



## **PATHFINDER LEADERSHIP AWARD**



**PTHACT003**

# **Pathfinder Nature Awareness**

## **Methods**

### **Resource Material**

**January 2009**



Resource Material for the Pathfinder Leadership Award.

The Resource Material, Review Booklet and Assessment tools were produced by the Seventh-day Adventist Church Youth Ministries of the South Pacific Division (SPD). We acknowledge Pastor Eric White, the main author of this Unit. An editorial team reviewed and brought the task to completion. We wish to express our deepest thanks to them all.

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The Unit Outline is unchangeable. However, Conferences/Missions in the SPD are encouraged to be creative in the delivery of the training to suit their local needs. Photocopying of this material is permitted in the context of leadership training. It is not to be used for commercial purposes.

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# Orientation

Welcome to the Resource Material for PTHADM003 Pathfinder Nature Awareness Methods.

## Purpose:

This unit covers the specific skills needed for leading a group of Pathfinders on a Nature Activity.

## The Resource Material

This Resource Material contains the essential information to meet the competencies outlined for this unit. It should help you to:

- Gain a comprehensive understanding of Pathfinder awareness methods.
- Understand the significance of nature as it relates to a Pathfinder Club.
- Prepare for the PLA training/review/assessment program.
- Acquire knowledge that will help with your Pathfinder ministry.

A basic Review Booklet has been developed for this unit. It contains a small number of worksheets that, once completed, provide evidence that you understand the material. The Review Booklet needs to be completed before the assessment and forms part of the requirements to gain competence in this unit.

Note: If you have any questions, please consult your District Director or your local Conference/Mission Youth Department.

## What Additional Resources Do I Need?

- Bible
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## What Do I Need to Bring for the Training/Review/Assessment Program?

- Resource Material (if received beforehand).
- Review Booklet (completed, if required).
- Pencil/pen.
- Any other resources or equipment as specified by your assessor.
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## How Will I Be Assessed?

At the Conference/Mission training/review/assessment program, your competency will be assessed by one or more of the following methods:

- Written/oral questioning.
- Completed Review Booklet.
- Simulation activities.
- Project/assignment.

## Reassessment Process

- Opportunity will be given to training participants to be reassessed if they are not found competent.
- There will be no limit to the number of opportunities for re-assessment

## Appeal Process

Participants who are not satisfied with their assessment can:

- Discuss the issue with their Assessor.
- Discuss the issue with their District Director.
- Request the mediation of another Assessor.
- Report their concern to the Conference/Mission Youth Director.

## Unit Outline

The Unit Outline below summarises the requirements (Elements) of this unit. Each Element requires completion of various tasks (Performance Criteria).

PTHACT003	Pathfinder Nature Study Methods
PLA	Pathfinder Leadership Award

**DESCRIPTION:** This unit has been developed by the Adventist Youth Ministries of the South Pacific Division (SPD). This unit covers the specific skills needed for leading a group of Pathfinders on a Nature Activity.

The Competency Based Training (CBT) method has been adopted for the delivery of this unit.

Element	Performance Criteria
1. Explain the purpose of nature appreciation in Pathfinding.	1.1. Outline the biblical reasons for nature study. 1.2. Summarise the attitude of the church toward nature study. 1.3. Identify the main reasons why nature study is part of the Pathfinder Curriculum. 1.4. Outline principles in interpreting evolutionary theory from a Creationist viewpoint.
2. Identify the different types of natural environment.	2.1. Identify different types of nature activities that are appropriate for Pathfinders. 2.2. Compile a list of local nature study locations. 2.3. Compile a list of special equipment needed to make the most of the local nature study environments. 2.4. Demonstrate how to effectively use camouflage methods. 2.5. Demonstrate successful stalking techniques.
3. Plan TWO nature awareness activities (one must be a nature interpretation).	3.1. Determine the type of nature awareness activity. 3.2. Detail the preparation process. 3.3. Identify what personal preparation needs to be completed. 3.4. Prepare the participants for the activity. 3.5. Demonstrate a positive leadership attitude for the activity.
4. Conduct TWO nature awareness activities.	4.1. Demonstrate ability to introduce the activity. 4.2. Demonstrate ability to present the nature activity. 4.3. Demonstrate ability to bring the activity to a close. 4.4. Identify methods of maintaining interest in the nature activity. 4.5. Outline an emergency procedure that would be appropriate to nature activities.
5. Implement methods to minimise environmental impact.	5.1. Identify the major causes of environmental impact from nature activities. 5.2. Outline methods of minimising environmental impact. 5.3. Demonstrate good environmental awareness with a group.

# CHAPTER 1: Introduction to Nature Awareness Methods

The idea that it is more important to feel than to know is a reality that those who specialise in conducting learning experiences in the natural environment adopt as their primary motivation.

“Teach the children to see Christ in nature. Take them into the open air, under the noble trees, into the garden; and in all the wonderful woods of creation teach them to see an expression of His love. Teach them that He made the laws which govern all living things . . . do not weary them with long prayers and tedious exhortations, but through nature’s object lessons teach them obedience to the law of God.”<sup>1</sup>

Richard Louv, in his book *Last Child in the Woods* suggests that, many of our children are the first generation to be raised without a meaningful contact with the natural world.<sup>2</sup>

Every Pathfinder leader, counsellor, parent and teacher should take this statement to heart and do all that can be done to re-unite Pathfinders with nature and the natural world. We have the unique opportunity of helping our Pathfinders experience the joy of being in touch with the natural world and as Ellen White says in *Steps to Christ*: ‘Nature and revelation alike testify of God’s love.’<sup>3</sup>

It is our hope and prayer that many will meet the *Outdoor Son of God*, Jesus Christ, in the beauty of his creation.

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<sup>1</sup> E G White; Desire of Ages p 516

<sup>2</sup> R Louv; Last Child in the Woods

<sup>3</sup> E G White; Steps to Christ pg 9



## CHAPTER 2: The Spiritual Necessity of Nature for Pathfinders

'Nature and revelation alike testify of God's love. Our Father in heaven is the source of life, of wisdom and of joy. Look at the wonderful and beautiful things of nature. Think of their marvellous adaptation to the needs and happiness, not only of man, but of all living creatures.'<sup>4</sup>

### Reasons for Nature Study

#### 1. Spiritual Reasons

It was not till the late 1960s that scholars began to explore the relationship of nature to the spiritual life of children. Abraham Maslow (who proposed the famous *Hierarchy of Needs* in the late 1960s) first alluded to the fact that young children who experience the blessing of close contact with nature, its beauties and wonder, experience transcendence that triggers heart-felt prayer or more formalized spiritual moments.

As Pathfinder leaders, we have a responsibility to bring our children to nature just as we bring our children to church. By connecting our Pathfinders with nature they discover not only a place to worship but a place to learn about love and respect for all of life.

