gave Mirrabooka lights for his hands and feet and stretched him across the sky, so that he could watch forever over the tribes he loved. And the tribes could look up to him from earth and see the stars which were Mirrabooka's eyes gazing down on them.

When in later times, white invaders came from across the sea and stole the tribal lands, they did not know this group of stars across the southern sky as Mirrabooka, and they renamed them. They called Mirrabooka by the name of the Southern Cross. And the eyes of Mirrabooka they called the Pointers. But it is really Mirrabooka there, stretched across the sky; he will be there forever, for Biami has made it so.

Slide 3 - Earth from space.

Today scientists tell us that

- ▷ the Earth rotates on its axis every 24 hours;
- ▷ the moon cycle around the Earth takes 29.5 days;
- ▷ the Earth cycle around the sun take 365.2 days at a speed of 64,000 miles an hour – that is 102,400 kilometres an hour;
- ▷ the sun and its solar system cycles within our galaxy; and
- ▷ our galaxy itself is turning in a huge cycle.

We accept that there are billions of stars in the universe like our sun and many planets like our Earth revolving around these stars. Earth is not, as we believed



Script

until quite recent times, the centre of the universe. Rather, it is like a grain of sand on the shores of a vast galactic ocean.

The old concept of Earth being the centre of the universe may be dead. But there still remains an insidious belief – that humans are the centre of the universe. This is evident in human's exploitation of this planet's resources – its minerals, vegetation and animals. We pay scant regard to the rights to existence of other species on planet Earth – as if it is only by the grace of humans that our wildlife has rights. Wild places are where wildlife is respected for its own sake. Management of natural areas revolves primarily around managing humans – the 'alien intruders'. It is in the natural environment that we can best consider nature in its totality – and that includes the stars, the Galactic Wilderness.

The contemplation of space is a humbling experience for humans. In space we confront the prospect of our own insignificance in the context of the universe.

Slides 4 to 40: Play music and progress through slide presentation without commentary.

Final slide: A Galaxy of Stars. Guide reads quote from An Interpretation of Wilderness by Gary Opat.

"The planet Earth is a single self-contained living organism. It depends on energy from the sun. Humankind is a fully integrated part of this planet. However, the health and sanity of humanity can only continue as long as the planet's environment remains healthy and sane.

Only in its natural state is air breathable, water drinkable and food edible. These can only remain if the planetary life support system remains intact. This finely balanced system absorbs carbon dioxide and pollutants while replenishing the environment with oxygen and fresh water. On this depends the genetic diversity of life from which we draw our resources – animal, vegetable, mineral and medicinal resources.

Our planetary life support system, similar to that aboard a spacecraft, is generally referred to as wilderness. Our planet is our spacecraft, and wilderness is our most important, most basic resource. It gives us our very life's breath. It is the natural, though fragile, environment of which we are all a part.

Wilderness is rapidly disappearing world-wide, while pollution is rapidly increasing. Without the massive green machinery that constantly purifies and protects the environment that supports us, our life support system will collapse.

The symptoms of ecological collapse we are experiencing on Earth now. In time it shall be more destructive to us than a nuclear war. Many people are now trying to prevent this by obtaining world-wide recognition, appreciation and protection of the complex planetary life support system.

Biosphere reserves are such very important places. Australian forests of great, matured eucalypts and rainforests in their delicate unaltered state directly keep us alive. By preserving the mighty forest we preserve the health of our world and ourselves. Without them we will bring about the death of our environment and ourselves.

We are adrift in a galactic sea aboard the Sunship Earth. If the ship is damaged, where do we turn? Management and maintenance are our responsibility. Planet Earth needs all hands on deck.

You are personally responsible for the health of this planet and are obliged to protect it, for without exception, it has given you everything that you are."

In the universal context we are an insignificant species on an insubstantial planet on the edge of an insignificant galaxy. But there is only one Earth. Let's put Earth first. Learn to live lightly on the Earth. Reduce. Reuse. Refuse. Recycle. Regrow.



GETTING IN TOUCH

TOPIC

Plants; Heritage values

THEME/MESSAGE

Plant diversity provides for a variety of sensory and communicative responses.

DESIGN TECHNIQUE

Sensory activity

THE EXPERIENCE

An activity for participants working in pairs using their senses to explore plants in the bush.

AUDIENCE

Adults; Family; Teens

OBJECTIVES

Knowledge of senses and sensory basis of communication

To describe sensory information about plants

Appreciate the intriguing diversity of sensory stimuli in the bush

To work supportively in pairs

OUTLINE

Introduce the senses, and how we respond to our environment through senses and feelings.

Work in pairs: one is the blindfolded 'communicator' and the other 'the eyes only' who mustn't speak but leads the pair to the plants in the bush.

Discussion of the experiences and how the pair work together.

Conclusion: The bush is home to many kinds of plants as well as a place for a diversity of sensory experiences.

SITE

Any bit of bush or garden

TIME LENGTH

45 minutes

TIME OF DAY

Anytime of day

PROPS

Blindfolds for half the group

PROMOTION

Re-discover some things about yourself and bush plants in this fun activity for all ages. It's sensational!



Script

Hi folks!

Today we are going to participate in a guided activity that will get you in touch with your senses while discovering the plant life in the bush here.

Do you have a disability, or have a friend or relative with a sensory disability? Hard of hearing, blind or can't speak? Well, this is an activity in which you may excel. People with disabilities usually compensate for them by developing other abilities. A blind person will often develop better listening skills; a deaf person learns to read body language better than most able-bodied people. We are going to investigate sensory disabilities today and see what extra skills we can develop in compensation. Let's pair up first, then I'll explain what we will do. The brave should choose someone they don't know. I have one blindfold for each pair. One of you will wear the blindfold while the other leads the blindfolded person along by the hand or arm to touch, smell, even taste a variety of plants. The sighted person must not touch or taste any of the plants or speak (except to say "tell me more"). They are 'the eyes only'.

The blindfolded person is the communicator and must describe everything they experience to "the eyes only" person who can only look, but not touch, taste or smell. Let me demonstrate it with my partner.

Guide demonstrates by leading partner to an object and placing their hand on it saying "tell me more".

Let's take ten minutes at this, then I'll call you over to discuss what you discovered. After the discussion we'll swap roles. Let's go. Blindfolds on, see you in ten minutes back here.

Pairs form and put blindfolds on. Group explores the bush.

Right, let's gather over here and discuss what the experience was like.

Group gathers together.

Let's hear from "the eyes only" first. How did it feel to only be able to see? Were there parts of plants you really wanted to touch, taste or smell based on the descriptions of "the communicator"? What was the description given of the plant? Were you satisfied just with the word descriptions or did you want to experience it for yourself?

Group comments.

Now let's hear from "the communicator". What was it like to be blind for ten minutes? What happened? Did you adjust and become more focussed on your other senses? Are there plants you touched, smelt or tasted that you really wanted to see? Were you satisfied with not seeing the plant?

Group comments.

Well, now we will swap roles and try it again. This time we will change partners. So if you are to be blindfolded this time, pair up with an other person who was blindfolded before.

Group forms pairs, blindfolds in place. Group moves off to explore bush.

Right, let's get together to hear what it was like this time. What new things did you notice?

Group comments.

You have discovered that the bush is home to many different plant life forms. This plant diversity can give us lots of different sensory and communicative responses, if we get in touch and use all our senses.

By caring for the bush we care for the wealth of enriching experiences that await us every time we go bush. Perhaps we will discover a part of ourselves that we usually take for granted. Enjoy the bush.



KANGAROO SQUASH

TOPIC

Animals; Management issues

THEME/MESSAGE

Speed kills animals and humans, so drive safe for your sake and for the wildlife.

DESIGN TECHNIQUE

Problem solving activity

THE EXPERIENCE

An active game of tag between 'animals' and 'vehicles'. Builds feelings for animals and people threatened by road accidents. An opportunity to find solutions so people and animals can live more safely together.

AUDIENCE

Teens; Kids

Maximum: 25; minimum 10

OBJECTIVES

Know how human use of the natural environment affects wildlife; understand concept of habitat.

Able to offer solutions to vehicle impact on native animals, habitat and visitors.

Children influence parents to drive carefully in bush areas to protect the animals and themselves.

OUTLINE

Explain the game.

Assign animal names to participants.

Identify movement patterns of animals.

Select active individual as car

Car moves along road, animals killed; road kill animals become cars. Cars increase and more animals die.

Ask the group "What's happening?"

Have the group identify the problem.

Propose solutions; summarise best solutions.

Conclude with the message "Speed kills animals and humans, so drive safe for your sake and for the wildlife".

SITE

Cleared area with bushland nearby

TIME LENGTH

45 to 60 minutes

TIME OF DAY

Daytime, or at night using torches or vehicle spotlights

PROPS

small bean bag, gumnut or small ball (one that won't bounce)

alphabetical list of native animals or species list
native animal name tags for everyone in the group
something to mark the boundaries, for example flagging tape and stakes (optional)

whistle

PROMOTION

Kangaroo Squash – a great kids activity to develop an awareness of the movements and habitats of native animals, as well as people! Join in the fun and discover creative ways to protect wildlife.





Tips for Guides

Kangaroo Squash is a variation on the old game 'British Bulldog'. You may also know it as 'Red Rover'. Basically, you take a group of kids and choose one or two to be 'It'. The rest line up at one end of a marked-out area (the marking-out is optional). They must get to the other end of the course without being tagged by those in the middle (see diagram). When they are tagged they have to join those in the middle. Thus, the numbers in the middle increase and those trying to get through decrease.

In Kangaroo Squash a few additions have been made to the game. The kids who are 'It' are given the role of cars, motorbikes or trucks (whatever their favourite gas-guzzler is). The kids moving from one end of the course to the other become the wildlife that live in the area and have to cross the road – bandicoots, chuditch, birds, kangaroos and so on.

If a car hits some wildlife – squash! – the wildlife 'dies' and becomes a new vehicle in the middle. As the traffic increases, the wildlife decreases. For the effect you can leave a few 'animals' as road kills. To make it more difficult, you can have the kids playing the wildlife move as their chosen animal would move, that is, hop, crawl, waddle. Kangaroo Squash is a good activity for kids who have heaps of energy.

Find a nice open level area free from rocks, stones, broken glass and discarded needles.

Get the group sitting in a circle and tell them about the different animals that live in the area. You may wish to have cards with the name of each animal clearly printed on them, which can be handed to one of the kids as you tell them something about the animal, for example, where it lives, what it eats, how it moves.

Take a small bean bag, gumnut or ball (preferably one that won't bounce) and get the kids to throw it to one another. As each kid catches it, ask them to call out their name and the name of one of the animals you have described, for example, Kevin Kangaroo. This will be their role for Kangaroo Squash. Get them to keep

throwing the ball around until everyone has chosen an animal. You can keep going as long as you want, to help them get to know one another and to learn the names of local native animals.

A few kids are chosen to be the cars, trucks and motorbikes. It is best to choose those who seem to be the most outspoken or potential trouble makers (these are the kids with heavy metal T-shirts). Make sure that you tell the cars that punching, eye-gouging, pile driving, shirt-fronting, head high tackles and right and left clenched fists to the head and upper body are not on. A light tag is all that is required and allowed.



Script

Okay, kids, now we are going to have a game of Kangaroo Squash. Let's sit in a circle so I can tell you about some of the animals that live in this area. First there is the wallaby. Here is a card you can pass around, with its photo and a bit about it.

Hand out card

The wallaby is a marsupial. It has a pouch and suckles its young (like human mothers do). Wallabies move by hopping on both hind legs and balancing with their tail.

Then there is the echidna. It eats mostly termites. It's prickly and swaggers along.

Hand out card

And the tiger snake likes the wetlands down the bottom of the reserve. It slithers and ripples along like this.

Guide demonstrates by walking and swaying with arms together and outstretched in front.

Hand out card

Guide continues with descriptions of as many animals as required by the size of the group.

Now, to decide which animal you want to be, I'm going to toss this bean bag/gumnut to somebody, and when they catch it, they will call out their own name and the animal they choose to be. They throw it back to me and I throw it to another person.

Throws bean bag or gumnut to child.

Right, what do you want to be?

Repeats name the child has chosen. Throws bean bag to another child. Remind children to remember their chosen name.

Guide continues until all but three children have an animal.

And you three, we need some vehicles, what kind of vehicle are you going to be? Atilla, you can be a Mack Truck; Jane, you can be a fully equipped GTHQ Falcon with dragways; and Dougie, you can be a Morris 1100 that floats on fluid.

OK, all you animals. This bush area where you live is called Scumbag Flats. Most of it has been a National Park for many years which protects all the plants and animals. Where the Park finishes there is some privately owned land which faces the Boofhead Inlet and a big city developer wants to break the land into small blocks for houses. He has called the subdivision Boofhead Vista.

Now all of you animals have to cross the road two or three times a day to move between the National Park and feeding areas. The road is very busy. Many cars and trucks are travelling the road every day – and sometimes some of you don't make it back from the feeding area.

The road is just over there. This is the National Park and that is the feeding area over there. Let's see how long you can survive the new road and the traffic. You all want to cross over to feed, and then make the trip back here. Understand?

When you get tagged, that is like getting run over. You are then on the vehicles' team and you try to tag some more animals. But you echidnas stay on the road – you are the road kills. You can lie around and get in the way of the vehicles and animals.

Script

OK, off you go, all you animals, to the starting line and wait for the starting whistle. And you three vehicles, you can go over onto the road and start driving back and forth. When everyone is ready, I'll blow the whistle to start.

Position the animals on the starting line and when the vehicles are ready, blow the starting whistle. After a few trips backwards and forwards there will be heaps of vehicles and no animals. If you want to, you can let them start again.

OK, everyone, it looks like the vehicles have won. Come on back here and sit around our circle again. How did it go?

Compare injuries and send the worst affected kids to the waiting ambulance or paramedics.

How many animals survived?

Group responds

Why did the animals keep crossing the road even after some had been knocked over?

Group responds

How do you think the road deaths might have affected other animals? *(for example, some animals may have been scared away altogether; predation by foxes and cats along the road may have increased; the road itself may affect adjacent bush (for example, increased wind, loss of habitat, increased rubbish, risk of fire).*

Group responds

What else can you think of?

Group responds

Think about all the roads through the bush that you have been on. Has anyone seen a dead roo or other animal?

Group responds

Besides trying to cross the road, why might animals be attracted to the side of the road? *(for example, food, heat from the bitumen, run off of water into roadside gullies)*

Group responds

How could some of these things have been avoided? *(for example, curvi-linear design to slow vehicles down; signs warning of animals on the road; encouraging people not to travel when the animals are most active; road underpasses for animal corridors)*

Group responds

Well, you've had quite a game, and some new ideas to tell your family and friends about animals and roads. It was great to work with you. Drive safely for your sake and for the wildlife. Cheerio.

MATT THE FERAL CAT

TOPIC

Animals; Management issues

THEME/MESSAGE

The feral cat threatens the lives of native Australian animals. Keep your pet cats at home and inside at night to help protect our native animals.

DESIGN TECHNIQUE

Arts and craft activity (performing arts)

THE EXPERIENCE

Watch a puppet show and respond to audience prompt cards. At the end of the performance, sing the 'Matt the Feral Cat' song to affirm the importance of keeping pet cats well cared for and inside the home at night.

AUDIENCE

Family; Kids

OBJECTIVES

Know that feral cats kill native animals.

Able to empathise with the plight of native animals threatened by feral cats.

Appreciate that feral cats need to be eradicated and that domestic cats can go feral without care and control.

Take actions to keep domestic cats inside at night to protect native animals that are mostly nocturnal.

STORY OUTLINE

Hugh Perhaps' pet, Matthew Meow, keeps Hugh awake at night.

Hugh gets into strife at work for being sleepy.

He gets rid of Matthew in the national park.

Matthew survives by hunting native creatures – he's Matt the Feral Cat.

The native animals are spooked and have a meeting.

They tell the Park Ranger, who notices the feathers and bones left by the feral cat. He sets a trap.

Matt is caught and disposed of and the park returns to normal.

Finale: Audience sings 'Matt the Feral Cat'.

SITE

Suitable for puppet show

TIME LENGTH

20 minutes

TIME OF DAY

Day or night

PROPS

storyteller with storybook

a performer to play Hugh Perhaps

a puppeteer

puppets: domestic cat, much larger feral cat, native animals (frog, bird, reptile, small mammal)

puppet theatre (table covered with cloth to hide puppeteer)

puppet theatre props for backyard scene (picket fence, rubbish bin, shoe, clock, telephone, motor bike helmet); and national park (potted plants, feathers, native animal skull, box for cat trap)

chair for performer in pyjamas with pillow; with steering wheel for driving car; in Park Ranger's hat and shirt

prompt cards for audience: 'Meow'; 'Yowl, Yowl'; 'Boo, Hiss'; 'Hurrah!'

tape recorder and tape of sound effects (motor bike, bird song) and Matt the Feral Cat song (or live performance on guitar)

Song sheets for 'Matt the Feral Cat' or prompt card with lyrics

PROMOTION

Come along to our campfire puppet theatre production of Matt the Feral Cat. Join in the fun and learn how you can look after your cat to stop the feral peril that is threatening our native animals. Suitable for all ages. Bring something to sit on and a mug for billy tea.

Script



Storyteller dressed as the Ranger comes forward with a big old storybook. He or she also has a set of large prompt cards for the audience. You may need a stand for these or a helper.

Hugh Perhaps, the other performer, says little except responds to the storyline in actions and exclamations.

The other characters are puppets.

Storyteller: Good evening folks, especially the kids. I have a special story to read to you this evening about a naughty cat named Matthew Meow (*Matthew pops up and takes a bow from the puppet theatre*) and Hugh Perhaps, the owner of Matthew. (*Hugh gives a wave*).

Hugh wanted a pet. He went to the pet shop.

At first, Hugh looked at a little brown rabbit.

Hugh: Oh no, that's no good, a rabbit would eat too much lettuce.

Storyteller: Then Hugh looked at the cocky and the little white puppy.

Hugh: I don't know. They don't seem the ones for me.

Storyteller: Finally, something caught his eye. Yes, Hugh thought, here's what I want for a pet.

Hugh picks up cat. Matthew meows.

Hugh: I'll call him Matthew.

Matthew meows.

Storyteller: Matthew was a cute little kitten. It was love at first sight.

Matthew meows.

Prompt card: 'Meow'



Script

Storyteller: Oh, what a lovely little cat. He liked to run outside and climb and jump. He would sit on the fence.

Matthew can't find the fence. Storyteller tells him not to sit on the building, to sit on the fence. "There is a fence back there, Matthew. Sit on it, please." Eventually the puppeteer places box painted like a picket fence on stage, and Matthew sits on top of it.

Storyteller: Matthew started yowling at night, sitting on the fence so that Hugh got very little sleep. So little sleep that he would fall asleep at work. After he had done this for several days, the boss said: "Do you enjoy your job, Hugh?"

Hugh: (*nodding*) I do.

Storyteller: You'd better sleep in your own time, then.

A couple of nights later, Matthew was keeping the neighbourhood awake again.

Matthew yowls. Prompt card: 'Yowl, Yowl'.

Storyteller: He kept Hugh up all night. Hugh said, "Shut up, Matthew! Stupid cat!

And he threw his shoe at the cat.

Hugh throws shoe at the cat.

Storyteller: The next morning Hugh was late for work. He had thrown his good shoe and it took so long to find it. The boss was there, standing looking at the clock.

Hugh mimes the boss with the timeclock.

Storyteller: The final straw came after a particularly loud night-time singing session.

Prompt sign: 'Yowl, Yowl'

Storyteller: Hugh threw his alarm clock at the cat.

Hugh throws clock at cat, and says, Shut up, Matthew.

Storyteller: Of course, Hugh slept in. He was very late for work. So he rang his boss and said, "My car has broken down. I'm going to be late for work".

Hugh pretends to ring on the toy phone, and says "Sorry, boss!"

Storyteller: Hugh realised that he had to do something about Matthew, and he wondered what he could do. Then he came to this beaut idea. "I know" he said, "I'll take him to the National Park. They look after animals."

Matthew shakes his head, meows, protests.

Hugh: Yes, you'll like it there, Matthew. You can ride trail bikes all day.

Matthew shakes his head, meows, protests.

Hugh puts animal carrier on stage. He sneaks up on Matthew, grabs him and puts him into the carrier.

Hugh jumps on his motorbike and rides to the National Park. Motorbike sounds.

Storyteller: (*To the audience*) Close your eyes now while we fix the National Park.

Storyteller sticks greenery on stage.

Script

Storyteller: The next day (*tape of bird calls*) Matthew wakes up quite frightened.

Cat acts frightened, gives a shaky meow.

Storyteller: But he is hungry. He tries to catch a frog. But the frog just hops away.

Frog on puppet theatre stage. Matthew pounces but misses as frog jumps.

Storyteller: Matthew got even more hungry. In time he learnt to hunt the native animals until soon Matthew was no longer just a cute cat. Now he was a feral cat. He was Matt the Feral Cat, Public Enemy No. 1, a killer.

Large shaggy cat puppet comes up, shakes himself and acts fierce. Prompt card: 'Boo! Hiss!'

Cocky comes up, cat grabs him and pulls him below the stage; cat throws feathers around.

Storyteller: Things got so bad in the National Park that the animals decided to have a meeting, to see what they could do to get rid of Matt. They talked it over and decided to tell the Park Ranger about the feral cat.

Park Ranger comes on.

Storyteller: The Park Ranger noticed lots of feathers and bones around. And most of the animals had disappeared. The few that were around were very nervous.

Park Ranger picks up feathers and skull and looks at them.

Storyteller: He found feathers, bits of animals, bits of bone – all that was left of the animals of the Park. The Park Ranger knew that he would have to catch the cat.

Cat shakes his head 'No'.

Storyteller: The Park Ranger set cat traps. He put some cat food in the traps.

Ranger puts box on stage, and puts open tin into box. Cat approaches slowly, moves away and back again.

Storyteller: Matt was very suspicious at first.
But he wasn't having much luck catching any of the remaining animals. He was hungry.
Finally, Matt overcame his suspicion and went into the trap.
Caught him! Hurrah!

Ranger stuffs Matt into box. Prompt card 'Hurrah!' Meows from Matt.

Storyteller: So the Park Ranger took him away, and the remaining Park animals were saved. So now we know that feral cats threaten the lives of our native Australian animals. To protect them, keep you pet cats at home and inside at night.

Let's all sing our song about Matt the Feral Cat.

Finale: Audience sings 'Matt the Feral Cat' from song lyric sheets or following lyrics on prompt cards.

Script

MATT THE FERAL CAT: THE SONG LYRICS AND CHORDS FOR GUITAR

Fast strumming in each chord, hillbilly, blue-grass style. Can be played live or pre-recorded and played on tape.

MATT THE FERAL CAT

C G C
 Matt the feral cat was once a tiny puss
 C G C
 Until his human owners dumped him in the bush.
 F C
 He was such a wee thing he shouldn't have survived.
 G C
 Now he's over 30 pounds and very much alive.

C G C
 For Matt the fight for life was long, we thought he mightn't cope
 C G C
 But then we are forgetting the feral cat's no dope.
 F C
 They are close relations of the king of beasts
 G C
 The way they gobble up our birds you'd think it was a feast.

C G C
 The poor old native tiger cat can hardly get his fill.
 C G C
 The introduced feral cat always gets a kill.
 F C
 The tiger cat is wanning, his numbers are going down.
 G C
 Looks as though the feral cat will always be around.

C G C
 There's a moral to be learnt, there's a lesson here.
 C G C
 Keep your cats close to your home, make sure they're always near.
 F C
 You won't have to dump them on a national park.
 G C
 They like it better in your lap than wandering in the dark.

Script

C G C
There's a moral to be learnt, there's a lesson here.

C G C
Castrate your old tom, you've got nothing to fear.

F C
You won't have to dump it on a national park

 G C
'Cause once your tom's an it, he'll stay home after dark.

(words and music by Brian Mackness)



MEET THE PLANTS

TOPIC

Plants

THEME/MESSAGE

There is much more to appreciating plants than just knowing their names. Plants have particular features which enable them to fit in where they live, interacting with the soil, other plants and animals in their natural community.

DESIGN TECHNIQUE

Wildlife observations

THE EXPERIENCE

Learning to look closely at plants to discover their secrets of survival by matching pressed plant specimens with living bush plants. Letting others in the group into your plant's secrets.

AUDIENCE

Adults; Family; Teens

Maximum: 30; minimum: 4

OBJECTIVES

Knowledge of plants and plant observation techniques.

Be able to apply plant observation, identification and enquiry techniques.

Appreciate plants, plant features and their adaptations to the environment.

OUTLINE

There is much more to appreciating plants than to just knowing their names. Plant observation technique of using plant specimen cards for identification. Plants have features to fit in where they live, interacting with the soil and other plants and animals. Investigation and enquiry techniques on specimen card to understand plant ecology

Participants apply techniques.

Participants take role of their plant and describe their attributes to the group.

Discussion and conclusion.

SITE

Bushland suitable for collecting and identifying specimens along a defined trail

TIME LENGTH

45 minutes

TIME OF DAY

Anytime of day

PROPS

specimen cards in clear plastic envelopes to hold pressed specimens (one for each person)

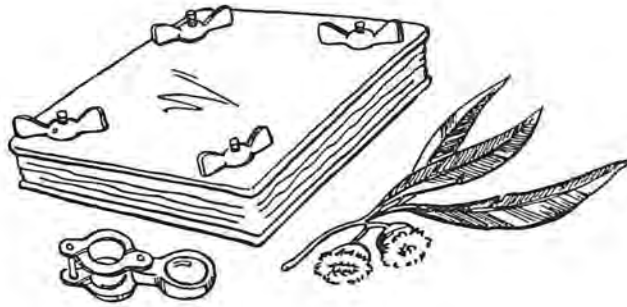
'My life as a plant' cards

pens or pencils

hand lenses or magnifying glasses (optional)

PROMOTION

Come along and learn how to really look at plants. Discover their many features and adaptations for life in the local bush community – for there is much more to appreciating plants than just knowing a name.



Hi folks!

Today we are going to look at the plants here to discover their many features and adaptations for life in this bush community. There is much more to appreciating plants than just knowing their names.

To really get into plant life, each one of you is to take on the role of a particular plant. When you are familiar with it, you'll be asked to introduce yourself to the others in our group. By the end of the activity we will have a lot of plant friends.

In these plastic envelopes, I have over twenty specimens of plants from along this short trail. Each plant specimen has a specimen card, which gives the name of the plant and a card called 'My life as a plant', which is a list of partially completed statements. Each one of you will get a plant specimen with its card.

Show plant specimen envelope and card. Distribute one to each member of the group.

What you do is use the plant specimen to find your plant in the bush. It will be no more than five metres from the edge of the trail so it should not be too hard for you to find. When you find your plant in the bush, take a close look at it and fill out your 'My life as a plant' form.

When you have completed the 'My life as a plant' form, sit quietly with your plant for a while. Look at it, touch it, smell it - think about life as a plant. Imagine what it would be like if you were the plant.

In about 15 minutes, I'll give you a call and we'll all gather back here. Then we'll walk together along the trail. As we come up to your plant, I want you to stop the group and talk to us as if you were the plant. "Hello. My name is *Corymbia calophylla*, although I am more commonly known as Marri. You may have seen my large creamy flowers and huge honkey nuts" Share with us all the observations about yourself and your lifestyle here in this bush community. 'My life as a plant' form will help you.

All right, let's move along this trail for no more than 200 metres. Look on either side for your plant - it will be no more than 5 metres from the trail side. I'll call you to meet back here in 15 minutes.

Participants look for their plant, and complete their 'My life as a plant' card. Leader helps participants who may be having trouble finding their plant.

OK everybody, time to move back to the start of the trail. Right, did you all find your plants? So, let's start Meeting the Plants.

Group walks the trail and gives their plant introductions

Well, I've enjoyed meeting all you plants. I hope you enjoyed meeting one another. Now you know over [20] special friends in this bush community. And you can see that there is much more to appreciating plants than just knowing their names. Plants have particular features to help them to fit in where they live. They interact with the soil, with other plants and with the animals in their natural community.



MY LIFE AS A PLANT

Here are some things you could look for about your plant that you could show and talk about to the group.

▷ My flowers are

▷ My flowers or leaves smell

▷ I produce seeds/fruits/nuts that are

▷ My bark (or leaves) feels like

▷ I prefer soil that is

▷ _____
(name of animal) visits me for food because

▷ _____
(name of animal) depends on me for shelter.

▷ My appearance changes when

▷ The most difficult time for me is when

▷ But I solve this problem by

Moir's Magical Mortar Mix

TOPIC

History

THEME/MESSAGE

Creative resourcefulness was the key to the early settlers' quality of life.

DESIGN TECHNIQUE

Arts and craft activity

THE EXPERIENCE

Experience the challenge of establishing a pioneering settlement, and enjoy the achievement of being able to do it, (at least, a bit of it!).

AUDIENCE

Adults; Family

Maximum: 15

OBJECTIVES

Be able to make mortar from lime.

Appreciate the ability of early pioneers to adapt local resources to their needs.

OUTLINE

Introduce historic site.

Discuss building a house using local stone.

Show how to make lime mortar.

Participants make mortar.

Repeat the message that early pioneers were creative and resourceful.

Close with picnic and billy tea.

SITE

Moir's Homestead Historic Site, Stokes National Park, via Esperance, Western Australia

TIME LENGTH

90 minutes

TIME OF DAY

Daytime

PROPS

historical photos and plans

firewood

water

hammers

3 x 20 L drums

gloves

tape recorder and cassette tape recording of elderly voice reading extracts from Charles Moir's diary

crowbar to crush the rocks

limestone rocks to cook

board for pouring cement onto

trowels

limestone blocks to build with

billy and tea

PROMOTION

Experience a taste of life in the 1860s at Moir's Homestead Historic Site. Laying limestone is thirsty work so bring your mug and your imagination. You'll never take the local hardware store for granted again.

Script

Welcome.

Let me take you back to the year 1860. Then, there was no visible sign of human habitation where we are standing now.

As you face uphill with your backs to the sun, you see thick bush. Who would have thought that this was a place to settle, clear the scrub, build a house and raise a family?

Listen to the axes chopping, people yelling, bush burning; the sounds we might hear. Smell the freshly chopped vegetation, smoking fires, food cooking. Aah!! The smell of cooking has brought me back to reality, so let's set a fire and boil the billy. Come and make yourselves comfortable. Help yourselves to some billy tea.

Participants get tea and sit around the fire. Guide puts on some wood and looks up at group.

What I have in my hand is the beginning of Western habitation in much of the south west of our State – limestone rock. All the buildings you can see around you had their origin in this naturally occurring resource – limestone rock.

Today we are going to make a limestone mortar to stick these building blocks together. Time nor labour will allow us to build our own homestead.

First I place small pieces of limestone rock in a hot fire or in a drum over the fire to cook them. Half an hour in the heat should be enough.

While we wait for the limestone to cook, and enjoy our billy tea, let's listen to Charlie Moir's childhood reminiscences.

Guide turns on tape or CD recording.

Extract from oral history transcript of Charles Moir, recorded in 1978 when he was 89 years old.

"...The blacksmith's shop, that was the first place they built. They wheeled all the stone down off the hill with a wheelbarrow.

...I think there were convicts helped the work and they built the homestead and then built the shearing shed...And all the stone was carted with horse and drays and they burnt all the lime there themselves while carving the stone – burnt all the lime.

...Well my Dad, [William Moir] he used to make everything he wanted for the homestead. He used to make his headers, like, for heading the wheat and a winnowing machine for cleaning the wheat, and anything at all. He used to make his harrows. Any part of a dray or cart he wanted to make he could make.

Make all his own wheels...make his own spokes and hubs for the wheels out of yate trees...Made his own lathes to turn the hubs with, that's what, used to drive it with the horseworks.

...We used to get all our stores down from Albany. The old Grace Darling, she was a sailing boat, used to call in there and land them all on the beach for us.

...They used to row ashore and load wool in a dinghy and row back to the ship again, unload it then come back again, get another load...And nowadays they moan if they get a bale of wool over two hundred pounds. We used, they used to be around about four or five hundred pound some of them, and they used to lift them up and put them in the boat."

Well, the rocks look about ready to me. Let's see.

Script

Guide extracts the very hot limestone rocks from the fire and puts them into a drum, if not already in drum.

Now we have to add water and pulverise the rock with a crowbar. This makes a cement-type slurry.

Guide adds water and crushes rocks with crowbar.

That's hard work. Any volunteers? Now I'll pour the limestone slurry onto this board, and when it cools a little, we can start using it.

Guide pours slurry onto board.

Grab a trowel and let's build a wall with these limestone blocks.

Participants use trowels and mortar.

Easy, isn't it. Congratulations. You are on the way to becoming Master Builders with Moir's Magical Mortar Mix. If you have all had a go, that's enough for now.

When we have cleaned up here and had our lunch, we will walk to the port of Fanny Cove. The coastal trading vessel 'Grace Darling' has arrived to load our produce and to unload stores we have ordered for the year ahead. There is a shortage of stevedores so it's all hands on deck.