Nature introduces Pathfinders to the idea – to the knowing – that they are not alone in this world. Preserving water and air and all creation is our role as custodians and not as in times past, thinking only of the misguided interpretation of the biblical edict to 'subdue the earth'.

It is important that we think in terms of stewardship instead of domination. Pathfinding can benefit from emphasizing ecology and Christian environmentalism. This will evoke genuine spirituality. We do not care about God if we do not care for His creation.

Richard Louv in his book *Last Child in the Woods* suggests that 'the future is not about designing a nature curriculum. It's about awakening to creation.'<sup>5</sup> Pathfinders have to feel that this concept is important to parents and leaders. They see through us all the time. They know when we are not genuine. As this reality becomes more vivid for us, our commitment to it becomes more authentic and Pathfinders observe and respond to that authenticity.

The most important thing is awakening Pathfinders to the joy of discovery. This is an integral part of who they are as Pathfinders.

The reason we introduce Pathfinders to creation and the natural world is for them and us to be brought closer to the Creator. As a parent or Pathfinder leader we don't encourage Pathfinders to explore nature simply because it is pretty (some things are harsh and brutal) but because we want our Pathfinders to be exposed to something larger and longer standing than their immediate human existence.

Various writers suggest that when children are exposed to nature awareness activities, they realise that there is more to the universe than themselves as individuals. There is a spiritual power governing the universe and that power is available to them in their personal lives.

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<sup>4</sup> E G White; Steps to Christ p 9

<sup>5</sup> R Louv; Last Child in the Bush p?

## 2. Nature as Healer

*‘Those who contemplate the beauty of the earth find reserves of strength that will endure as long as life lasts.’ Rachel Carson*

John Guy, the Director of the ‘Bush Venture’ program, takes troubled young people and children into nature to calm their spirits.

A special part of his program is to take the group to the summit of a hill or mountain on a dark night. As they lie on their backs looking at the stars, he discusses with them order, distance, size and the power of the universe. He wants these children to realize that the same power at work in the universe can work in their own wonderful body.

Throughout this outdoor experience many of the group return to the mountain top to re-live the new discovery they have experienced. This is the beginning of healing for them.

Lousie Chawla, a Kentucky State University Environmental Psychology professor, is a tireless champion for increasing children’s experience of nature. She believes that for too long we have taken the child/nature connection for granted.

Some researchers have discovered that just being outdoors is a very healthy physical activity. James Sallis, director of the Active Living Research Program, suggests that an indoor, sedentary childhood is linked to mental health problems.

We are all aware that many of our Pathfinders are growing up spending more time in front of a TV, computer or game device. Richard Louv, in his book *Last Child in the Woods*, suggests that direct exposure to nature is essential for physical and emotional health. He discusses new studies that suggest that exposure to nature may reduce the symptoms of Attention Deficit Hyper-activity Disorder (ADHD) and that it can improve all children’s cognitive abilities and resistance to negative stresses and depression. (pp33, 34)

Nature-deficit Disorder describes the human costs of alienation from nature, diminished use of the senses, attention difficulties and higher rates of physical and emotional illness.

Research is beginning to emerge that suggests the Nature-deficit Disorder can be recognised and reversed individually within such entities as the Pathfinder organisation.

Our Pathfinder program, by emphasising nature-based activities, can bless our Pathfinders and families emotionally, cognitively and spiritually. It would be wonderful to see Pathfinder leaders choose a path that leads to a nature/child reunion. By going into nature it is possible to soothe and heal our senses and put them in tune with our Creator God again.

## 3. Church Support

- This unit has a spiritual perspective that is consistent with the biblical beliefs of the Seventh-day Adventist Church.
- The Bible is used as one of the text books for the unit.
- The Pathfinder training program reflects the basis of Pathfinder ministry as outlined:
  - ◆ Jesus considers Pathfinders and Youth as worthy of his love, care and salvation.
  - ◆ Matt 18:10-14, 19:13-15.

- ◆ Youth and Pathfinders are important to God and the church at each stage of their development. 1 Sam 2:28, Luke 2:52, Matt 18:4-6.
- ◆ Pathfinders and Youth are part of the ministry and mission of the church.
- ◆ John 21:15, 1 Tim 4:12,13.
- ◆ The family and church are responsible to God for sharing positive and consistent stories of God's impact in their lives. Deut 4:9.10; 6:7, Psalm 78:4-6.
- This unit contributes to the promotion of the Adventist Youth Ministry Mission Statement: To lead Pathfinders into a saving relationship with Jesus Christ and help them find their place in God's service.

#### 4. Biblical Emphasis

- The Bible uses the language of nature.
- 
- You Lord are my shepherd. I will never be in need. You let me rest in fields of green grass. You lead me to streams of peaceful water, and you refresh my life. (Psalm 23:1-3, CEV)
- Other texts speak of nature:

Genesis 1:1	In the beginning God created the heavens and the earth.
Psalms 19:1	The heavens keep telling the wonders of God, and the skies declare what he has done.
Isaiah 40:2	Look at the evening sky. Who created the stars?
Isaiah 40: 31	Those who trust the Lord . . . will be strong like eagles soaring upward on wings . . .
Psalms 46:10	Our God says, 'Calm down, and learn that I am God!'
Ezekiel 17:24	Every tree in the forest will know that I, the Lord, can bring down tall trees and help short ones grow.
Revelation 22:2	On each side of the river are trees that grow different kind of fruit each month of the year. The fruit gives life and the leaves are used as medicine to heal the nations.
Isaiah 55:12	When you are set free, you will celebrate and travel home in peace. Mountains and hills will sing as you pass by and trees will clap.
Psalms 48:1	The Lord is wonderful! He deserves all praise . . . (Scriptures from CEV)

Nature study is a Pathfinder activity because:

- We believe that 'in the beginning God created the heavens and the earth.' Genesis 1:1 (NLT).
- Jesus was involved in creation.
  - ◆ The world of nature can teach about God.
  - ◆ The Sabbath is a memorial of creation.
- Nature study teaches us about the power of God
  - ◆ The movement of the waves, the clouds in the sky and the mighty hills all testify that God is power. Jesus applies this power in reaching out to and meeting the needs of each Pathfinder.
  - ◆ Psalm 19:1,2. The heavens declare the glory of God...

- Nature study can be used to teach Pathfinders about God's providence
  - ◆ Jesus further, says, 'And don't worry about your clothes. Look at the lilies and how they grow.' Matthew 6:28.
  - ◆ The 'Way to Go' curriculum is based upon the active learning process that Jesus used in teaching his disciples and the people that came to listen to him. As leaders we need to draw the Pathfinders to the lessons that can be learned from the natural world that we live in.
  