During lunch, Guide plays further tape recording of Charles Moir's recollections of childhood and life at the homestead.



PLANT PRINTS

TOPIC

Plants

THEME/MESSAGE

The diversity of shapes of plants from the Australian bush is a wonderful resource for creative expression.

DESIGN TECHNIQUE

Arts and craft activity

THE EXPERIENCE

Create a personal memento of the Australian bush experience by collecting interesting leaf, flower, fruit and nut shapes to arrange and spray-stencil onto cloth.

AUDIENCE

Adults; Family; Teens; Kids

OBJECTIVES

Know the basics of spray stencilling.

Able to collect, arrange and spray-stencil leaves, flowers, nuts and fruits.

Appreciate the diversity of shapes found in bushland.

Appreciate bushland as a natural resource for creativity expressed in unique Australian products.

OUTLINE

Introduce the activity to find out what is special about this bit of bush – its diversity of shapes of leaves, flowers, fruits and nuts.

Collect interesting plant shapes, preferably dead plant parts from the ground.

Arrange plant pieces onto cloth items and spray with fabric dyes.

Conclude that the bush is a resource to inspire creative expression.

PROPS

secateurs

cloth bags for collecting specimens (some with stencilled examples of the craft)

hand spray bottles

fabric dyes

cloth samples

participants to bring cloth items for stencilling

SITE

Area suitable for craft activities (indoors or outdoors) near bush or native gardens where plant samples can be collected.

TIME LENGTH

120 minutes

TIME OF DAY

Daytime

PROMOTION

Make your own stencilled mementoes while discovering the diversity of plant shapes in the local Australian bush. A fun-filled adventure in bush creativity for all ages. Bring along a cloth item: tee-shirt, table cloth, pillow case – anything that has no pattern and will take colours stencilled onto it.

Script



Hi folks!

I am your leader for the Plant Prints craft. We will be making some fabric-dyed stencilled items and looking at what's special about this bit of bush around the resort activities centre. We are going to discover the diversity of plant shapes found here.

Our first task will be to look for and collect interestingly shaped leaves, flowers, fruits and nuts along a short walk trail through the bush and around the gardens from the native plants from this area.

It is best to collect only dead plant parts from the ground. However, if you feel you must collect from a living plant because you can't find a suitable piece on the ground, please use the secateurs provided to selectively harvest pieces to make minimal impact on the plant. If you sample from the plants away from the trail edge or on the opposite side to the trail, no-one should notice.

Don't ever do this activity in a national park without a permit. Here in this bushland it is okay as long as we monitor our impact. If we take care of the plants, we should be able to sustain running this activity here. That is what ecotourism is about – sustaining the resource while enriching the experience of visitors.

Here are some cloth collecting bags.

Guide distributes bags.

When you each have five or six plant samples (of different plants or of the one plant if you like), we will return to the resort's sheltered activity centre here.

We will arrange our plant pieces onto a cloth sample to create an interesting pattern, and spray them with fabric dye to create stencilled plant prints like these on the collecting bags. And you can stencil onto the cloth items you have brought along. More about that later.



Script

Let's go collecting, and remember – be gentle on our bush plants. Preferably collect from the ground amongst the leaf litter.

Group moves along trail, collecting

Guide leads group back to activity centre

Now let's have a look at the specimens you have collected. There certainly is a diversity of shapes of leaves. Look at this one, and this one. Oh! Look at these flowers. And here are some intriguing gumnuts, and some casuarina cones. You are going to be able to make some interesting arrangements and stencilled shapes from these.

Okay, let's arrange them on top of these samples to make a pattern.

Guide distributes cloth samples. Group tries out various designs.

Right. Now we will try the stencilling technique using the fabric dyes that I have put into these spray bottles. Remember that where your plant stencils are, there will not be colour once you spray, like this.

Guide demonstrates spraying over a leaf onto the cloth.

You can also spray the cloth first and then put down the plant pieces and spray with a stronger colour. The plant stencil protects the first colour you sprayed, like this.

Guide demonstrates.

The second colour oversprays the first so you get a two-tone pattern. You can add more if you like. It is best to do just one stencil at a time and build up your colourful pattern from there.

We will all try it out on the cloth samples before moving onto the items you have brought along to stencil.

Group experiments with spraying.

Good. Now create your design on your own item, and spray it.

Group arranges plant stencils and sprays their items.

Well, you have created some exciting designs. Let's line them up along here so we can all look at them.

Guide and group line up items.

Wow! You have certainly demonstrated that there is a diversity of shapes of plants from the Australian bush and that they are a wonderful resource for creative expression.

Thanks for participating in this Plant Prints activity. Please remember to take care of our bush lands. The bush is the foundation of our Australian heritage and a rich cultural resource as we have found. Enjoy your memento of your experience with the diversity of plant shapes you encountered here today.



ROCK AND ROLL

TOPIC

Landscape

THEME/MESSAGE

Rocks are indicators of the processes of time upon the landscape.

DESIGN TECHNIQUE

Concept exploring activity (geological time)

THE EXPERIENCE

Visual demonstration of geological time scale and the processes that formed the landscape and the rocks of the Darling Range, near Perth, Western Australia. Handle local rocks and see how life organises itself around a rock outcrop.

AUDIENCE

Adults; Teens

OBJECTIVES

Knowledge: the geological time scale of events on earth; the dependence of vegetation on geology and landforms which creates forest types; why wandoo, jarrah/marri forests grow where they do.

Skills: identify granite from a rock sample and in the landscape and 'read' the natural landscape to tell us what is happening.

Attitudes and values: a sense of wonder in the process of time on landscape, rocks and life on earth; the forest is a special place; the interconnectedness of all things in a forest.

OUTLINE

Introduce geology of the area.

Describe geological time.

See local rocks.

Walk onto a granite outcrop and observe its influence on the forest.

Conclude with the message that rocks tell us about the effects of time on the landscape.

When this tour is offered at The Hills Forest Activity Centre, at Mundaring Weir, it continues by bus to inspect nearby seismic and ionospheric measuring facilities, and to tour a laboratory facility where seismic data is collected and processed.

SITE

Jarrah/marri forest over laterite plateau and wandoo forest associated with granite outcrops

TIME LENGTH

90 minutes

The full tour offered by The Hills Forest Activity Centre takes three hours: a 50 minute introduction at the Centre and walk to nearby granite outcrop, 20 minutes at the granite outcrop, 15 minutes at the vault, 5 to 8 minutes at the Ionosonde towers, and 40 minutes at the Mundaring laboratory, plus travelling time.

TIME OF DAY

Daytime

PROPS

geological hammer

geological map of Western Australia and of Australia

small bag of stones

samples of rock discussed

'toilet roll' of geological time (see Tips for Guides, opposite)

samples: alfoil, nails, aluminium can, crystals, display seismometer, photographic film used in vault

information sheets on the Ionosonde towers

illustration of the ionosphere and how radio waves are reflected

PROMOTION

Experience the passage of time and its effect on rocks, landforms and life on earth. Take a journey of exploration to see local evidence of the creating of the landscape of Perth's hills.



Tips for Guides

This activity is high on intellectual attraction and low on physical exertion. It helps your participants to understand some of the structures of the Jarrah/marri and wandoo forest which are created by the geology, geomorphology and soil regime. It can be adapted to other land forms and eco-systems.

Participants are immersed in the geology and important features of the area they visit, and gain a sense of geological time. Begin by helping participants to realise that the earth's surface is forever active and changing. The key is that geological time is much slower than our time.

The Hills Forest Centre staff also captures interest by offering a visit to a seismic measuring station and the Vault, an underground facility that measures seismic movement and earthquake occurrences. You may be able to use photographs of local earth movements to hook your group's attention or call the Mines Department to identify nearby facilities and background resources. The activity could be based solely on the geology of the area and perhaps its provision of minerals for the local, state, national and international community.

This activity is popular in school holidays with parents wanting to do something interesting that is not computer operated, nourish an interest a child has for rocks and geology, and with elderly people who appreciate the bus trip.

The geological 'toilet roll' is made from 100-125 mm wide plastic surveying tape that is waterproof. At start of tape is a line and the words "NOW" in large red letters. Approximately 1 mm away is a black line that marks the beginning of civilisation on the planet.

The next black line, about 10 mm away, is the first appearance of *Homo erectus* through to *Homo sapiens*. Altogether there are nine special events marked by black lines on the tape, at a scale of 200 million years equals one metre. Brown lines are also marked on the toilet roll and are discussed as the group walks back from the beginning of time.

1. NOW
2. 4200 million years ago, when the Earth's crust cooled
3. 3000 million years ago, the formation of Yilgarn Block
4. 2600 million years ago, granite outcrops
5. 560 million years ago, quartz dolerite dykes
6. 500 to 375 million years ago, Darling Fault was active
7. 280 million years ago, Perth Basin sedimentation
8. 125 to 50 million years ago, Gondwanaland breaks up
9. 30 million years ago, laterization



Script



Hello everyone.

Today we are going to take a look at some of the rocks around us and see how they are the reason that our bush looks as it does. We'll cover the geology of the area, the important features of the area and the concept of geological time.

Show geological map of Western Australia and pinpoint where the group is standing. Use a geological pick as a pointer.

Here is a map of the geology of Western Australia and here is where we are standing. I spent all night colouring it in for you! (*mirth*)

Here are two important geological features; the Yilgarn Block and the Darling Fault. The Yilgarn Block is some of the oldest rock on the earth's crust, 3,000 million years plus, and it covers most of the State. The Yilgarn Block is connected to similar rock in South Africa, India and South America, because those continents were once joined with us, but broke apart from about 150 million years ago. We are standing above some of the oldest rock known on the earth!

You can see outcrops of Yilgarn Granite in Mundaring Road that you will probably pass if you drive home from Mundaring to Perth.

The Darling Fault occurred 500 million years ago and created the Darling Scarp. If you drove uphill to get here from Perth, you traversed the Darling Fault. This Fault has a maximum displacement of 14 kilometres. That means that the western side of the Fault has sunk to a depth at some locations of 14 kilometres, the distance between us and Kalamunda. This lower section was then covered with sands deposited by the sea and formed the Perth Basin upon which most of us live.

The Darling Fault is an important feature because it is so long; nearly 1,000 kilometres. It is dormant but is one the longest fault lines on the earth.

Show Darling Fault on map

Script

I know that using very large numbers, like 3,000 million for the age of the Yilgarn Block, is very difficult to understand. So now we will move to a place nearby where we can understand more about geological time.

Walk to nearby area with at least 30 metres of straight walk. Carry props: old army style shoulder strap small bag with about 20 small heavy local rocks; 'toilet roll' of geological time.

Pick young person.

Now, how old are you?

Young person replies.

Thanks! Not so old, hey?

Pick an older person.

And how old are you?

Older person replies.

Thanks! I'm ___ years old. And I hope to live to 80 or 90 years old. That feels like a really long time, doesn't it? But I have been talking in millions of years. Most people only think of millions as how much they are going to win in Lotto on the weekend. But how long is a million years?

I was really racking my brain for a way to explain this concept of geological time. But then, while I was seated in the smallest room of the house, it came to me! The way to do it was staring at me on the wall.

Pull the roll out of the bag and wave it in the air like a prized toilet roll.

You can see that I have put lines across the roll to indicate special periods in time. Now we're about to become Time Travellers. So hold onto your helmets and off we go, back in time.

Place end of roll on ground and anchor with local rock. Show line marked in large red ink "NOW" (No. 1).

This represents right now today (*Presenter looks at watch and gives time and date of the tour*) Our Time.

Let's move back in time and see what we can find.

Walk along tape to first mark (No. 2), about 20 metres.

Here is the point when the Earth's crust cooled. Take a look back to Our Time, and see how far we have come.

In the Big Bang theory of the origin of the Universe, dust and gases are circling before coalescing to form the beginnings of earth. Then as the planet cools the outer shell solidifies and forms the crust, and insulates and keeps the core molten (4,200 million years). So this is the point in time we are at.

We have reached the turning point as Time Travellers and it's time to head home. As we walk back, let's look at the geology and important events in time that relate to what we are standing on and what is around us.

Walk back to brown line 3,000 million years (No. 3).

We are at 3,000 million years go. This was the beginning of the formation of the Yilgarn Block, which consist of metamorphic rocks containing sediments dated at 3,300 million years old. The metamorphic rocks are not here at Mundaring, though, they are near Chittering.

Script

Walk back to 2,600 million years (No. 4).

At 2,600 million years, major granite upwellings occurred. They form the characteristic 'ball'-shaped rock outcrops that you may have seen as you drove here today. Here are some samples of this granite.

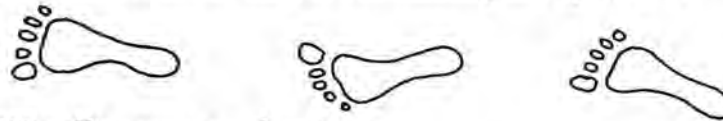
Hand out pieces of granite for all to see and feel.

Now these samples are granite that has started to erode. If you look closely, you can see three minerals in granite, quartz, felspar and mica. Because they all have a different hardness, they erode differently.

Hand out eroding granite.

Here is another kind of rock called migmatite. The name means 'mixed'. These rocks are formed as the molten granites from the base of the crust melt and break off the metamorphic rocks that they first come in contact with and mix them with the granites. Hence their name, migmatites, or mixed rock.

Let's walk a bit closer to our time, to 560 million years ago (No. 5).



Walk to 560 million years mark on tape.

560 million years was the time when quartz dolerite dykes were formed in this area. They are very hard rocks and we use them as roadbase.

Show pieces; demonstrate hardness by banging together.

What's next? – At 500 million years, the Darling Fault occurs and is active for 375 million years. Group has walked to No. 6 on the roll.

Walk on to 280 million years (No. 7).

At 280 million years, sedimentation in the Perth Basin begins.

Walk to 125 million years (No. 8).

125 million years ago the Darling Fault stopped moving. The Gondwana supercontinent began to break up. Australia finally moved away from South America, India and South Africa about 50 million years ago.

Walk to 30 million years (No. 9).

30 million years ago, there was a world-wide withdrawal of the sea from the land. The rocks of this area were exposed to the air, to sun, and to the rain. At this time Perth's climate was very different than now, more like Northern Queensland and Bali. Have any of you been to Northern Queensland or Bali? You know about the high, even temperatures and high rainfall.

So 30 million years ago it was like that in this area. The surface rocks were being heated, drenched and dried, constantly. This caused the surface rock to dissolve and mix and reset innumerable times. This caused laterization of the rock, that is, the formation of a hard 5 to 10 metre thick layer of 'coffee rock' over the top of nodule gravel. At the centre of each nodule is a grain of either ironstone or bauxite.

Hand out pieces of coffee rock and show some gravel.

You can see the nodules and the centre specks. Its interesting that now we are doing just the opposite of the natural weathering process – we mine the pea gravel, mix it with cement and build rammed earth walls. Mining leases to the south are for this gravel, from which ALCOA and Comalco extract aluminium. Here are some of the products of this process.

Script

Show aluminium can and alfoil.

If we wanted to, we could extract the iron but it is far more economical to mine iron ore from the Pilbara.

Show nails.

Now about this idea of crystallisation. It requires space, concentrated solutions, high temperatures and a long time. It is too complex to explain now so lets just look at some of the products of the crystallisation process.

Show quartz vein material that forms in the granites and quartz crystals.

Show rare piece of haematite crystallisation within the coffee rock.

And here we are back at Now. Let's go and look at the real thing, a granite outcrop.

Walk to granite outcrop.

This may be the first time that you have stood on something that is 2,600 million years old. Look at the exfoliation which is the characteristic way that granites weather; like an onion falling apart.

Sit on rock.

Here in this small area we can see the inter-connectedness of the forest and the rocks. Here the granite is breaking up; large pieces, medium pieces and fine grit. It collects in small hollows created by rainfall and temperature variation that causes the surface to break apart.

In the shallow dust, lichens and mosses have grown. Further away small herbs and heath have grown. Still further away small shrubs, large shrubs and then the first trees and behind them the larger trees that make the forest.

So the further away from the rock, the deeper the soils and the taller the trees. Lines of trees in the forest can be seen indicating depth of soil.

On that side of the rock outcrop you can see jarrah-marri forest; on the other side is wandoo. This tells us that on this side there are deep loamy soils that the wandoo needs to grow. This shows us the intimate link between geology and the forest.

Walk to next site.

Here we can see how the grit is being washed over the granite and is being polished. On the low ground, the water from the creek is increasing the rate of weathering and has formed a 'mini Wave Rock'.

Water is also damming up behind the silt and lush green herbaceous growth occurs. Can you see the droppings? – quenda and kangaroos feed here. This is also where traditional Aboriginal people would look for food and water. The granite outcrop is a very old supermarket with lots of action and influence on the forest and wildlife.