- Nature awareness develops an appreciation of and develops attitudes toward nature
  - ◆ When opportunities arise, we must share with Pathfinders a lifetime interest in nature. The Pathfinder Nature Honours are designed as a specific introduction to a whole range of different aspects of the world of nature. By appreciating nature the Pathfinders develop skills in the powers of observation, sense, smell and deduction.
  
- Nature Awareness promotes the care of nature
  - ◆ 'The Lord God placed man in the Garden of Eden to tend and care for it.' Genesis 2:15 NLT.
  - ◆ As Seventh-day Adventists, we recognize the importance of restoring and replenishing the natural environment so that we can continue to enjoy it. We have a responsibility to have a caring attitude toward God's creation. This does not prohibit us from using the resources within nature to meet human needs.
  
- Jesus Use of Nature in Sharing Spiritual Truths
  - ◆ Jesus was in tune with the natural world that He created. He used nature consistently to teach the truths of His kingdom.
  - ◆ He spent time in solitude in the hillsides and among the trees where He took time to meditate and pray to His father in Heaven.

*'In His teaching from nature Jesus was speaking of the things which His own hands had made. In their original perfection all created things were an expression of the thought of God. The earth is now marred and defiled by sin. Yet even in its blighted state much that is beautiful remains. God's object lessons are not obliterated. Rightly understood, nature speaks of her creator.'*<sup>6</sup>

*'In the days of Christ these lessons had been lost sight of. Men worshiped and served the creature more than the creator. The veil that sin has cast over the face of nature He came to draw aside, bringing to view the spiritual glory that all things were created to reflect. His words placed the teachings of nature as well as of the Bible in a new aspect, and made them a new revelation.'*<sup>7</sup>

- ◆ The flowers, the workmen in the field, the birds, grass, trees and vines are scenes which the eye daily sees. All these can be connected with some spiritual truth.

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<sup>6</sup> E G White; Christ Object Lessons p 18

<sup>7</sup> E G White; Christ Object Lessons p 18, 19

*'Jesus loved the scenes of nature. Here surrounded by the works of his own creation thoughts of His hearers were turned from the artificial to the natural. To Him each quiet retreat was a sacred temple.'*<sup>8</sup>

*'All who go into the fields with Christ in their hearts will themselves be surrounded with holy influence.'*<sup>9</sup>

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<sup>8</sup> E G White; Desire of Ages p 291

<sup>9</sup> E G White; Desire of Ages p 291

## CHAPTER 3: The Natural Environment

But ask the animals, and they will teach you, or the birds of the air and they will tell you. Or speak to the earth and it will teach you or let the fish of the sea inform you. Which of all these does not know that the hand of the Lord has done this? In His hand is the life of every creature and the breath of all mankind. Job 12:7-10

In the age of electronic games, computers, television, ipods, virtual reality, and the perceived restrictions to National Parks due to the risk of litigation, we could end up with a generation who has no idea of what real nature is like. The skills of stalking, camouflage, patience, observation, identifying and discovery are being squeezed out by the world we live in. Everything pertaining to nature is being framed within the context of evolution, which is breaking down a belief in the credibility of creation. The Pathfinder Club needs to involve our Pathfinders in the natural world. The ways that we can do this include:

### Types of Nature Activities

Nature-based activities range from simple environmental games for young Pathfinders (eg. Environmental Starters from the Gould League) to nature observation, collecting, cataloguing and above all experiencing the peace and joy of the natural environment.

Listed below are some types of nature activities:

- Nature Discovery

This involves a group going to a natural area to observe a specific natural event or a specific animal, bird or plant; the group has a specific reason for going into nature:

- ◆ Build a bird hide beside a pool and photograph or record the birds.
- ◆ Set up a light shining on a white sheet at night and identify the insects and moths that gather.
- ◆ Observe the bats leaving a cave in the evening.
- ◆ Sit in a safe place and observe a flying fox colony.
- ◆ In spring, go out and draw, photograph and record the wild flowers that are blooming.
- ◆ Look for shells on a beach or reef.
- ◆ Do a night walk on a reef and observe the marine invertebrates.
- ◆ Go to specific areas to collect samples of gemstones.
- ◆ Visit a fossil site to see the amazing evidence of the flood.

i.

The possibilities are endless. Every location has some unique place where nature is available to be enjoyed. As a leader, do your homework, be enthusiastic, prepare and provide the right equipment as much as possible to make it a memorable experience away from the artificial world of electronic entertainment.

- Nature Study

In the Pathfinder context, this will usually take place while the Pathfinders are completing a Nature Honour. The Honour notes provide the information that the Pathfinders need to gain a basic understanding of the chosen nature honour.

Pathfinders enjoy working on Nature Honours. The major challenge is to help them feel the experience of being in touch with nature, more than just learning facts.

Some specific Activities for Pathfinders include:

## 1. Bird Watching

### a. Principles of Bird Watching

(Condensed from '*The Birdwatcher's Notebook*' by Peter Slater)

#### i. Clothes and movement

Wear clothes with inconspicuous colours and that have a contrast in colour between top and bottom e.g. dark coloured shirt and light coloured pants. This breaks up the bodyline. Conceal the movement of legs and feet as much as possible. If in the open, zig-zag so you are not at any stage moving directly towards the subject nor appearing to look at it. If amongst trees, keep some bush or tree between yourself and the subject. Move slowly, avoiding sticks and twigs that might snap. If it looks as if the subject is about to leave, do not stop abruptly but ease to a halt. Similarly, do not start suddenly.

#### ii. Tools

Bird watching can be done with naked eyes but a pair of *binoculars* helps greatly to bring the subject that much closer. A telescope is best suited to observing wading birds or other birds that are a long distance away. Binoculars, 7 x 35, give a good magnification, do not show up the hand wobbles too much, and are suitable for most bird watching.

When using binoculars shorten the strap so it just fits over your head; hold the binoculars just below your eyes while you search for the bird; when you see movement put the binoculars to your eyes and look in the direction of the movement. If you don't see anything, lower the binoculars and start looking again. Searching for the bird through the binoculars is fruitless.

#### iii. Other hints

*Time of day.* More birds are active two to three hours after sunrise than at any other time.

*Sound.* Often you know a bird is present by its call or song. To locate the direction of the call, use both ears, moving the head slightly from side to side until the song appears to be directly in front of you.

*Movement.* Watch for movement, the twitch of a tail, the flit of a wing, the flick of a beak. Movements are one of the hardest aspects of bird watching to master.

*Attracting birds.* The simplest method is to 'squeak' through pursed lips, 'kiss' the back of the hand. This will attract many small birds. More sophisticated squeakers, wooden gadgets that make a loud squeak when a screw is rotated can be obtained from bird observer's clubs or shops like Australian Geographic.

## 2. Night Fauna Observation Hike

In Australia, National Parks and Wild Life Service (or the equivalent) and some local Councils conduct spotlight walks for the community. Book your unit into such a walk.

If these are not available where you are, set up a spotlight walk yourself. Here are some suggestions explaining how to go about it:

- **Choose an area** that has low undergrowth under trees, passes near water and has native trees in flower or with fruit.
- **Equipment needed:** a bright torch such as a Mag light OR a hunting spotlight with a portable battery carried in a small back pack.

The aim is to locate animals by their eye shine (if they happen to be looking at you). Hold the torch or spotlight against your temple. Scan from the base of a tree, up its trunk, through its branches and then down the next tree. When you pick up the eye shine it looks like two red pinpoints of light shining back at you.

Participants should walk quietly, listening for rustles or any sounds that will give away the presence of an animal. If any noise is heard, shine the light in the direction of the sound.

To increase the chance of locating the animal making the noises, have two spotters working together 10 metres or so apart. Each shines their light at where they think the animal is. Where the beams cross will be very close to where the animal is. This is a good method to locate frogs.

## 3. Flora and fauna exploration

To get the best results it is advisable to conduct two explorations in different seasons such as summer and winter.

In spring there are many wild flowers and the birds are active because they are nesting. In mid-summer there are lots of invertebrates (beetles, grasshoppers, ants, spiders) and reptiles.

## 4. Conference Club Expeditions

Many Conferences/Missions now include a nature section in their log book for Pathfinder Club Weekend Expeditions. The nature section will include photographs or line drawings of various flowers, trees and plants in the area, a list of animals and birds that are in the area. Create a list that can be signed off by the counsellor as the Pathfinder identifies the nature object.

- a. Keeping a log - Some successful ways of keeping a log are:
  - ◆ a series of photographs recording events of a field trip
  - ◆ a diary including words and drawings

The concept of log books such as the *Adventist Outdoors Log Book*<sup>10</sup> is dealt with in another section of the PLA curriculum and is now becoming a very important part of not only nature study, but of general awareness of skills necessary when going into the wilderness.

- b. Behaviour in the field.

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<sup>10</sup> AO Log Book is available from your Conference Youth Department



*Private property.* Seek permission before entering private property to do nature observation. Respect the privilege when you are granted permission by avoiding lighting fires, leaving rubbish and litter, damaging fences, leaving gates open, disturbing stock and washing with soap, shampoo or detergent in troughs and water holes.

*Rubbish.* What you carry in, carry out.

*Personal safety.*

- ◆ Carry a first-aid kit and a coat for protection should the weather change for the worse.
- ◆ Let someone know where you are going and how long you expect to be away for.
- ◆ Take note of your surroundings as you go so that you can find your way back, particularly if in unfamiliar territory. Use prominent features such as a mountain bluff, creek, river or a road as a marker to help you find your way back.
- ◆ If you do get lost, stop. Think rather than panic. Try to work out where you are and how to get out. Otherwise stay where you are until you are found. Use smoke signals, mirrors, etc, to attract attention.

#### c. Nature Games and Sabbath Activities

Most Pathfinders like to play games. The wise nature leader will use this desire to cultivate an interest in nature.

Pathfinder Club leaders have opportunities on the Sabbath to involve their Pathfinders in nature activities. Nature games are suitable for Sabbath or can easily be adapted to a Sabbath setting.

Some feel that a nature awareness activity is simply the learning of facts. However, successful nature activities focus on experiencing the joy of discovery and feeling the peace and awe of God's creation.

In the Appendix are examples of games and activities that can be used for Pathfinders.

An excellent resource for this type of nature activity can be found in the book *Sharing Nature With Children* by Joseph Cornell.<sup>11</sup>

#### d. Nature Interpretation

This is an activity where a group is taken on a predetermined walk through an area by a specialist who provides information and interpretation to the group.

This activity requires that someone has researched an area or specific natural feature so that he/she can provide an interesting commentary to the group. The presentation needs to:

- ◆ Be interesting.
- ◆ Provide enough facts without getting boring.
- ◆ Provide relevant application to the needs of the group.
- ◆ Be presented clearly and enthusiastically.

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<sup>11</sup> Details in the Appendix

- ◆ Be mobile so that the group is kept moving to different locations to keep the participants focused.

Sgt Leighton Harris, an enthusiastic naturalist, illustrates the potential in nature awareness that Pathfinders may be exposed to in this poem.

### *To Dickie*

*When you walk through woods, I want you to see  
The floating gold of a bumblebee.  
Rivers of sunlight, pools of shade,  
Toadstools sleeping in mossy jade.  
A cobweb net with a catch of dew,  
Treetop cones against the blue,  
Dancing flowers, bright green flies,  
And birds to put rainbows in your eyes.*

*When you walk through woods I want you to hear  
A million sounds in your little ear,  
The scratch and rattle of wind-tossed trees,  
A rush, a timid chipmunk flees,  
The cry of a hawk from the distant sky,  
The purr of leaves when a breeze rolls by,  
Brooks that mumble, stones that ring,  
And birds to teach your heart to sing.*

*When you walk through woods I want you to feel  
That no mere man could make this real.....  
Could paint the throb of a butterfly's wings,  
Could teach a wood thrush how to sing,  
Could give the wonders of earth and sky;  
There's something greater than you or I  
When you walk through woods and the birches nod,  
Son, meet a friend of mine named God.  
.....Sgt. Leighton G Harris*

## **Nature Study Locations**

As a Pathfinder leader you will need to choose carefully the location in which you plan to conduct the nature awareness activity. These may include the beach, ocean, wetland, river, lake, plains, hills, bush, alpine, rainforest, coral reef, farm, garden, city park, or any other location.

Location	Features	Natural Possibilities
Sea	Reef	Looking glass, snorkelling Fish and reef colours
Beach	Sand	Shells, drift wood
	Rock	Headlands, rock pools, shells, birds
River	Flowing	Vegetation, rocks, fish
	Still	
Pools	River	Birds, fish, water life
	Dam	Birds, fish, water life
Bush	Trees, shrubs	Birds, animals, flowers, trees
Field	Open areas	Flowers, insects, birds
Hills	Slopes	Flowers, insects, birds, trees, rocks
Gardens	Town, nursery	Flowers, trees, birds, insects

### Useful Equipment.

- Binoculars. Are great if there are enough for everyone, so that birds and other nature objects can be observed from a distance.
- Butterfly net. Able to catch insects so that you can have a close look before releasing them again - particularly butterflies and moths.
- Zip bags. To collect specimens, such as rocks and shells as long as there is no risk to the specimen and the bags are clearly marked with location, date, place, collector and name of specimen (if known). First of all, check if collection is allowed in the area.
- Magnifying Glass. Are great if you can organise enough for each participant.