As we walk back we're moving over the laterite layer lying on top of the granite.



Walk back to starting point or to bus.

Thanks for joining our Rock and Roll tour, everyone. It has been a pleasure to share the tremendous geology of the Perth Hills with you. We have been considering the process of time and seen some of the links between the rocks and the plants. I hope that from now on you will see the rocks in the landscape differently and remember what an important influence they have on the make up of the forest.

SERPENT SCALES

TOPIC

Aboriginal culture; Heritage values

THEME/MESSAGE

Seeing the land from an Aboriginal cultural perspective is a special experience.

DESIGN TECHNIQUE

Sensory activity

THE EXPERIENCE

Through story, activity and discussion, participants experience new ways of perceiving and seeing the world through the variety of colours in the bush. A closer affinity with the bush and an Aboriginal perspective may result.

AUDIENCE

Adults; Family

Maximum: 25; minimum: 3

OBJECTIVES

Understand an Aboriginal dreaming story about the making of the bush landscape.

Increase ability to see bush colours and textures.

Appreciate some of the many subtle colours, tones and textures of the bush and its natural and cultural values.

OUTLINE

Guide tells Aboriginal dreaming story about the Waugal making the land.

Participants move through the bush to find a colour that matches their serpent scale colour swatch.

Participants discuss experience and new perceptions.

Conclusion: Seeing the land from an Aboriginal cultural perspective is a special experience.

SITE

A bush block in fairly good condition. Avoid using sites with litter and weed problems, or clean it up first!

TIME LENGTH

30 minutes

TIME OF DAY

Anytime of day

PROPS

'serpent scales' (colour swatches) in brightly coloured carrying bag (see Tips for Guides, below)

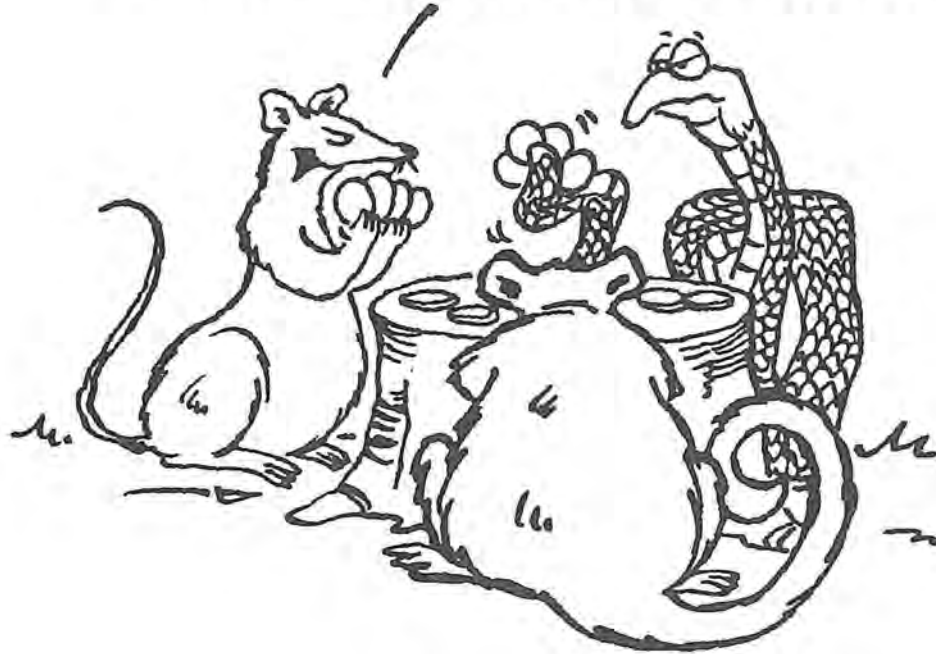
PROMOTION

Come along to see the bush anew, from an Aboriginal perspective. Awaken your senses and mind to the colours and textures of the bush.



Script

DO YOU HAVE ... GUMLEAF GREEN?



Hi folks.

I have brought you together here in this small natural clearing for a special experience of the bush. Let's get comfortable on these rocks and logs. Before we start exploring, I want to tell you a story that happened to me.

I was on a picnic with a group of friends at Pinjarra some time ago.

We were setting up our picnic site on the banks of the river – shaking out our rugs, lighting our gas barbecue and unpacking our lunch – when an old Aboriginal man came along.

We got talking. And he sat down to rest awhile.

As we talked, I noticed this brightly coloured bag.

Hold bag up to show to your group.

Curiosity got the better of me and I asked him about it.

He told me he was a Nyoongar – one of the group of Aborigines from the south-west of Western Australia. His bag held some symbols of a Dreaming story about the Rainbow Serpent – the Waugal. He told me he used the symbols to help teach others to see the Nyoongar way.

He told me a story something like this...

“In the Dreaming, the earth was like a big, featureless ball. It was brown and soft. It had no rocks, rivers or mountains or seas.

Under the earth, out near where York is today, slept the Waugals - huge rainbow-coloured creatures. The Waugal looks like a huge serpent with a maned head like that of a sea lion.

Gradually a Waugal stirred, flexed his muscles and slowly pushed his way through the soft, brown earth.

As he moved he formed gullies and ranges. Where he slept, his body weight and movements created hollows in the landscape. When it rained they filled with water to form lakes and pools.



Script

The sun rose to warm the land and woke the Waugal. As the sun rose higher, the Waugal became more active. The pushing and relaxing of his huge colourful body shed some of his brightly coloured scales. These colours scattered across the newly-formed landscape like broken rainbows.

Soon the earth had the colour and the form that we know today.”

“In this bag”, he said with a sigh, “I have some symbols that I have made to represent the Waugal's scales. Some of the bright colours of our Earth are reflected in this bag of scales.

I have used these scales for a long time now to teach young Aboriginal people to see the presence of the Waugal in the bush about us. I would like to give them to you to help other people to experience this story from the Dreaming and to see the presence of the Waugal in the bush about them.”

I was deeply touched. I promised to tell the Waugal story to others and to use the scales to help others see the bush and landscape from a traditional Aboriginal perspective.

So here are the symbols of the serpent scales in this special bag.

Now I'd like you to search for some of the Waugal's colours by taking and matching some of these scales to the colours of the bush around us.

Hand out the scales. Each participant should have three colours.

When you find the best colour match for each scale, if it is possible without damaging the bushland, bring that natural object back here to share with us all.

When exploring the bush around us, please don't go further than 200 metres from here as you need to be able to hear me call you back to share your discoveries. I'll call you in 10 minutes. OK, off you go to match the Waugal scales.

Walk around amongst the group. Encourage, help and monitor their efforts. Look for things up close and far away. After 15 minutes, gather group together.

Now, who would like to share what they found.

What was it like, looking so closely at the bush?

Who had trouble at first matching their colour?

Group responds.

Thanks for sharing your experiences. It's been very special. I'll collect the scales now.

Collect the scales.

There is much to see in the bush if we learn to look. One way of seeing the bush is by really focussing on the colours and textures. Often these colours are subtle, but beautiful. They can be seen with focus and time. That is what we have done today.

Aboriginal cultures have arisen from people living closely with their local bush over long periods of time. Many Aboriginal groups have their own stories or mythologies to explain the formation and changes within the bush. They offer many other rich ways of seeing and experiencing the bush. Through our story and activity, we can see 'the Dreaming' in the landscape about us.

I hope you enjoyed the activity.

Script



Tips for Guides

You can make your own 'serpent scales'. At a local hardware store, find paint charts in suitable outdoor bush colours. Take two of each chart. Paste the same colours back-to-back, then cut into scale shapes. You will need three scales for each person, so prepare 75 scales.

The brightly coloured carrying bag could be made with fabric of rich earthy tones typical of ochres used by Australian Aborigines. Use a small drawstring of wool, natural-coloured string or plant fibre.

Making the scales and bag should take about three hours.

This activity is adapted from 'Rainbow Chips' in the book *Earth Magic* by Kirk Hoessle and Steve Van Matre, which is available from The Institute of Earth Education.

The Waugal story is based on a Nyoongar Aboriginal Dreaming story told by Trevor Walley of the Aboriginal Tourism, Education and Training Unit of the Western Australian Department of Conservation and Land Management.

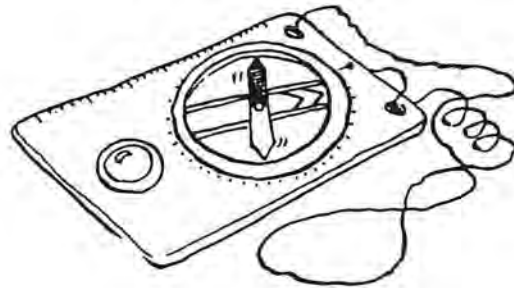
SIGNPOSTS

TOPIC

Management issues

THEME/MESSAGE

Direction finding in the bush is fun and rewarding as we learn to go safely and softly.



DESIGN TECHNIQUE

Problem solving activity

THE EXPERIENCE

Experience the wonders of finding your way in the natural environment by setting compass bearings, making observation, applying reason and discussing with others.

AUDIENCE

Adults; Family

Minimum: 5

OBJECTIVES

Gain knowledge of basic orienteering and use of compass.

Develop observational skills to appreciate surroundings and gain confidence in one's ability to find the way in the bush.

Feel confident to re-visit and explore, with a positive conservation outlook.

OUTLINE

Introduce activity objectives.

Demonstrate and compare various compasses.

Set compass bearing.

Encourage participants to complete crossword puzzle with answers found on their bush walk.

Demonstrate navigating without a compass using bush 'Signposts'.

Conclude with message that it is fun to find our direction in the bush.

SITE

A circuit walk through suitable landform

TIME LENGTH

90 to 120 minutes

TIME OF DAY

Daytime

PROPS

compasses for all participants

crosswords with compass bearings for all participants

pencils

blue and red plastic surveying tape

certificates for all children (see Tips for Guides below)

PROMOTION

You will never be lost once you understand how to use your observational skills. Dress comfortably for 1 1/2 to 2 hours of tickling your senses in the bush.



Tips for Guides

This activity involves children and parents in a range of emotive experiences that enhance their appreciation of the bush, while giving them the confidence to explore safely. It is ideal for family groups – parents enjoy discovering and learning as much as their children. The skills developed in this activity will enable families to continue to enjoy shared experiences.

Orienteering is the basis of the activity. Today there are several choices of navigational aids, including ground positioning systems (GPS) and compasses. But because these tools may not be on hand when needed, it is still important to know how to find direction by using the resources around us. In an emergency the only thing one may have is knowledge and commonsense.

The activity starts with a list of compass directions and a crossword puzzle which focuses on natural features. You can devise your own to suit your site, your local knowledge and the age of your participants, based on this sample crossword and script.

Choose an area with plenty of natural variation. Numerous short tracks leading in different directions make it more testing for participants choosing a compass direction.

Select natural features to discuss with the group, including those with interesting stories or those of which you have sound knowledge, and mark them on a rough plan. Choose features that appeal to a wide audience. Some possible features include evidence of the impact of humans on the natural environment; land forms and processes; plants, animals, habitat, bones, footprints, food, tools, shelter, customs, textures, smells or vistas.

Watch for good examples of bush signs that participants can use to find their way and note their location as well on your plan.

Be adaptable and prepared to interpret any particular interests the participants develop. Remember, this is their day to enjoy.

Once you have chosen the key features, make up a simple crossword puzzle for the children to complete during the walk. As they search for the answers, they gather at the key features and attend to your presentations. The answers are part of the information given by the Guide at each feature. You can conceal or disguise them as you choose, but do not make it so difficult as to spoil the fun side of the experience. You could have easier answers for the 'little people'.

Add the compass bearings (where the walk changes direction) to the crossword puzzle. Having three or four key features between each directional change helps to temper the headlong rush of the navigation enthusiasts and allows the tail-enders to catch up.

Now you can prepare your script. The sample Script below will give you some ideas.

Before the activity begins, walk your chosen course and, with one colour of plastic tape, mark the points where participants are to use their compass to find direction. Use a different coloured plastic tape to mark the key features where they are to gather and listen briefly to your incredible knowledge.



Tips for Guides

continued

During the walk, at each selected feature you will include the answer to the crossword puzzle in your comments, but do not call attention to it, unless it is a young group that needs help.

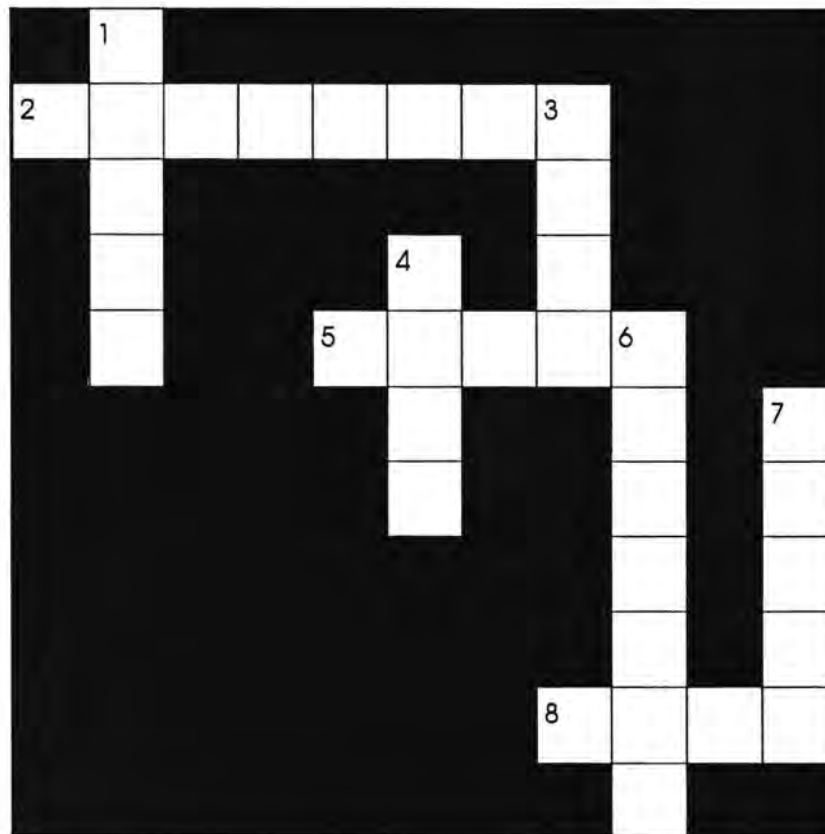
Encourage the children to observe their surroundings and take note of the landforms.

Certificates can be readily prepared in advance and are well received by children. Numerous design opportunities are available on computer. Photocopy onto coloured paper, or if you have the luxury of a colour printer, the certificate may well outshine the activity. See the Signposts Activity Certificate for an example.

Navigating without a compass

The main theme of this activity is finding direction, so along the walk you can demonstrate alternatives to using a compass. Many participants have never tried to use their senses to navigate.

1. Use a wrist watch with sweep hands. Point the 12 at the sun. North will be approximately half way between the 12 and the hour hand (the small hand).
2. In the southern hemisphere, animals shelter from the sun primarily on the southern side of trees. Look for disturbed ground where kangaroos shelter in the shade.
3. In wet areas, moss grows heaviest on the shaded south side of logs or trees.
4. A stick erected vertically in the ground casts a shadow. Mark the end of the shadow at the beginning and end of a 20 minute interval. Draw a line across the two points. The line runs east-west.
5. The sun still rises in the east and sets in the west.
6. At night, south is where an imaginary line extending from the base of the Southern Cross constellation to the horizon, dissects a similar line extending through the pointer stars.
7. It is said a quartz watch, without hands to point at the sun, when thrown over the shoulder has 'gone west'. Please don't teach the kiddies this one – but the grownups might appreciate it as a joke!
8. Rivers generally flow towards the sea.
9. Surveyed boundaries (fences) run north-south and east-west



Clues Across

- 2. Plants grow taller in this gully because there is more (_____) in the soil.
- 5. A fossil is a relatively recent object. True or false?
- 8. This land was submerged under the sea until (_____) million years ago.

Clues Down

- 1. Moss grows greenest on the (_____) side of logs and trees.
- 3. Stick nest ants maintain a constant temperature in their nest to protect their (_____).
- 4. These nocturnal mammals may live together in a colony in the hollow butt of a tree (_____).
- 6. The word (_____) means that this species of plant grows nowhere else in the world.
- 7. Termites have very good eyesight to help them move around the long dark tunnels in their nest. True or false?

Compass bearings

- First compass bearing: 120 degrees
- Second compass bearing: 260 degrees

Script



Gather around, everyone, for today I'm going to share with you some of the pleasures of the bush that I enjoy daily. It's a glorious day for a walk, and for a change you're going to lead, and your parents and I will follow.