### Other Skills

- Camouflage
  - ◆ Camouflage is a kind of disguise that helps a person, animal or object blend in its environment. Animals can recognise human beings by their silhouette alone, and camouflage breaks up this silhouette, making people much less noticeable.
  - ◆ *Many animals have good natural camouflage.* The zebra and tiger, for example, have 'tall grass' stripes and many flat fish that live on the ocean bed have a gravel pattern. Human beings have no natural camouflage, but by copying animals and choosing the right clothing, we can make ourselves almost invisible against any kind of background.

- ◆ *How necessary is camouflage?* In order to answer this question you will have to stop and ask yourself how well animals can see. Take as a guide the fact that animals can see as well as they need for their own particular way of life. A field mouse, for example, can see only a few inches in front of its nose. This is all he needs to find its food. Everything else is just a blurred grey shadow. But a moving shadow, no matter how blurred, means death (a hawk or an owl, perhaps) and the mouse will run and hide. Clearly it does not matter to a mouse whether you use camouflage or not as long as you *keep still*.
- ◆ Some animals react suspiciously to anything unusual in their particular territory. Foxes get to know their own area so well that they have an almost photographic picture of it. This means that if you planted a thick bush in the middle of a field and then hid inside, a local fox would be as wary as if you were standing there in full view without the bush. So if you are watching animals that get to know a small area well, *don't do anything unusual*.
- ◆ But remembering to keep perfectly still and not alter the area in any way are not enough in themselves. Many grazing animals, like the deer, often frequent wide open spaces. These are timid creatures with no defence except their own speed. They are on constant watch and have excellent long range vision. To watch them you will have to become almost invisible.
- ◆ A full camouflage kit is clearly quite unnecessary if you are setting out to make a study of small rodents. But if you are going into an unknown area and want to see as much as you possibly can, you should wear camouflage that is suitable for watching the most timid and sharp-sighted of animals.
- ◆ *How to choose your camouflage.* Picture the type of territory you will be in. Is it rocky, wooded, grassy or desert-like? Choose the colour and pattern of your camouflage to blend in with it.
- ◆ If you are going to watch one particular species of animal, think how well they can see. The better their eyesight, the better your camouflage must be.
- What to wear.
  - ◆ A shirt or jacket large enough to be worn over other clothes. It is sometimes possible to buy surplus army equipment and this is ideal as it is already camouflaged. An alternative is to use an old shirt and add the camouflage. It is best to camouflage clothes by dyeing them. If the material is already a plain green or brown, try adding a camouflage design by gluing or sewing on patches of other materials.
  - ◆ Footwear without shiny buckles.
  - ◆ A peaked cap that throws shadow over the face. Buy army surplus caps or dye an old cap.
  - ◆ Gloves can be awkward when using a camera. Try wearing just one glove, as this will at least break up the symmetry of a face and two hands that so many animals can spot a mile away.

- ◆ Some form of camouflage is necessary for the face. The peaked cap will help, but a mask is even better, particularly at night. Patches of theatrical grease-paint or burnt cork (just hold a lighted match to a cork until it looks charred) are also effective, although a little messy.
- ◆ Insect repellent. Once watching position has been taken up, avoid sudden movements such as swatting at hungry mosquitoes.
- ◆ A red filter torch. If out at night, fit a red filter to the torch as mammals are almost blind to red light. Cellophane paper and a rubber band make an excellent simple filter.

## Stalking Skills

*Walk like a tiger.* Even the very best of camouflage will be wasted unless the stalkers are able to walk really silently. Although participants may think they are moving quietly, to an animal with sharp hearing they will sound like an elephant crashing about. So make it an aim to be as silent and sure-footed as a tiger.

- Here are some guidelines to consider:
  - ◆ *Choose footwear carefully,* according to the kind of ground to be covered. The footwear could be knee-boots, sneakers or even bare feet. For general purpose walking there is much to be said for a pair of well-fitting climbing boots with deeply grooved rubber soles and heels. It is possible to experiment with super-silent walking.
  - ◆ *Learn to walk infinitely slowly.* This is surprisingly difficult to do and involves keeping absolute control of your limbs like a ballet dancer. Slow walking takes a great deal of nerve as well as muscle control.
  - ◆ *Place your feet very carefully on the ground.* Many animals not only hear better than we do, but are also able to feel vibrations transmitted through the ground. On a soft boggy surface the toe should touch the ground first, then lower the body weight gradually onto the heel.
  - ◆ *Try to anticipate the next few steps ahead,* deciding exactly where the feet will land. Dead twigs and loose stones can be avoided in this way, giving more time to look around. With practice it is possible to plan up to five or six steps at a time.
  - ◆ *Cover difficult ground quickly.* The most awkward kinds of country to cross are open stretches with no cover, dense matted undergrowth and dry dead leaves. Sometimes it is a good idea to dash straight into such an area and then stop dead. This will have two possible effects. The sudden burst of noise may well draw the attention of nearby animals or birds that might otherwise have crouched unseen in the undergrowth. The other effect is that wildlife a little further off will tend to be confused and not run away, perhaps thinking the commotion is caused by some other animal. Let any dash last only a few seconds and make the intervals between them much longer and totally silent. This way you will see far more than if you move along laboriously in slow motion.

- ◆ *Take advantage of every bit of cover*, even if this means walking in a series of zigzags.
- ◆ *Walk upwind*. Make sure that any breeze that is blowing is coming from the animal towards the stalkers and not the other way around. If the stalkers are near a farm, try letting the scent of the farm animals cover their own.

## CHAPTER 4: Principles of Nature Awareness Instruction

'Nothing is so contagious as enthusiasm . . . it is the genius of sincerity and truth *accomplishes no victories without it.*' (Bulwer-Lytton)

It is important for you, as a Pathfinder leader, to share your own passion for nature with your Pathfinders. If you hope to communicate a love and respect for nature you will first need to develop that love yourself.

Only by sharing your passion and respect for the earth will you inspire your Pathfinders to explore their own feelings and perceptions about our creator God and his creation.

This experience will also offer you the opportunity of developing mutual trust and friendship between you and your Pathfinders. If you feel you do not have this experience then seek out people to assist you.

### Principles That Will Foster Enthusiasm.

Joseph Cornell, in his book *Sharing Nature With Children* has some practical suggestions for good instruction and learning in the natural environment.<sup>12</sup>

His five suggestions to enhance learning in the out-of-doors are:

*Teach less and share more* - Besides telling the Pathfinders the bare facts of nature share with them your own observations and experiences.

*Be receptive and sensitive* – By listening and being aware you can direct the spontaneous enthusiasm of the Pathfinder toward learning. Every question, comment and joyful exclamation is an opportunity to communicate. Be alert also to what nature is doing around you at the present moment. There is always something unexpected happening that you can stop to observe. Don't be so tied up to your learning activity plan that you miss these gems.