Before we go, I'm going to show you how to use a compass. In about one and one half hours we will arrive back at this spot if you choose the right direction. So you are going to learn how to find your way using the compass. And I am also going to show you how to find direction using the Signposts. Yes, that's right. There are signs here in the bush that you have never seen before. They can help you if you ever become confused and feel you're lost.

We also have a crossword puzzle that you can complete on your walk. It's not difficult and I am even going to tell you the answers when we stop from time to time. You will need to listen carefully, though, to what I'm telling you.

Yesterday I went for a walk around the tracks we're taking today and I tied red and blue tape around some plants. Each time you find a tape I want you to stop. At each red tape, you will need to use your compass to determine which way to go. At each blue tape, there is something interesting that will help you answer your puzzle.

Let's have a look at the compasses you are going to use, and some other compasses that you may see from time to time.

Distribute compasses. Have some of the parents help if they've used them before. Give a compass to each child. If not enough, share them equally.

There are many different compasses. Some, like the ones you are holding, are made mainly from plastic and are used for orienteering. Others may be used by surveyors, yachtsmen, or pilots. Here are some different sized compasses for you to look at.

Show examples of compasses.

Regardless of their size, their job is to help the user to find direction.

Hold your compass flat on the palm of your hand. Do you see that as you turn your hand, the needle on the compass stays pointing in the same direction. This is magnetic north.

Compass readings or bearings are taken from the number of degrees from the north. Can you find marked on your compass a painted arrow? On mine it is coloured red.

Script

Now suppose you want to travel at 90 degrees. Turn your compass until the 90 is directly under the compass needle pointing to the north. The red arrow is now pointing at 90 degrees from magnetic north or the direction you would travel.

Or suppose you wish to know the degrees from north of any feature. You must point the red arrow at the feature, for example, a rock or tree, and you then read the degrees directly under the compass needle.

Let's practise this by pointing the arrow on your compass down this road. When you have read the degrees from north, please tell me your answer.

Group practices taking readings. Guide moves around and helps them.

Now here are the crossword puzzles and pencils.

Hand out crossword puzzles, marked with compass bearings for each directional change, and pencils.

The crossword puzzle has a list of compass bearings to follow until you come to a feature that is marked by a coloured tape. When you find the first coloured tape, wait for me. When we have all gathered, we will discuss some very interesting things about that feature. If you listen carefully, you will learn the answers to your crossword puzzle.

Now, what is the first compass bearing on the crossword puzzle? Yes, we'll start by walking down the track at 120 degrees. Be sure to stop when you arrive at a blue tape.

Participants set off.

Guide uses own script for selected features, compass bearings and Signposts (bush navigation signs) along the chosen route.

When back at the starting point, gather all the participants together.

I'm really pleased to see that you've all arrived back safely. It's obvious to me now that you have all learned to find your direction across the land or through the bush. You can use the compass and you can observe the signs that nature provides to give you direction. How do you feel about walking in the bush now?

I've really enjoyed sharing the experiences of our adventure and hope that you have had a good time as well. Have you all completed your crossword puzzles? If you listen carefully for a few more moments, I will give you the correct answers.

Read out correct answers.

I'm proud that you have all indicated to me by the interest that you've shown today, that you will be assisting me in the future to conserve our wonderful heritage. I would like to mark this occasion by giving each of you a Signposts Activity Certificate to hang in your bedroom. If you come forward now I will print your name on it for you, and then we've finished.

Distribute certificates.

Thank you for participating in our Signposts activity. I now feel sure that you will agree with me in saying that direction finding in the bush is fun and rewarding. Farewell! Please remember to "go safely and softly".

SCRIPT DETAILS FOR SAMPLE CROSSWORD WITH COMPASS BEARINGS

Starting point: At red tape, give compass bearing: 120 degrees

Feature 1: Moss covered logs

Point out age, moisture content, decomposer organisms.

Feature 2: The mound of stick nest ants

You may explain that temperature and humidity is controlled within the nest by ants moving the sticks or stones covering the entrance. The size of the opening determines the amount of air flowing into the mound, which affects the temperature. The ants want the best conditions to incubate their eggs so they can reproduce and survive. The correct humidity within the nest promotes the growth of food algae. etc.

Feature 3: Burnt out hollow butt of a tree

Explain how this provides shelter for bats, birds and insects.

Feature 4: Unusual or attractive flora

Explain evolution, reproduction, protective legislation.

Red tape: next compass bearing, down the track at 260 degrees

Wow! There are many tracks here. Which one shall we choose? This will really test your ability. Use your compass and proceed down the track at 260 degrees. See you at the next blue tape.

Feature 5: Fossils

Discuss natural processes, evolution, variation.

Feature 6: Gully system

Discuss soil structure, moisture, plant vigour, salinity, fire risk, wildlife habitat.

Feature 7: Termite nest

Discuss termite predators, plant decomposition, resins used by Aboriginal people, clay material used by early settlers.

Feature 8: Landform

Explain geomorphology, natural processes, natural history.

ANSWERS TO 'SIGNPOSTS' CROSSWORD PUZZLE



Across

- Plants grow taller in this gully because there is more moisture in the soil.
- A fossil is a relatively recent object. False.
- This land was submerged under the sea until five million years ago.

Down

- Moss grows greenest on the south side of logs and trees.
- Stick nest ants maintain a constant temperature in their nest to protect their eggs.
- These nocturnal mammals may live together in a colony in the hollow butt of a tree. Bats.
- The word endemic means that this species of plant grows no where else in the world.
- Termites have very good eyesight to help them move around the long dark tunnels in their nest. False.

Signposts Activity Certificate



Awarded to

(participant's name)

*in anticipation of a lifetime of support to
conservation of the natural environment.*

Presented by

(name of the organisation running the activity)

(date)

SIGNS IN THE SAND

TOPIC

Animals

THEME/MESSAGE

The bush is home for a diversity of wildlife: the evidence is all around us.

DESIGN TECHNIQUE

Wildlife observation activity

THE EXPERIENCE

See the signs left by creatures in the bush (tracks, scats, scratchings, diggings, burrows), hear bird calls and the sounds of animals moving around us, and get a glimpse of what it is like to live here.

AUDIENCE

Adults; Teens

OBJECTIVES

Gain knowledge of the bush as home to a variety of interesting creatures.

Know what and where to look for signs of animals.

Increase observation and interpretation skills of participant of animal form related to its movement and its track; and animal type related to type of scat, bird, reptile, mammal (carnivore, omnivore, herbivore).

Able to identify a few species from the signs observed.

Appreciate that the bush is full of life and variety, even though creatures may not be seen.

OUTLINE

Introduce bush habitat and animal adaptations.

Discuss why it is difficult to see animals.

Outline the art of interpreting signs left by animals.

Take a bush walk along a sandy track that has been raked or smoothed over.

Observe tracks and scats: analyse, summarise and identify.

Conclude with message that 'the bush is home for a diversity of wildlife'.

SITE

Bush with evident animal activity

TIME LENGTH

60 minutes

TIME OF DAY

Daytime, preferably early morning when tracks and scats are fresh

PROPS

a means to smooth a sandy track (towed behind a 4WD vehicle or dragged when walking)

binoculars: at least one pair for every two participants (optional)

ruler and clipboard for each group of participants
2 to 5 lengths of plastic marking tape attached to clipboards

handout illustrating common local mammals, birds, reptiles and invertebrates

pictures/sketches of animal tracks, scats, burrows and digs, including feral animals such as rabbits, foxes and cats

PROMOTION

Ever wondered what animals there are in the bush and why you rarely see them? Here is your chance to look for tracks and traces of native animals. Join local bushman (guide's name) to explore the local bush community and discover that it is home for a diversity of wildlife. Don't forget your hat and walking shoes for this two-hour activity.

Script



Welcome to Signs in the Sand.

We are going to use our powers of observation to pick up clues that will help solve the mystery of what creatures inhabit this particular bit of bush.

Who has been out in the bush and walked around and thought to themselves – where are all the animals? You’ve seen all sorts of different animals in wildlife books and on television documentaries. They must be here!! Are they tricking us? Well, maybe.

By learning what signs to look for and then looking closely for the clues left by the bush inhabitants, we can appreciate this area as a habitat for wildlife.

First let’s look at this bush as a home for wildlife – that is what scientists call a habitat. What are some words to describe this bush as a place to live as a habitat?

Possible group responses: hot, dry, prickly

Yes, it’s all that. Now, what are some of the essential things we all need to survive?

Possible group responses: food, water, shelter, companions

Let’s look at water in a hot, dry environment like this. You rarely see water here in rivers, streams or water holes. Animals have to conserve water by retaining it in their bodies.

Any ideas on the adaptations animals can make, to avoid water loss?

Group responds.

They can stay out of the sun by sheltering in burrows and being nocturnal, that is, coming out only at night.

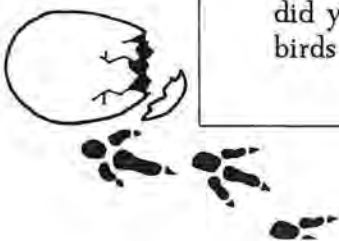
They could retain their water – did you know that reptiles and birds don’t pee?



Tips for Guides

This script has been designed for an arid land environment. If you know about the animal inhabitants of a good bush, beach or wetland area, you can easily adapt the activity.

The most interesting area is one with signs of a variety of animals. Prepare for your walk by scraping clean a sandy track in the late afternoon to show animal prints in the morning. You can do this by dragging a tyre behind a 4WD vehicle or a wheat bag behind you as you walk the track. Alternatively, you can put sand down on a known animal pathway.



Script

The cold blooded, solar powered creatures known as thermo-regulators, regulate their temperature externally in the sun rather than internally through perspiring.

Or they may have a thick water proof skin that does not perspire, to retain moisture.

Many creatures don't need to drink as they get enough water from their food, particularly from plants and insects.

So given these special adaptations to retain water in this hot, mostly arid environment, these animals are going to be very difficult to see. We can't stake out the local water hole, can we? So how do we find out what's here?

Group responds.

All animals in the bush leave signs.

If an animal walks on the sand, it leaves tracks.

If it lives underground, it digs a burrow.

If its food is ants or roots or ground grubs, it leaves diggings and scratchings.

When it eats, and passes wastes, it leaves scats (animal droppings or poo).

Birds of prey, like eagles and owls, throw up 'cough balls' of bones and fur of small mammals.

Now, I know we all think it's pretty funny looking at animal droppings, but they are a valuable source of information to a zoologist. You can often identify an animal from the shape of its droppings and find out what it has been eating.

A recent fauna survey found the droppings of a mulgara, a rare Australian carnivorous marsupial. Subsequent trapping positively identified the animal in an area where it had not been previously recorded.

Now, let me demonstrate how I identify tracks and then I'll give you some illustrations to help you with your own identifications. There are some tracks here.

Leader shows tracks on scraped area of ground nearby.

We can get an idea of the size of the animal from the size of the foot in the track.

We can tell whether it is a bird, a mammal or a reptile footprint from the pattern of track and the shape of the footprint.

We can guess whether it was moving quickly or slowly, based on the space between its feet.

We can decide whether it is heavy or light, based on the depth of the footprint.

Leader identifies tracks or makes an informed guess, drawing on what he/she knows about the species that inhabit the area.

Now here are some pictures of some of the common mammals, reptiles, birds and invertebrates that live in this area. There are also some illustrations of the signs that these creatures leave. Put them on your clipboard.

Leader distributes illustrations of animals and tracks, clipboards with lengths of tape attached.

OK, find a partner and we'll start to explore the bush for signs of animals.

Group forms into pairs.

When you look at the tracks you find in the sand, and the scats, diggings and burrows in the bush, see if you can work out which creature may have left

them. Once you have a preferred choice, you can 'truth' it by asking yourself some questions about that creature.

1. How do you think the animal was moving, based on the pattern of the track?
For example, quickly or slowly, hopping, sliding or scampering
2. Is it a bird, a mammal or a reptile?
3. How big is the animal? Check the depth of track and softness of sand; the size of the burrow or hollow.
4. Does the animal climb, burrow or dig? Check the footprint, claw marks, scratchings.
5. What does the animal eat? Examine scats and cough balls for plant fibre, insect casings, bones and fur.

We will meet back here in 20 minutes to discuss our finds. Use this tape to mark your signs so you can take all of us back to hear your story of your animal.

Pairs move along sandy track and into bush.

Leader calls group back after 20 minutes.

Successful tracking? Who would like to show us their track and tell us their deductions?

Group follows pairs to discuss tracks, scats and burrows.

Well folks, we have seen quite a bit of evidence of animals in this bush and we have identified some of the creatures. Now you know where to look for signs of animals and how to interpret what you find. I guess now you would agree that the Australian bush is home to many different animals. They have adapted to this environment and can find food, shelter and protection here.

I hope you enjoy many more hours as a bush detective and that you care for the bush – because it is home for many bush creatures.



References: *Tracks, Scats and other Traces*
A Field Guide to Australian Mammals
Barbara Triggs Oxford University Press Australia ISBN 0 19 5536436

STRANGERS IN THE NIGHT

(SPOTLIGHTING)

TOPIC

Animals

THEME/MESSAGE

Most Australian native animals are active at night to avoid predators, dehydration and dependence on surface water holes in this mostly arid continent.

DESIGN TECHNIQUE

Wildlife observation activity

THE EXPERIENCE

Walking in the bush at night – all senses on the alert in anticipation – what will we discover?

AUDIENCE

Adults; Family; Teens

Maximum: 20

OBJECTIVES

Knowledge of some native nocturnal animals and their behaviour.

Be able to apply spotlighting techniques and locate animal eyeshine.

Appreciate nocturnal animals, their behaviour and habitat and the fun of spotlighting.

OUTLINE

Introduce spotlighting technique.

Apply the technique of looking for eyeshine on an evening walk.

Observe animals and discuss behaviour.

Experience a night quiet spot without lights.

Conclude with message that most Australian animals are active at night.

SITE

Bush with tree and log hollows where nocturnal animals are likely to occur; where kangaroos are known to graze (look for 'roo poo')

TIME LENGTH

60 minutes

TIME OF DAY

Night-time

PROPS

spotlight and battery

back pack

insect repellent

binoculars

good quality torches

lists and illustrations of local animals: photocopy mammal books or mark pages of field guide. It may be possible to use slides and tape recordings at some venues.

cigarette lighter

pocket mirror

PROMOTION

Strangers in the night! Discover the local night life on a spotlighting walk and meet some Australian bush creatures in the wild. Bring a good quality torch if you have one and wear walking shoes and night clothes.

Script



Welcome along on our spotlighting walk. We hope to meet some strangers in the night. You may know that Australia has over 40 species of macropods – the kangaroos, wallabies and bettongs. And these are just some of the more than 200 marsupials found in Australia.

You may also be wondering why you don't see too many Australian animals. Well, that is because most of them are only active at night. They are nocturnal. Why is that, do you think?

Leader invites group response.

Yes, most Australian native animals are active at night to avoid predators. Predators are animals such as the dingo, the native cats (also called chuditch or quoll) and more recently the feral cat and fox that were introduced by European settlers in the 1800s.

These predators have also adapted to nocturnal prey. It is really the heat and potential dehydration in our mostly arid continent that have forced our native animals to find refuge in the night. By avoiding the heat of the day, they are not dependent on water holes which are scarce in the Australian bush.

Tonight we are looking for these elusive animals. We are going spotlighting. First what is the spotlighting technique? It is simple and inexpensive. You don't need a fancy spotlight like the one I have here, but when you find the animal, this one helps me to illuminate it.



Script

Any good quality torch will do. Hold it up close to your eye and look along the beam. Direct the beam onto and up the trunks of trees, along the branches and into the foliage like this.

Demonstrate directing the beam.

You can also scan the ground.

Demonstrate scanning the ground.

What we are looking for is animal eyeshine. Nocturnal animals have concave retinas that are specially adapted to maximise the intake of light. Their retinas are like mirrors. It is like putting a candle in front of a mirror.

Demonstrate with cigarette lighter and pocket mirror.

When the spotlight is picked up by the animal's eyes, they shine – usually red for mammals, but spiders shine like diamonds. Hopefully we will see some tonight.

Now with a group like ours we will need to walk quietly in single file. Keep some of your torches down on the track and move the others slowly and methodically looking for eyeshine in the bush. Once you spot it, don't 'fry' the animal with all the torches. Just keep one or two torches on the animal until we can approach closer and try the spotlight on a wide, softer beam.

What are some of the animals we might see here tonight?

Invite group response.

Yes, we could see some of those animals. Here are some photos and line drawings of the ones we are most likely to see.

Show illustrations of local animals.

Well, let's go see if we can meet some of these strangers of the night.