*Focus the Pathfinder's attention straight away* – Set the tone of your activity right at the start. Involve everyone in looking for objects. If a bird lands on a branch near you, stop and draw attention to it. Many Pathfinders are not used to watching nature closely. Let them feel that what they are finding is interesting to you too.

*Look and experience first, talk later* – Pathfinders have a marvellous capacity for involving themselves in whatever they are observing (a butterfly coming out of its chrysalis, or a bird feeding its young). Don't worry too much about scientific names; you can check that out later. Observe the tree, feel its bark, smell its leaves, give it a hug to make it personal.

*A sense of joy should permeate the experience* – By keeping the spirit of the occasion happy and enthusiastic, Pathfinders will naturally be drawn to learn. Remember: your own enthusiasm is contagious and it is perhaps your greatest asset as an instructor.

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<sup>12</sup> J Cornell; *Sharing Nature with Children* p 11 - 14

## Learning methodology

This refers to the methods you, as the Instructor/Leader, will use to ensure you conduct a successful activity for the Pathfinders. This will include:

### 1. Presentation and delivery

- The enthusiasm and knowledge you bring to the activity.
- The way you match the level of the activity to the characteristics of the learners.
- Ensuring that your activity matches and develops competencies that you intend the learners to achieve.
- The provision of a variety of learning styles.
- Engaging, exciting and enlivening the Pathfinders in order to stimulate and motivate.
- Keep an interesting flow in the instruction.

### 2. Learner participation

- Understanding the role of presentation and communication strategies in encouraging the Pathfinders to participate.
- Including strategies such as a relaxed and confident presentation, varied use of voice, appropriate body language and active listening.

### 3. Activity review and feedback

- Providing opportunity for the Pathfinders to reflect and summarise.
- Including reflective questions and summaries.

### 4. Managing learner behaviour

- Establish guidelines for Pathfinder behaviour in order to be able to establish and maintain a harmonious learning environment:
  - Establish guidelines.
  - Provide a safe and supportive learning environment.
  - Negotiate a Pathfinder/leader contract or agreement.
  - Acknowledge the Pathfinders' varied and challenging backgrounds and their needs.
  - Reward appropriate learning behaviours.
  - Implement a 'learning to learn' philosophy.

### 5. Assessment Checklist

In the Resource Document you will find an *Assessment Checklist* for you to use. You can determine whether or not you are competent in achieving the requirements of this unit on conducting a nature awareness activity for Pathfinders.



## Flow Learning<sup>13</sup>

*Flow Learning* allows you to create an endless variety of nature experiences. It is based on a few simple principles.

1. **Awaken Enthusiasm** - Pathfinders learn if the subject matter is meaningful, useful, fun, or in some way engages their emotions. Once enthusiasm is engaged their energy can be focussed on the upcoming lesson or experience.
2. **Focus Attention** - Without concentration no true learning can take place. The activities in this stage challenge the Pathfinder in fun and creative ways. To successfully meet these "challenges" the Pathfinders have to concentrate on one of their physical senses. In doing so, they become more calm, observant and receptive to their surroundings.
3. **Direct Experience** - Once Pathfinder's interest and energy is awakened and focused, the stage is set for deeply experiencing nature. These absorbing, experiential activities have a dramatic impact that involves Pathfinders directly with nature and as a result develop a love and concern for the Creator and creation.
4. **Share Inspiration** - This stage provides an interesting way for Pathfinders to reflect together on what they have learned. Taking the time to reflect upon an experience can strengthen and deepen that experience.

*Flow Learning* can be used for short periods of time or can last all day. It can be used indoors if the weather is inclement; however it is ideally conducted outdoors. Use whatever you have around you at the time. Build your resources of games and direct observation.

Features of Flow Learning:

- Flow learning helps to overcome challenges in sharing nature. Those who love natural surroundings enjoy sharing their delight and would like to know how best to share their inspiration with others. Often frustration is experienced because Pathfinders are distracted or tired, or just not interested.
- Flow learning describes a way to use nature awareness in a flowing, directional and purposeful way.
- Flow Learning gives everyone a uniquely uplifting experience in nature. You will find that Pathfinders will listen more enthusiastically to discussion of the science of nature, natural history and ecology if you first help them get into a receptive and inspired mood.
- The beauty of Flow Learning is that it shows you how to begin where the Pathfinders are at; then arouse their enthusiastic participation and guide them step by step through increasingly sensitive activities into new awareness and understanding.

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<sup>13</sup> Concept of a process of joining activities together to experience and discover the wonders of creation. See Joseph Cornell; *Sharing Nature with Children II* p 18,19  
An activity outlining the use of *Flow Learning* is outlined on page 14

## CHAPTER 5: Plan a Nature Awareness Activity

*'Teaching children about the natural world should be treated as one of the most important events in their lives.'* -Thomas Berry

This chapter looks at the main points that need to be considered when planning a nature awareness activity with Pathfinders.

### 1. Determine the type of nature activity

- Identify the purpose of the nature activity within the context of class work.. For example, the theme for the weekend campout could be 'working together,,'; so examples of plants and animals working together could be part of the collection of activities that your club may put into the program.
- Select a specific time slot, for example, Sabbath activity, morning or afternoon.

### 2. Detail the preparation process

This may be the first thing that you decide on because the location may have special natural features that become the purpose of the event. If you are near a reef then the purpose becomes easier to identify.

- Factors that need to be considered with a *location* are:
  - ◆ Is it appropriate for the size of the group?
  - ◆ Is it easy to access?
  - ◆ Is it safe?
  - ◆ Will the event have a negative environmental impact?
  - ◆ Do you need to gain permission?
  - ◆ Will it be interesting to the Pathfinders?
- Keep in mind that nature needs to be seen and the *natural feature* needs to be experienced.
- Consider the *time* you have available in the program or the time needed to fully appreciate the nature study experience. The time will include travel as well as the duration of the event.
- Once you have made the decisions about this activity you need to *communicate* this to the Pathfinder Staff, Pathfinders and the parents. This can be achieved through:
  - ◆ announcements to the whole club
  - ◆ reminders by unit counsellors
  - ◆ notices sent to the parents
  - ◆ notices in the Church Bulletins
  - ◆ email to the Pathfinders and their parents
  - ◆ notice board poster
- If it is part of a weekend camping program then any special needs are included in the information given out before the campout.
- *The site.* The activity site needs to be checked by the leader before the event. This visit enables the leader to check out what natural things are in the area and where activities will take place. This pre check will include:
  - ◆ risk analysis
  - ◆ environmental impact analysis.
- Other considerations are:
  - special equipment needed to enhance the nature activity.
  - resource material that would increase the impact of the nature activity.

- ◆ experienced person or specialist to enhance the enjoyment of the nature awareness process.
- ◆ adequate staff to participant ratio for the group.