Lead group along track. Help group to use torches correctly. Spot animal.

There is the eyeshine. Right, only one good torch beam or we will blind the animal.

What is it? It is furred, the size of cat, with large ears and a long, curled, semi-naked tail. Yes, it is a brush-tailed possum.

What is it doing? It's holding onto the limb with its curled tail – notice how it uses the tail as another hand. The other hand clutching a branch to pull it towards its mouth to eat the flowers. So it's a plant-eater.

Where does it live? Yes, look, there is another possum in the neck of that broken branch. Possums live in tree hollows, and come out to forage for fruits, leaves and flowers at night.

Can you see the scent gland on its chest? That brown stain is rubbed against the branches to mark their territory.

Let's continue to look for others.

Group may find spiders (diamond twinkle from eyes), night birds such as boobook owl, tawny frogmouth, owl nightjar, burrowing frogs after early autumn rains, ghost crabs along the beach.

Leader stops at a quiet night spot.

Well, we haven't been too successful in finding strangers in the night. Let's find out why they are better at avoiding us than we are at tracking them down. Form one big circle here, thanks, folks. Now turn off all the torches. Turn around and take two giant steps forward.

Script

Now see if you can be still and quiet for five minutes. I'll tell you when it's time. We'll see what it's like to be a nocturnal bush animal – a stranger in the night.

After five minutes, call the group together again.

Anyone want to share how it felt to be a nocturnal animal? What special abilities would you need?

Group responds - acute senses, secretive behaviour, detailed knowledge of habitat.

Great, thanks for all those ideas. We'll walk back to our starting point, now, practising our spotlighting technique.

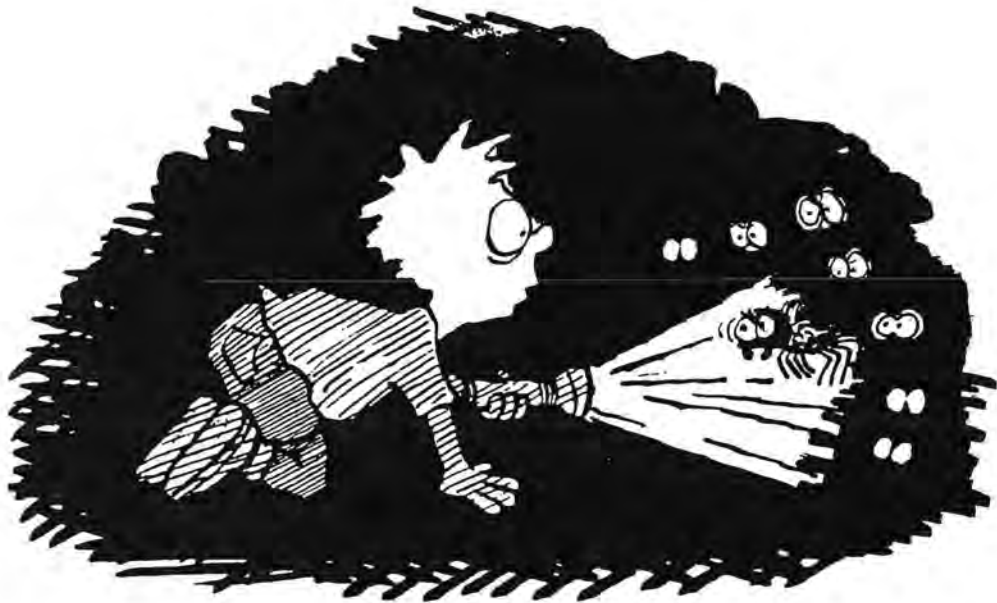
Walk back to starting point.

Well, we are back where we started out, folks. I hope you have enjoyed spotlighting for strangers in the night and that you will remember the technique to try with other friends.

Tonight we have realised that most Australian native animals are active at night not only to avoid predators, but also to avoid heat and dehydration. This makes them less dependent on water holes which are scarce on our mostly arid continent.

If we want to see them when we go bush, we have to be quiet, observant and considerate. After all, it is their home. Care for the bush, folks and it will care for you.

See you later.



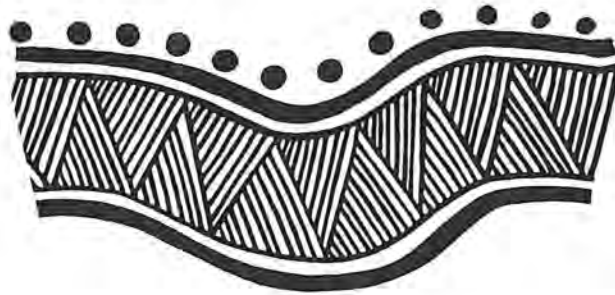
TOTEM BINGO

TOPIC

Aboriginal culture

THEME/MESSAGE

Totems are important in Aboriginal culture in learning to connect with and care for the land and its resources.



DESIGN TECHNIQUE

Concept exploring activity

THE EXPERIENCE

Fun and excitement of a bingo style game where players meet each other and learn some Nyoongar Aboriginal words while developing an empathy for their own special creature or plant (their totem).

AUDIENCE

Adults: Family

Maximum: limited only by venue and sound system; minimum: 5

OBJECTIVES

Gain knowledge of totems and people's responsibility for them.

Appreciate the role of totems in Nyoongar Aboriginal culture.

Learn some Nyoongar Aboriginal words.

OUTLINE

Explain Aboriginal concept of totems.

Go over rules of game.

Play game, applaud winner.

Discuss participants' feelings about their totem.

Participants introduce themselves and their totem.

Give winner his/her prize.

Conclude with the message that totems help us to connect with and care for the land and its resources.

SITE

Suitable for indoors or outside

TIME LENGTH

90 minutes

TIME OF DAY

Day or night

PROPS

name tags

Totem Bingo game forms for all participants

pens or pencils for all participants

list of all Nyoongar and English names of totems in the game

prizes: chocolate native animals, for example, a chocolate bilby or Fredo frog or Yowie

PROMOTION

Come along and receive an Aboriginal totem, learn some Aboriginal words and how you can empower your totem and yourself.

Script

Good evening, everyone!

So that we can have some fun meeting each other and learn something at the same time we've got a short game planned. To play this game, all of us need our name tags on. If you're not wearing yours, please put it on now.

You may have noticed an Aboriginal word printed on your name tag. This will be your adopted totem during this game.

Now, what is a totem? And how does a person get their totem? A totem is something with which you are especially identified.

Many of you will have heard of or seen native American totem poles – wooden poles with symbolic figures (usually birds or animals) carved as tribal symbols. Here in Australia, Aboriginal people also have totems. Each Nyoongar person will inherit, be given or take on a totem with which they associate through ritual. Ritual is a ceremony that gives power to the participants and to the totem. Once you have a totem, you are responsible for empowering the totem through ritual to maintain its wellbeing.

Traditionally, a person is born to their totem which is usually a plant, an animal or a bird. A newborn baby is often given the totem of a deceased clan member who has passed through the final stages of their funeral ceremony.

Totems are very important to Aboriginal people. You are responsible for looking after your totem. You are not allowed to eat it or cut it up (for instance, if it was a kangaroo) but you may be allowed to eat certain parts of it.

There are Dreaming stories associated with totems and the person with the totem is a keeper of those stories. The totem holder looks for signs of the health or otherwise of the totem and may perform rituals for its benefit.

Today, many Wadjelas (a Nyoongar word for white people) ask for a totem so that they can feel closer to nature. They like to have a role to play in caring for a part of nature and culture.

Now, the idea of Totem Bingo is for each of us to meet every other person in this room to find out their totem as quickly as possible. Each person receives a Totem Bingo game form like this.

Hold up Totem Bingo game forms before distributing them.

You are to meet with as many people as you can and have them sign their name and their Nyoongar totem name. The trick is to be the first with a game form full of signatures.

The first person to get a full set of signatures calls out "Totem Bingo". There will be a small prize for the winner.

Pass out Totem Bingo game forms.

Do you all have your name tags on, so you know your totem? Is everyone ready? OK, go.

Guide encourages players.

A player calls out 'Totem Bingo'.

It looks like we have a winner! Come over here so we can check your game form. Well done (...name...). We'll present your prize in a moment.

But first, let's talk about how all of you are feeling now about your totems? How do you think you ought to relate to them? What thoughts do you have about them? Perhaps you have never seen your totem.



Script

Leader should guide discussion towards: I'd pay close attention to it; I'd be aware of patterns of its growth and decline; I'd be more aware of its presence in bush areas; I'd find out more about it; I'd find out what dreaming stories there are about it.

That's great, you are all interested in your totems.

Now, where is our winner? Come up here (...name....) and help me with some introductions. Here is a list of the Nyoongar and English names for each totem. I want you to read them out, one by one. When you read the totem name, that person will stand up and introduce themselves and give their totem name in Nyoongar and English. For example, my name is (...leader's name...) and my totem is Yonka the kangaroo.

Winner reads totem names; participants stand, introduce themselves and give their totem name in Nyoongar and English.

That's great, (...winner's name...). Thanks for your help, and here is your prize.

Give winner his or her prize.

We've had a chance to get to know one another and learned some Nyoongar words and totems. I hope that you will find out more about your totem in the next weeks and months. And think about what you could do to empower your totem.



NAME _____

TOTEM _____



NAME _____

TOTEM _____



NAME _____

TOTEM _____



NAME _____

TOTEM _____



NAME _____

TOTEM _____



NAME _____

TOTEM _____

TOTEM BINGO GAME FORM

TOTEM BINGO

Players' Signatures	Nyoongar Totem Names	English Totem Names
_____	yonka	grey kangaroo
_____	baio	zamia palm
_____	balga	grass tree
_____	poolgarla	bull banksia
_____	wetj	emu
_____	yoorn	bobtail lizard
_____	wandoo	wandoo
_____	bardi	bardi grub
_____	koolbardi	magpie
_____	mooja	Christmas tree
_____	warrine	native yam
_____	jarrah	jarrah
_____	goomal	ringtail possum
_____	tjitti tjitti	willy wagtail
_____	karda	racehorse goanna
_____	quenda	bandicoot
_____	chuditch	native spotted cat or chuditch
_____	quokka	quokka (small wallaby)
_____	mardo	carnivorous marsupial mouse
_____	numbat	numbat
_____	yangeti	typha or bulrush

TUNING IN

TOPIC

Heritage values

THEME/MESSAGE

Tuning into nature is a turn on.



DESIGN TECHNIQUE

Sensory activity

THE EXPERIENCE

Sitting quietly in the bush, tuning into breathing, sounds and other senses. This is a guided meditation to tune into our senses and the bush about us so we can really experience it.

AUDIENCE

Adults; Teens

No limit on group size if your voice can carry

OBJECTIVES

Knowledge of the five senses and how conditioning can dull the richness of our sensory experiences

Be able to participate in a short guided meditation; to focus on breathing and the senses of sound and smell; to heighten environmental awareness; to relax.

Appreciate being in the bush and the diverse sensory stimuli

OUTLINE

Introduction: We respond to our environment through senses and feelings.

Guided meditation; focus on breath, silence, sound patterns, numbers and origins.

Open eyes and share responses.

Conclusion: Through our senses and feelings we can have a wealth of experiences in the bush if we only take the time to tune in. Tuning into nature is a turn on.

SITE

Any bit of bush or garden

TIME LENGTH

20 minutes

TIME OF DAY

Anytime day or night

PROPS

Something to sit upon – log, rock, dry ground, plastic bag, jacket

PROMOTION

Come and participate in a quiet, reflective guided experience – tune in to nature and discover something about yourself and the environment.

Script

Hi everyone!

Today we are going to tune into our senses and the bush about us so we can really experience it. This activity is not about doing, it is about being. Here is a special place where we can sit quietly.

Find a comfortable spot to sit, somewhere in front of me but not more than 10 metres away, so you can all hear me. Sit more than a metre or two apart from each other, and face in the same direction as I am. That means I will be standing behind you. Now get comfortable, as we will be here for about 10 minutes.

People are complex organisms. We have five senses to collect data. We associate emotional responses to our sensory experiences and store them in our conscious and subconscious mind. Sometimes these past experiences can block us from experiencing the intense or subtle aspects of our environment. We tune out or repress or avoid many experiences that could be very enriching. The bush can be like that for some of us. This activity is a way to tune in to nature and discover something about ourselves.

Close your eyes and listen to the sound of your own breathing.

In...out...in...out... Let your thoughts come and go. Don't dwell on them. Focus on your breathing. Become just your breathing. In...out...in...out

Wait for at least 60 seconds.

What you are becoming aware of is 'the breath of life'.

Now let's experience 'the rhythm of life'. Focus on the sounds around you. Don't name them. Just listen to them as if they were musical notes. Listen for the high and low pitch, treble notes and base notes. Listen to the patterns of the bush symphony.

Wait for at least 60 seconds.

Think about all the different instruments there are in our bush orchestra. We can hear the wind in the trees.....the birds.....rustles in the bush.....chirping grasshoppers and singing cicadas. Tune in. Concentrate on what you are hearing.

Wait for at least 60 seconds.

Open your eyes when you are ready to.

Wait 60 seconds.

Does anyone want to share their responses to our guided bush meditation?

Wait for responses.

For me, something always seems to happen in this activity that I don't expect. The wind picks up or a bird or plane or train passes through.

There is a wealth of experiences for our senses and feelings waiting for us in the bush, if we only take the time to tune in to nature.

Tuning into nature is a turn on. I hope that you will take this technique away with you. And, if we care for the bush and protect the biodiversity of life, the bush will continue to provide a treasure trove of rich experiences for us all.



Tips for Guides

This activity can be particularly calming for you and your clients. It gives you a rest from 'yakking' and helps settle everyone down while you take them on this guided meditation.



WATCHING WAVES

TOPIC

Landscape/seascape

THEME/MESSAGE

Wave action on our coasts is a continual, ever-changing process.

DESIGN TECHNIQUE

Concept exploring activity

THE EXPERIENCE

Watch waves, wave actions and their effects.
Discuss coastal management issues.

AUDIENCE

Family

OBJECTIVES

Knowledge of the relationship between wave action and a coastline.
Understand coastal ecology concepts of waves, wave sets and tides.
Be able to suggest ways of protecting unstable coastlines.
Appreciate the need to care for our coasts and coastal processes.

OUTLINE

Introduce wave watching activity.
Observe tide and wave sets.
Draw in sand to demonstrate wave formation and patterns in deep water, in calm weather (constructive wave), and in stormy weather (destructive wave).
Participants build wave barriers and observe wave actions and effects.
Discuss waves and coastal processes, and coastal landscape management.
Conclusion and message: 'The wonder of the way of waves and the ever-changing coastline'.

SITE

Beach with a dune from which to watch waves and observe the coastline

TIME LENGTH

60 minutes

TIME OF DAY

Daytime

PROPS

stick for tide indicator
beach flotsam and jetsam to construct barriers
stick for drawing wave diagrams in the sand

PROMOTION

Come wave watching to discover the patterns behind the ever-changing coastal processes. Try your hand at coastal sand management.

Script



Hi, Everybody!

Today we are going to explore coastal processes. That means - we are going wave watching. We will discover the ever-changing pattern of waves and beaches and how to live with them.

Let's go look at the waves. I've found a good vantage point up ahead where we can see the waves and hear a little about waves before having a go at our activity that will reveal so much more.

But first I'll just put this stick here to mark where the waves are running up to on the beach.

Guide places stick at top of wave wash.

More about that later. Let's go to our wave watching spot.

Guide moves with group to top of dune.

Watch the waves for a short time. Which way are they breaking? To the left or right as they approach the shore?

Group responds.

Yes, that's right. To the (...to observer's left or right...).

Do they come in sets, that is, in a series of larger waves separated by a set of smaller waves that gradually build up to a set of larger waves again? If they do, then how many are in each set? When would be the best time to take a surfboard or small boat out through the waves?

Group responds.

Most waves are formed by wind moving over the sea's surface. The sun heats the oceans and the air above the water surface is warmed and rises. A partial vacuum is created above the ocean surface. Nearby, cooler air moves in to take its place, and that creates wind.

Guide lays a stick flat on the sand surface and drags it back and forth to make a small ripple in the sand. Behind it, Guide makes another larger ripple and then another, even bigger ripple.