### 3. Participants' Preparation

- Provide pre-knowledge if the type of nature study event will be enhanced.
- Give participants a list of what they need to bring :
  - ◆ types of clothes
  - ◆ types of footwear
  - ◆ slip, slop, slap
  - ◆ water
  - ◆ sunglasses
  - ◆ carry pack
  - ◆ food
  - ◆ camera
  - ◆ pen, paper, notes
  - ◆ any special equipment.
- *Be positive:*
  - ◆ The leaders should be enthusiastic in their attitude to the event.
  - ◆ Share with the Pathfinders some of the exciting things they may experience.

### 4. Demonstrate a positive leadership attitude for the activity

- *Welcome the participants*
  - ◆ Introduce the leaders
  - ◆ Outline the purpose of the activity
  - ◆ Review the guidelines for the activity including:
    - i. OH & S issues that are relevant
    - ii. Minimising environmental damage
    - iii. Controlling risk
    - iv. Emergency procedures
  - ◆ What is said at the beginning sets the tone for the event.
- *During the activity*
  - ◆ Monitor and respond to the group.
  - ◆ Continually keep the interest of the group focused by drawing their attention to special features. Allow participants to show you things that they have found.
  - ◆ Provide good communication.
  - ◆ Provide a link between the physical, natural and spiritual world.
  - ◆ Help the group to discover that nature can apply principles to living just like the Bible does.
  - ◆ Be prepared to adapt according to what nature does in regard to the objectives of the activity. If the objective of the activity is to watch the brogga dance and they choose not to dance unlike every other time you may have the opportunity to redirect the group's attention to another natural feature in that environment. Remember that nature is full of surprises and you cannot fully predict it.
- *End of the nature activity*
  - ◆ Account for all of the participants.
  - ◆ Debrief the experience.

- ◆ If the participants are doing a Pathfinder Pursuit then entries should be made in the Journal.
- ◆ Encourage Pathfinders to build on the joy of the exploration of nature they have experienced.
- ◆ Thank the group for their participation.

## CHAPTER 6: Conduct a Nature Awareness Activity

*'I go to nature to be soothed and healed and have my senses put  
In tune once more.'* - John Burroughs

### Preamble - A Formal Activity Plan for the Instructor

Here is an example of all the aspects of a nature awareness activity how the segments fit together to make up a total learning procedure. This is a practical guide to help you plan the important aspects that need to be included in your activity. If you follow all the instructions, you should have a successful and enjoyable activity.

#### Learning Activity Title

Study the bird life of a selected area.

**Time** 2 hours (6.30 am – 8.30 am)

#### Learning Focus

A general statement about the focus of the activity.

'The purpose of this activity is to . . . '

#### Learning Outcomes

List a specific outcome for each segment of the activity that requires a specific behaviour. What do you want the Pathfinders to do as a result of the teaching/learning process?

The Pathfinders should be able to:

Identify . . .

List . . .

Walk/hike . . .

See/hear . . .

Describe . . .

Demonstrate . . .

Recognise . . .

#### Learning Context

Where does this activity fit in the overall plan for the nature awareness activities for the Pathfinders? What comes before and after? Is it part of a series?

This activity introduces . . .

This nature awareness activity continues to develop . . .

This activity revises learnt skills . . .

#### Learning Resources

List any resources or media used in the nature activity:

Books, DVDs, pictures, other media

Maps, compass  
Clothing  
Ropes, nets, blindfolds  
Health and safety items

## Procedure

### *Introduction*

An *'ignition resource'*: Something that will focus the attention of the students on the main part of the activity.

Questions  
Samples  
Real life experiences  
Discussion  
DVD

### *Development*

*The main learning segment of the nature activity.* How you, as the instructor, will conduct the activity.

- Include what you want the Pathfinders to do
- Enable the Pathfinders to learn a new skill
- Apply the new skill by ensuring the Pathfinders are involved in the task/activity
- Include feedback from the Pathfinders

### *Conclusion*

Debrief on the nature awareness activity by using:

- A quiz
- Questions
- A discussion of log book entries.

Journal entries can be completed at home or as a Pathfinder Club activity.

## Conduct a Nature Awareness Activity Using the Flow Learning Method

This section deals with conducting a nature awareness activity and shows how *Flow Learning* can be used in the process. The *Flow Learning* methodology encompasses each aspect of conducting the activity and includes introducing and conducting the activity so that it, including introducing the activity, conducting the activity in a way that will maintain interest. It also demonstrates how an activity can come to a meaningful conclusion.

The *Flow Learning* concept is outlined in detail in Joseph Cornell's book *Sharing Nature with Children* // pages 28-47. It is strongly recommended that you purchase a copy of the books *Sharing Nature with Children* and *Sharing Nature with Children II*<sup>14</sup>.

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<sup>14</sup> Cornell, J. *Sharing Nature with Children*. Dawn Publishing. Nevada City, CA USA, 1989.  
Available from John Reed Book Distribution, PO Box 257, Tea Gardens NSW 2324 Australia  
Email: [johnreed@johnreedbooks.com.au](mailto:johnreed@johnreedbooks.com.au)

These books are wonderful resources of nature activities and nature games that you can use as you lead your Pathfinders into a genuine uplifting experience in nature.

*Flow Learning* has four stages that flow from one into another in a smooth, natural way.

## Stage 1: Awaken Enthusiasm

As the name suggests, this stage is playful. Fun-filled games and activities that create a lively flow of energy.

Through shared fun, the *enthusiasm* stage gives Pathfinders a feeling of closeness with one another. It creates a base for alertness and enthusiasm on which you can build subtler, more meaningful experiences.

### Examples of "Stage 1" Activities

These activities are designed as an example of how to introduce the nature awareness activity in an enthusiastic way.

- Activity 1.1 – Wild Animal Scrambles (for Pathfinder's and Staff)  
Stick the name of an animal on each Pathfinder's back. Then tell them to ask the other Pathfinders questions until they find out which creature they are.

When they discover their name the sticker can be placed on the front. They can then find their partners by making the animal sound.

\* The attention-focusing effect of these playful games deflects potential discipline problems before they occur.

- Activity 1.2 – Bat and Moth (for young Pathfinders)  
Briskly hustle the Pathfinders into a circle. With the circle formed and the Pathfinders holding hands introduce the game. Choose five Pathfinders to play moths and another to play the bat.

The bat moves around the inside of the circle blind-folded. When the Pathfinder calls 'bat' the moths have to answer 'moth!' Thus using his sonar the bat tries to catch a moth. This creates excitement among the moths.

If the bat is having difficulty catching a moth the circle may be made smaller.

## Stage 2: Focus Attention

If we give complete attention to what we are observing we can see nature in fresh, new ways. At the close of the *enthusiasm* stage Pathfinders are usually having lots of fun and feeling relaxed.