Script

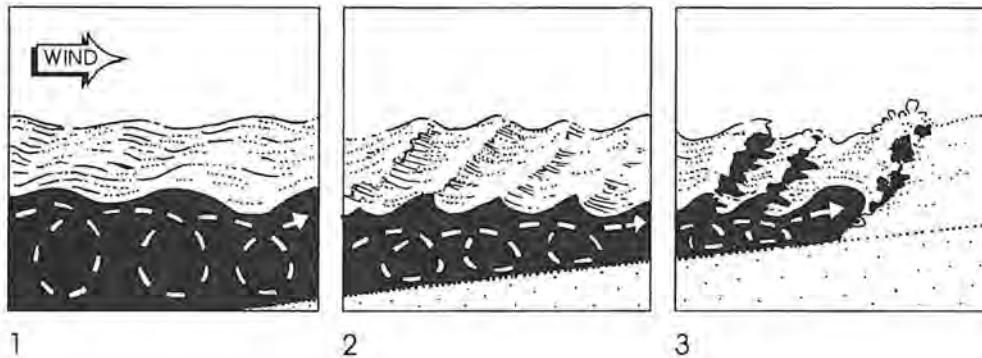
Guide indicates sand sketch and explains:

The wind moving over the sea pushes the water into surface ripples. The more the wind blows, the bigger the ripples grow until finally a wave is formed. Of course, large waves can also be caused by movements in the Earth's crust from volcanoes and earthquakes.

In deep water, waves are circular movements of water that travel across the ocean's surface. Now why do we get breakers at the coastline?

When a wave reaches shallow water, the circular motion is disrupted by the sea floor. The wave crest slows down, then lifts up and falls forward to make a breaker.

Guide draws a sand diagram of wave, sea floor and shore cross-section (below).



How the waves impact on the shore often depends on the time of year as well as what the coastline is like – for example, whether it is natural or built. What can you see along the coastline here that may indicate the actions of waves?

Possible group responses: gutter in sea floor; sand bar; sand dune, jetty or groin
 Waves that reach the shore in calm weather are usually in a regular pattern of smooth, rounded waves. This gentle wave action deposits sand on the beach.

Waves that reach the shore in stormy weather are more random. These steep, high, storm waves erode the beach sand.

The action of waves on the shoreline is a continual, ever changing process.

Now let's go check our stick to see if the waves are swamping it or no longer reaching it. Then we can tell if the tide is rising or falling.

Group moves to stick.

What do you think? Is the tide rising or falling? Do we need more time to be sure?

Guide invites group discussion.

Now we are going to try some things to find out for ourselves about waves and coastal processes. We need to be in small groups with two to five people in each group.

The idea is to collect bits and pieces from the beach – shells, stones, pebbles, seaweeds and grasses – so you can construct barriers, islands and groins.

Groups form and gather flotsam and jetsam and return to Guide.

Now station yourselves at the end of the wave wash on the beach.

Script

We are going to experiment with different designs and different construction materials. So build two sets of sand barriers, one set at the gentle end of the wave wash zone of infrequent waves, and the other set in the torrid middle of the wave wash with destructive waves. Both sets will have one barrier of vegetation and one barrier of rocks.

Group builds two sets of barriers.

Watch what happens. Compare the effects of the different wave actions on the two sets of barriers. How long does it take to destroy a barrier? How many waves does it take?

Guide invites discussion.

Coastal processes are ever-changing. That's nature's way. Watching waves is full of wonder. Watching waves also helps us to discover the patterns and effects of gentle and rough waves on our coastline, and the effects of our coasts on waves.

Perhaps if we study them enough we would be able to make waves to maintain or stabilise our beaches? But should we? Maybe we also need to experience wild unstable beaches to discover the wild person inside ourselves; or to be humbled by the way of the waves.

Thanks for wave watching today with me.

YOWIE YARN

TOPIC

Animals; Heritage values

THEME/MESSAGE

We need natural places to protect nature's mysteries.

DESIGN TECHNIQUE

Concept exploring activity

THE EXPERIENCE

See flickering firelight, hear a spooky yarn; consider the mysteries of nature and of human perception. Feel a sense of wonder at the potential discoveries in natural places.

AUDIENCE

Adults

Maximum: up to 100, depending on venue and sound system

OBJECTIVES

Gain knowledge of a 'mythical' creature and of human responses to apparently bizarre events.

Apply rational thought to bizarre phenomena while maintaining a sense of wonder.

Appreciate the need to care for all life forms, not just the big and bizarre, the rare and endangered, the furred and feathered.

OUTLINE

Tell the story of the Queensland ranger who encounters a Yowie.

Consider two viewpoints on the Yowie phenomenon.

Propose a third extreme viewpoint to provoke thought and feelings in audience.

Conclude with the message that we need natural places to protect nature's mysteries.

SITE

Campfire or other setting with a ghost story atmosphere

TIME LENGTH

45 minutes

TIME OF DAY

Evening

PROPS

campfire or candle light

lantern to read notes and throw light onto storyteller's face

PROMOTION

Ever wondered whether Australia has a bigfoot or yeti? Come hear the Yowie Yarn and you will be wondering what is out there and what we ought to do about it.

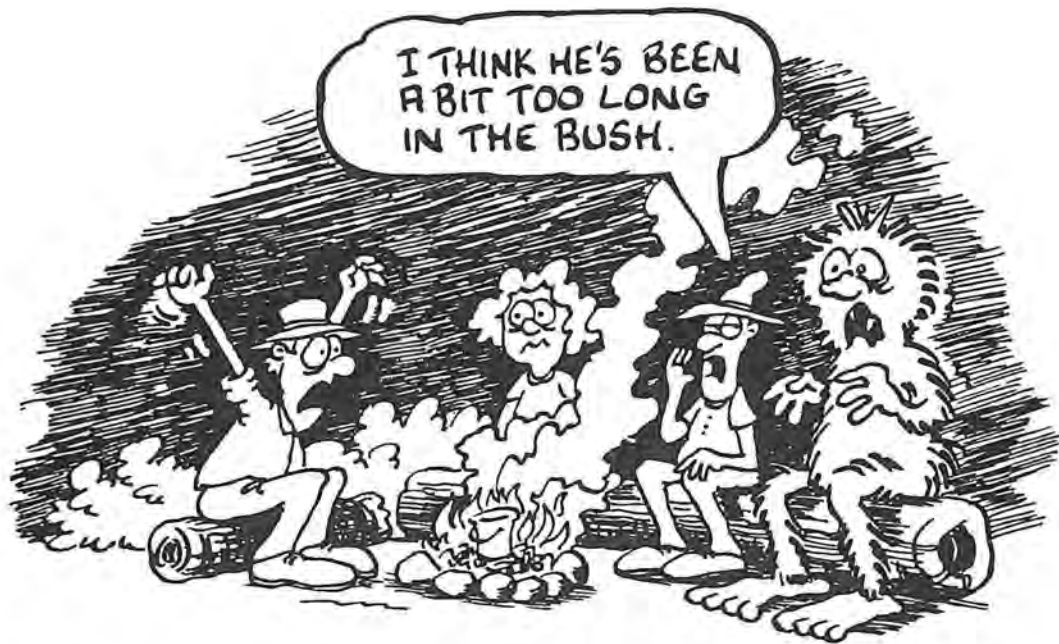


Tips for Guides

This is a true story. I know, because it happened to me when I was a Queensland National Parks and Wildlife Service ranger. I've had a lot of fun over the years with the Yowie Yarn because I like ambivalence – maybe yes and maybe no.

So this tongue in cheek script is only for guides with a desire to provoke and a sense of the absurd. When your explanation goes over the top at the end, you need plenty of twinkle in the eye and drollness in your voice to carry your audience with you.

Script



Once upon a time there was a national park ranger who managed a park in the Gold Coast Hinterland of deep, green rainforest and broken ranges. That's me. Tall tales resounded for years in these parts of a seven foot tall (that's over two metres), orange haired, sideways walking, offensive smelling creature with large, doleful eyes that the locals called a Yowie.

I had read occasional newspaper reports of sightings of a Yowie. Fascinating...but there were a lot of hippies in the hills. They weren't reliable witnesses. They were prone to let their interpretation of reality extend into the artistic rather than scientific method.

Things got more than a bit embarrassing, though, when a ranger colleague, Percy, reported to the Gold Coast Bulletin that he had seen a Yowie while working in Springbrook National Park. He had been delivering firewood to the picnic area in the rainforest on top of the escarpment.

Our immediate superior, the District Manager, interviewed Percy as the press story caused quite a stir within the Brisbane head office of the Queensland National Parks and Wildlife Service. Rangers were well respected in the community. Now they seemed to be weirdos, frightening people with stories of monsters in our national parks. Percy's story needed to be played down without creating bad publicity.

There were stories of thylacine sightings in Tasmania from the 1930s to the present day so there was always the chance that there was something out there. The Queensland National Parks and Wildlife Service would have to take the sighting seriously, or at least seem to take it seriously. We would have egg on our face if there was a Yowie out there and we ignored the report of one of our rangers.



Script

District Manager Bill interviewed Percy on a number of occasions. After each session with Percy, Bill would come on down from Springbrook to where I was working at Natural Bridge National Park. He confided in me how he was convinced that Percy believed he had seen a Yowie. What should he say? Believe him or not?

Bill couldn't believe in a real Yowie. Percy must be deluded. Bill justified his doubts when Percy told him about a dream he had some weeks after he'd seen the Yowie. Percy described the dream in vivid detail. He'd seen a family of Yowies. Their eyes were large and gentle. A female held a baby, fondling it compassionately.

Bill concluded that Percy had fallen asleep over lunch at the picnic area and dreamt vividly of a Yowie. On waking with a start he believed there really was a Yowie and pursued a noise, probably of a wallaby, into the rainforest. Still, Bill could not be seen to discredit an employee to the expectant public and reporters who wanted an explanation.

A few days later a bloke came to my door introducing himself as Queensland National Parks and Wildlife Service's official Yowie tracker! He had gone into head office claiming he could track down the Yowie. Bill took him on – here was a way to be seen to be investigating the Yowie sighting without having to do any more himself.

The Yowie tracker wanted to know how to ascend the escarpment to the scene of Percy's Yowie sighting. He said he had been in the army and was of Aboriginal descent, implying he was a 'black tracker'. He wore full jungle greens and had an array of army surplus paraphernalia hanging off him. I told him how to make his way up over the escarpment to the place of the Yowie sighting.

Some days later he returned with a series of photographs, claiming evidence of the Yowie's existence. There were shots of displaced moss on a fallen log and broken branches presumably made by a large creature crashing through the scrub. All were a little dubious to me. His 'clanger' was a plaster cast of a Yowie footprint!

Unfortunately he had run out of plaster-of-Paris mix, so only preserving some of the 'toes'. He had outlined the shape with a felt pen to make it more distinctive! I said it didn't look good. It looked more like wishful thinking to me. However, he said he had conclusive evidence – strands of Yowie hair that he had given to Bill to be analysed by the Government laboratories.

Well, I heard no more of our Yowie tracker for some time until Bill visited me at the park again. I asked about the Yowie hair. Bill sat me down and told me about the horse-hair fungus that can sometimes be found hanging from shrubs once the fruiting fungus cap has dried out and the stems wilted. That seemed the end of our Yowie story. Science had refuted the evidence.

But had it? Bill was sceptical, I was sceptical, you are probably sceptical, too. But you know what? I've changed my mind! Some months later I was at the Queensland National Parks and Wildlife Service head office having lunch and thumbing through some magazines when I came across a fascinating article on Big Foot and Yeti – names for Yowie-like creatures seen over the centuries in the United States, Canada and Tibet or thereabouts.

I'll take you through the arguments for and against their existence.

Guide talks audience through the arguments for and against the Yowie and the conclusions presented in the Table, which is organised to be read across for each topic.

ARGUMENTS FOR YOWIE	ARGUMENTS AGAINST YOWIE	CONCLUSIONS
HISTORICAL EVIDENCE		
Aboriginal stories	Mis-identification, for example, sea lions for bunyips, shaman for yowies	Unaccountable similarity in descriptions; hard to mis-identify a Yowie
Early settlers sightings	Hoaxes	Hoaxes unlikely in early settlers as many sensational discoveries were made, such as the platypus
ABORIGINAL MYTHOLOGY		
No knowledge of primates in Australia	Primate form comes from the human imagination; fear of self-image	
Descriptions of other Aboriginal creatures proved, for example, the diprotodon, the mega-sized wombat		
EVOLUTIONARY THEORY OF RELIC PRIMATE		
All fossil evidence is scarce.	No physical evidence of bones, teeth, hair	Scientific, factual proof is difficult to provide for any primate evolution.
Bones decompose in soil acids in wet forest within a year.	How could we not find evidence of a creature the size of a Yowie?	Scientific oversights are human nature.
We are still finding unknown and presumed extinct animals.		
Evidence for an evolutionary link with the finding of <i>Gigantopithecus</i> in Asia	The only record for <i>Gigantopithecus</i> is four jaw bones from Asia.	
<i>Homo erectus</i> in Victoria until 10,000 years ago—40 skeletons were found in 1973!		
THE NATURE OF A YOWIE		
An intelligent primate could cross the land bridge from Asia to Australia.	To avoid sterility from in-breeding would require a population of 100.	It would be hard to miss 100 Yowies on the move.
Could avoid detection.	When habitat is destroyed most creatures die, so bones should be found nearby.	Exceptional intelligence and determination would be required to avoid detection.
Could bury their dead and cover tracks.		
Able to strike fear and even unconsciousness in humans.	Psychological aberrations – the illusions and delusions of believers	
Tracks just disappear; they don't lead anywhere.	Hoaxes	

Script

The more than remarkable conclusion made in the magazine article was that all the sightings of the Yowie, Big Foot and Yeti were in the same localities where many people had reported sightings of UFOs! Here was an explanation for why so often the tracks of these creatures would just disappear without further trace – as if they had just vanished. Is the Yowie the 'missing link' in human evolution from the large primates? Is it an extra-terrestrial or the progeny of extra-terrestrials that have inseminated the great apes to influence the evolution of primates on this planet. I'll leave you to draw your own conclusion.

However, you are probably wondering what all this has to do with nature conservation. Well, not far from where the Yowie was sighted, at that time there was a rare small frog known as the Gastric Brooding Frog *Reobatrachus silas*. It was only known from one permanent pool in the State Forest of the Conandale Range. The male frog would swallow the eggs laid by the female and miraculously incubate them in its stomach.

The phenomena was discovered by researchers handling a frog that regurgitated live froglets. Scientists were fascinated to know why the stomach acids did not dissolve the tadpoles. Could these frogs provide new knowledge in medicines for treating stomach complaints? Unfortunately, at the time few people were interested in threatening the jobs of timber workers and the supply of timber for a miniature frog with some strange reproductive behaviour. And the frogs haven't been found since in the wild.

Now if it was a Yowie, or a thylacine, that could be a different matter. But not until we have conclusive proof. Had we found the Yowie, all of south-east Queensland's rainforests would have been declared a World Heritage Area to protect the missing link in the primate evolutionary chain.

We have a remarkable indifference to other life forms on Earth. Some of us can show compassion for other mammals when it is almost too late to save them from extinction. Whales, dolphins, gorillas, orang outangs and Yowies now get our attention. But what of the less appealing creatures? Why should they be less significant? We are biased by size and empathy towards mammals like ourselves.

This Yowie story is an allegory for our need to keep special places for special creatures, no matter how big or small, whether furred or scaled, animal or plant. Special places are needed that are big enough for natural processes to function with minimal influence from the impacts of people.

In these big natural places that we call wilderness, we can discover how little we humans are in the natural scheme of things on Earth. In wilderness we can imagine big things such as the continuing existence of The Unknown, and sometimes discover the really fantastic, such as the little gastric brooding frog, *Reobatrachus silas*.

Take care of the wilderness...it is the place where we can find ourselves and our place in space as the custodians of Planet Earth.

Section

4

DESIGNING YOUR OWN INTERPRETIVE ACTIVITIES

The Interpretive Activity Planner

All the recipes for the interpretive activities in this book have been designed and presented according to an established format, the Interpretive Activity Planner. It lists the range of considerations for designing an interpretive activity.

It doesn't matter where you start on the form as long as ultimately you consider all the points in the design process. Creative design need not be a linear process. It can start with an issue or an idea, a topic or a design technique. It then develops by considering the other factors in the design process, such as your objectives – the outcomes that your participants in the interpretive experience will know, be able to do and the values they will take away with them. As you consider each point on the form, the other points in the design process are also affected.

The Interpretive Activity Planner has an evaluation section built into it. You should apply the questions in the evaluation section when conducting any of the activities provided in this book. This will assist you to present the activities better next time.

Of the two dozen Best Recipes for Interpreting our Heritage, twenty three are complete and detailed in Section 3. The twenty fourth activity is the one you design yourself.

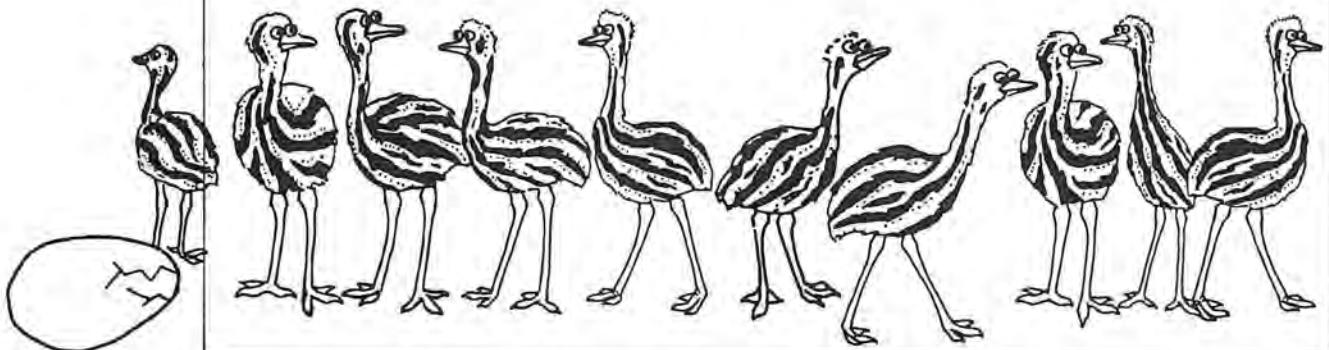
Go on, give it a go. Use the Interpretive Activity Planner to design your own interpretive activity or to write up an activity you currently conduct. This is your own recipe for yourself and others. Keep it up and you will have your own Recipe Book to share with others.

Costing your activity

You will need to draw up a projected budget for the activity. This should cover the costs of the props, as well as labour in assessing the site, preparing for, promoting and presenting the activity, and travel to and from the site.

Promoting your activity

An advertisement is provided with each Best Recipes activity, to help you promote the activity. You will have to decide how to promote the activity – a brochure, a poster on a resort noticeboard, a sandwich board sign in a camping area, a newspaper or magazine advertisement, radio or television, or on the internet or web site for a resort, agency or company. Think about who your potential audience is and where they are located, and the right promotional techniques should become apparent.



INTERPRETIVE ACTIVITY PLANNER



TITLE

THEME/MESSAGE

The theme is your intended message for clients to take away with them.

TOPIC

Natural Values

Landscape/Seascape/Processes

Plants

Animals

Ecology

Cultural Values

Aboriginal/History/Heritage

Lifestyle

Customs

Religion

Law/Lore

Entertainment

Resource use

Land/Water/Sea

Food

Tools

Shelter

Clothing

Management Issues

Visitors

Fire

Ferals

Weeds

Wise use

CAPTION/SLOGAN FOR ACTIVITY
(OPTIONAL)

DESIGN TECHNIQUE

Talk

Walk/drive

Wildlife observations

Concept exploring

Arts and craft

Sensory

Problem solving

INTERPRETIVE ACTIVITY PLANNER

THE EXPERIENCE

Use as many learning styles as possible. What will participants:

See?

Hear?

Do?

Make?

Feel? (emotionally)

AUDIENCE

Consider 'visitor profile' (country of origin; cultural preferences; special interests)

- Children 6 - 10
- Children 11 - 12
- Teens 13 - 17
- Young Adults 18 - 25
- Adults
- Family
- Groups

Maximum _____

Minimum _____

OBJECTIVES

These are your desired outcomes.

What *knowledge* will participants gain?

What *skills* will the participants gain?

What *attitudes/values* will be discussed/integrated into the activity that the clients can take away with them?

What *actions* will participants be able to take as a result of the activity?

INTERPRETIVE ACTIVITY PLANNER

OUTLINE

The major points that hold the activity together - include introduction, activity steps or points, and conclusion/theme.

Introduction

Body

Conclusion

SITE

Describe site essentials.

Map attached (optional)

TIME LENGTH

TIME OF DAY

Morning Evening

Afternoon Anytime

PROPS

For leader to supply

For participants to bring

PROMOTION

What? (write the advertisement)

When/where? (state time and place)

How? (the media)

INTERPRETIVE ACTIVITY PLANNER

BUDGET

PARTICIPANT COST

THE SCRIPT AND TIPS FOR GUIDE

Completed and attached

EVALUATION

Number attending the activity _____

Age groups

6 - 10 18 - 25

11 - 12 26 - 60

13 - 17 61+

Overall audience response

Self Evaluation

Which objectives did you achieve?

How could you improve your activity?

Participant Evaluation Survey

attached

REVISED ACTIVITY PLANNER

Revised planner attached

Section

5

PRESENTING INTERPRETIVE ACTIVITIES

Creating a pleasant environment for group interactions is important whenever you gather people together to begin an activity. The audience should be comfortable, relaxed and feel that they are in safe hands.

Remember that participants who arrive hot, flustered, thirsty, needing to go to the toilet and so on must have their basic needs met before they can pay attention to anything you say.

Following the steps below will help you conduct your activity smoothly.

Getting started

Organise and test out each prop and support item including a first aid kit, litter bag, field guides and binoculars.

Arrive at the site of the guided activity at least 15 minutes before starting time.

Mingle with participants before you begin the activity. Find out where they came from, how they heard about the activity and perhaps suggest other activities that they can attend.



Start the activity on time.

Let participants know what to expect. Introduce yourself and your business or agency. Briefly describe how the activity will proceed and your method of guiding. Outline restrictions from a positive point of view. For example, "Help conserve the area by not picking plants or littering" or "Help us all see and hear wildlife by being quiet and attentive."

If it is a walk or other active experience, announce track conditions, strenuousness, steps, hazards, safety precautions, duration, distance and where the activity will conclude.

If you are moving away from the starting point, keep within line of sight of the starting point for the first five minutes if you think people will be arriving late.

Theme/message

Introduce the theme of the activity. This is also the message that you will emphasise in your conclusion. The activity that follows your introduction is a series of experiences that culminates in realising the theme/message.

Using your voice

Project your voice. Speak to the person furthest away from you in your group. Ask if you are speaking loudly enough: "Can those of you at the back hear me loud and clear?"

Encourage questions from the audience.

Know when to be quiet. It isn't necessary to keep a barrage of conversation going. Pauses in speaking can create expectation. Or silence can be used to focus the senses and relax the mind and body, for example, 'Tuning In' on page 130.

Playing with your voice usually sounds a bit odd without a good deal of training. However, you might be able to do it effectively by including the voices of different characters in your storytelling.

If you must use a microphone, use a normal conversational volume and hold it about 6 inches away from your mouth to avoid feedback.

Also, remember that any change in sound re-attracts the wandering listener, so you might put the microphone aside for a personal story (or some other excuse) and people will suddenly listen at the change in sound. Then, when you change back, the same thing happens again!

Using your body

Face the group. Keep the sun out of visitors' eyes even if it has to be in your eyes. Never wear sunglasses.

Visibility is a key to attention. Most people will automatically move to get the light out of their eyes so they can be more comfortable and have eye contact with others. As a guide, you need to be in the spotlight, sunlight or firelight. The audience must be able to see you.

Most rehearsed gestures are artificial and can be counter productive so it is probably best to not try any that you don't do naturally. Perhaps the most important "gesture" is moving. By simply moving, you can effectively signal a point in your talk. For instance, you talk on one side of a tree or other prop

about the Australian landscape before Europeans arrived and shift a few steps to the other side to describe the landscape after rabbits and foxes were introduced.

Group dynamics

Keep participants in sight at all times. If you are conducting a guided walk, designate a responsible person to bring up the rear and to encourage stragglers.

Before talking about something significant, wait until the entire group has caught up. Attempt to manoeuvre your group in a half circle around you before you start speaking.

If you speak with visitors between stops, be sure to share any gems of wisdom with the whole group as well.

Avoid imposing your own interests on the group. Observe the group reaction – if a growing minority of the group appears bored or restless (look for feet shuffling), move on to something else.

Whatever you do, don't lecture! Try to develop your speaking in a way that invites the audience to participate. Go from what visitors know to what they don't know. Use analogy. Ask questions. If in doubt, be quiet and let the Earth speak.

Incorporate on-the-spot opportunities. Seize the interpretive moment! If a white-breasted sea-eagle is spotted overhead, don't keep talking about the effects of dieback disease.

Give emergency situations priority. Make sure your mobile phone or radio works or know where to get help fast. Plan rest stops. Keep a head count. Think and practice safety.

Questions from the group

Repeat any questions directed at you so that everyone hears them.

If you don't know the answer to a question, say so. Tell them you will try to get the answer and send it to them later. Don't forget to get their name and address.

Avoid complex and detailed explanations. Keep explanations simple, relevant and concrete.

Bringing the activity to a close

Make sure all participants are accounted for.

Conclude the activity on time.

Powerfully summarise the theme/message with a strong, motivating ending. It may be appropriate here to also mention your agency or business and what it is doing to protect our natural and/or cultural heritage.

At the very end, don't ask for more questions but say:

Thank you all for participating in this activity today. I enjoyed your company. I will be staying around here for a few minutes and would be glad to talk with anyone who would like to.

Return all props and gear in good order.

Section

6

EVALUATING YOUR PRESENTATION

Make your evaluation ongoing throughout your activity.

Observe visitor reactions. Look for eye contact, smiles, questions, percentage of participation within the group throughout the activity, and other feedback.

Check to see if the activity objectives are being met.

Use the Participant Feedback Form to collect and collate your clients responses.

Evaluation can also come from other guides or professionals. This may be a little unnerving but you can learn a lot from your colleagues. For a start, arrange for a peer, friend or even a stranger to monitor your activity and give you feedback.

Then ask a supportive supervisor or a non-supervisory superior to critique your activity. Don't wait for them to drop in, make an appointment!

Arrange for someone to videotape your activity. Be sure to ask permission from your participants and explain why you'd like to videotape the group. Be open and say you are being videotaped for training purposes. You might even ask participants to help you out by ignoring the camera so that you, too, can forget it is there.



PARTICIPANT FEEDBACK

To help us improve our activities we need to know what you think about them. Please fill in this questionnaire and return it to the guide or booking office.

Date _____

Name of Activity _____

ABOUT YOU

Please tick the appropriate box .

1. What is your age?

6-10 18-25

11-12 26-60

13-17 60+

2. Are you?

Male

Female

3. Where do you live?

Postcode _____

State _____

Country _____

4. Where are you staying while in this area?

(for example, at home, with friends, or name of accommodation)

5. Why did you come to this activity?

My friends and family came

To learn something

To have fun

Nothing else to do

Other (Please state)

6. How did you find out about this activity?

Posters

Tourism office

Tour agency office

Conservation agency office

Rangers/volunteers/guides

Newspaper ad

Radio

Tour activities program brochure

Other (Please state)

PARTICIPANT FEEDBACK

For the next three questions, circle your answer.

7. How much did you enjoy the activity? *A lot* *A little* *Not much* *Not at all*

8. Did it meet your expectations? *A lot* *A little* *Not much* *Not at all*

9. Did you learn anything new? *A lot* *A little* *Not much* *Not at all*

10. In a sentence, say what you have learned. What was the primary message of the activity?

11. How would you improve this activity?

12. List any six 'nature'/outdoor lifestyle TV programs you regularly watch.

13. List any six 'nature'/outdoor lifestyle magazines you regularly purchase.

14. Would you like to be on our mailing list?

Name _____

Address _____

_____ Postcode _____

Section

7

FURTHER READING

CALM's Visitor Interpretation Service has other publications for people interested in heritage interpretation and environmental education. These have been stepping stones in the preparation of *Best Recipes for Interpreting our Heritage*. They are:

Running Activity Programs: A Guide to Interpreting the Natural and Cultural World for Visitors (an illustrated soft cover guidebook to preparing interpretive activity programs and ecotours). Out of stock. Revising for publication in 1999.

Visitor Interpretation Manual: Guidelines, Standards and Practices for Managing Recreation and Tourism (includes IBM or Mac computer disc with templates for sign design on Pagemaker. \$45 plus postage).

Designing Interpretive Activities Workshop Leader's Manual and Participants Workbook (all you need to know to conduct this nationally accredited workshop and to produce your own recipe book of interpretive activities designed by the participants in your workshop. Includes a complementary copy of *Best Recipes for Interpreting our Heritage* and consultation time with CALM's Interpretation offices. \$1000).

This workshop meets tourism industry 'competency standards' and is endorsed by the Tourism and Travel Review Panel

ABOUT WESTERN AUSTRALIA

CALM produces a suite of communication media including publications, CD ROM, Video etc. Check out NatureBase <http://www.calm.wa.gov.au> - a one stop site - to find out more about what's happening with CALM in caring for forests, wildlife, reserves and recreation and tourism in Western Australia.



Section

8

KEEPING IN TOUCH

We would like to know how effective you found the activities provided here in *Best Recipes for Interpreting our Heritage*. The Best Recipes Feedback Form is provided here so that we can monitor and improve our interpretive services. Please complete and return it to us and we will keep you informed on CALM's interpretive initiatives in Western Australia.



BEST RECIPES FEEDBACK FORM

We need your help! Your responses will enable us to monitor and improve our interpretive services. Once you have reviewed this book and tried at least one of the activities, please complete this survey and return it to:

Visitor Interpretation Services
Conservation and Land Management
Locked Bag 104
Bentley Delivery Centre, WA 6983
Fax: 08 9334 0583

We can send you our Visitor Interpretation newsletter as a 'Thank You' for returning this form if you include your name and address.

1. Where do you work? (please tick the box)

Tourism industry

Community organisation

Government agency

Educational institution

Other (please specify) _____

2. How useful did you find our book, *Best Recipes for Interpreting our Heritage*, on a scale of 1 to 5? (please circle)

useless

1

2

3

4

5

most useful

3. List three features which you found particularly useful.

▷ _____

▷ _____

▷ _____

4. List three features that could be improved, and tell us how you think they could be improved.

▷ _____

▷ _____

▷ _____

5. Please rate the book on the following items. (circle a number)

	very poor	below average	average	above average	excellent
Style and layout	1	2	3	4	5
Content	1	2	3	4	5
Introduction	1	2	3	4	5
Section 1 and 2	1	2	3	4	5
Section 3 The Activities	1	2	3	4	5
Section 4 Designing Activities	1	2	3	4	5
Section 5 Presenting activities	1	2	3	4	5
Section 6 Evaluating your presentation	1	2	3	4	5
Value for money	1	2	3	4	5

6. Please rate the Activity Recipes that you have used so far. (circle the number)

	very poor	below average	average	above average	excellent
A Forest Connection	1	2	3	4	5
An Environmental ABC	1	2	3	4	5
Feathered Follies (Bird Watching)	1	2	3	4	5
Bruce 'n' Wal's Not-So-Excellent Kimberley Adventure	1	2	3	4	5
Bush Gastronomy	1	2	3	4	5
Bush Heritage Song Celebration	1	2	3	4	5
Bush Survival	1	2	3	4	5
Galactic Wilderness: Exploring our Place in Space	1	2	3	4	5
Getting in Touch	1	2	3	4	5
Kangaroo Squash	1	2	3	4	5
Matt the Feral Cat	1	2	3	4	5
Meet the Plants	1	2	3	4	5
Moir's Magical Mortar Mix	1	2	3	4	5
Plant Prints	1	2	3	4	5
Rock and Roll	1	2	3	4	5
Serpent Scales	1	2	3	4	5
Signposts	1	2	3	4	5
Signs in the Sand	1	2	3	4	5
Strangers in the Night (Spotlighting)	1	2	3	4	5
Totem Bingo	1	2	3	4	5
Tuning In	1	2	3	4	5
Watching Waves	1	2	3	4	5
Yowle Yarn	1	2	3	4	5
Interpretive Activity Planner	1	2	3	4	5

7. We are considering other Interpretive activities books. Please tick which most interests you.

- Recipes for Interpreting Aboriginal Culture*
- 'More' Best Recipes for Interpreting our Heritage*
- Recipes for Interpreting our Marine Environment*

Other suggestions, please list

8. If you would like to be advised of our other interpretive products and services, please complete this section.

- Running Activity Programs: A guide to interpreting the natural and cultural world for visitors*
- Designing Interpretive Activities Workshop*
- Leaders' Manual for the Designing Interpretive Activities Workshop*
- Visitor Interpretation Manual: Guidelines, standards and practice for managing recreation and tourism*

Name _____

Address _____

Phone _____ Fax _____ Email _____

9. Are you a member of

Interpretation Australia Association	Yes/No
Ecotourism Association of Australia	Yes/No
Australian Association for Environmental Education	Yes/No
Institute for Earth Education	Yes/No

Thank you for your assistance. We appreciate your feedback.



ECOTOURISM...

...minimising impact

...enhancing personal experiences of our heritage

...supporting the locals

...getting invited back

...making memories

...adding value(s)

THAT'S INTERPRETATION.



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