Now we can begin to bring that energy to a fine focus, with games that help Pathfinders become calmly, enthusiastically attentive. To free our attention to nature, we need to quiet our minds.

Games of the *attention* stage are simple but remarkably effective. Not only do they help Pathfinders become more observant, they also help attune heart and mind to nature's beauty.

The key is to isolate one of the senses (touch, sight, hearing) and devise a clever way to help the Pathfinders concentrate on it.

### Examples of “Stage 2” Activities

These activities help to focus attention for the main learning segment.

- Activity 2.1 – Un-nature Trail

In this game you place man-made objects such as pieces of rope, pegs, sweets wrappers, pen, milk bottle lid, soft drink cans along a trail and the players try to see how many they can find.

Place the objects no more than a metre off the path so that the Pathfinders can see them without moving the bushes or moving off the path.

Encourage the Pathfinders to remain quiet and not touch the objects when they find them, nor point them out to their friends.

After allowing sufficient time (approximately 10 mins) take the Pathfinders back along the same track and ask individuals to point out the objects.

Treat the activity as a competition and find out who found the most objects.

- Activity 2.2 – Sounds Game

In this game the leader tells the group to sit down or lie on their backs, not too far apart, close their eyes and hold up their hand.

When they hear a sound they point in the direction of the sound. Then have them take turns describing the sounds they heard.

\* The Sounds Game gives Pathfinders a fresh awareness of nature’s interesting and beautiful sounds.

### Stage 3: Direct Experience

Although Stage 2 (Focus Attention) and Stage 3 (Direct Experience) are similar, they differ in the greater power of the Direct Experience games to involve Pathfinders directly in nature.

For example, shutting off a Pathfinder’s sense of sight makes them much more alert to information from other senses and so helps them experience their surroundings in fresh ways. Each of the Direct Experience activities is designed to intensify one or more sense-elements of the nature experience.

Direct experiences of nature enable us to enter fully into the spirit of the natural world. They help Pathfinders discover a deep, inner sense of belonging and understanding.

If Pathfinders are to develop a love and concern for the earth they need to have these direct experiences, otherwise their knowing remains remote and theoretical and never touches them deeply.

After a deep, direct experience with nature the mind is quiet, receptive and fully absorbed in the event. Direct experience awakens a sense of wonder. Only with such wonder and empathy can we truly begin to know nature.

It has been said that ‘It is only by forgetting yourself that you draw near to God.’



## Examples of "Stage 3" Activities

These are meaningful activities that involve Pathfinders in heightening their interest and feelings toward the natural world.

- Activity 3.1 – Webbing

Here is a game that makes very clear the essential inter-relationships among all members of nature's community. Webbing vividly portrays how air, rocks, plants and animals function together in a balanced web of life.

The Pathfinders form a circle. The leader moves from one pathfinder to the next with a ball of string, he hands cards out to the Pathfinders stands inside the circle near the edge with a ball of string, giving cards with names of plants and animals to each person and connecting that person to another to form a web.

Continue connecting the pathfinders with string as their relationships to the rest of the group emerge. Bring in new elements and considerations until the entire circle of Pathfinders is strung together in a symbol on the web of life. You have created your own ecosystem.

To demonstrate how each individual is important to the whole community, destroy the web, strand at a time, by cutting the string with a pair of scissors, eg a fire or logger kills a tree. Continue to do this until all of the webs are disconnected. You will find that this activity has a profound influence on the Pathfinders.

- Activity 3.2 – Meet a Tree

This game is for pairs. Blindfold one partner. The other partner leads the 'blind' one a short distance into the bush to a tree.

The partner encourages the blind-folded person to explore their chosen tree and to feel its unique features. Does it have branches? What kind of bark does it have? What do its leaves smell like? Is the tree still alive? Is it older than you are?

When the blind folded person has finished exploring, lead him back to where you began, but take an indirect route. Now, remove the blindfold and allow the blind folded person to find the tree.

It is important for Pathfinders standing at the starting point of the activity not to speak loudly as their voice may give the blind folded person clues regarding the direction from which they have come. Encourage all participants to speak quietly. The pairs can then change roles.

## Stage 4: Share Inspiration

At the end of stage 3, the Pathfinders feel an inner sense of excitement. They are now open to hearing stories that portray the noble ideals of nature, God's 'second book'.

Now is a good time to let Pathfinders talk about their earlier experiences at different stages of the process. Sharing reinforces the Pathfinder's sense of discovery and wonder while drawing the group together through their common experiences.

### Example of a “Stage 4” Activity

This activity can be used to conclude the lesson. It provides an opportunity for the leader to affirm the group and reinforce some spiritual applications.

- Activity 4.1 – Moment of Truth  
Endeavour to lead the group to a memorable place which will help the Pathfinders reflect on the special time they have had with God in nature. Watching the sunset, reading an appropriate poem or story has been used effectively. On occasions it is good to have something special memento to give to the Pathfinders, such as a small polished stone.

It is appropriate at this time to have the group stand in a circle holding hands and for the leader to thank the group for their participation and pray for them.

### Suggested Emergency Procedure for Nature Activities

These are some suggested items to consider in order to ensure your nature activity is conducted safely:

- Visit the site before the activity takes place.
- Choose areas where the activities will be conducted.
- Get weather forecasts and plan accordingly.
- Give instructions to individuals with regard to appropriate dress, water and first aid. Be aware of common problems such as stings or bites (insects or snakes).
- Have appropriate Pathfinder-to-leader ratio.
- Have radio contact with camp headquarters in case of emergency.
- At the conclusion of the activity check to see that all Pathfinders are accounted for.
- The club should have a well defined plan in case of emergency. Each adult leader should have a copy of this procedure.

Note: In the Appendix you will find a suggested list of suitable activities that could be used in planning a nature awareness activity.

### Suggested Nature Stories for Pathfinders

Pathfinders who read nature stories are more likely to develop and maintain an interest in the natural world.

**Some story books that could be helpful are:**

Batten, H Mortimer. (1960). *Romances of the Wild*. Blackie & Sons, Ltd. Glasgow.

Durrell, Gerald (1965). *My Favourite Animal Stories*. Lutterworth Press, London, UK.

Seton, Ernest Thompson (1969). *Wild Animals I have Known*. Whitman Publishing Company, Racine, Wisconsin, USA.

Wilson, Erle (1955). *Coorinna. A Novel of the Tasmanian Uplands*. Longmans, Green and Co, London, UK.

### **Suggested devotional nature stories:**

Clark, Harold W (1955). *Nature Nuggets*. Pacific Press Publishing Association, Mountain View, California USA.

Lantry, Eileen E and Jay H (1976). *Stop, Look and Listen*. Review and Herald Publishing Association, Washington DC, USA.

Tucker, James A (1975). *Windows on God's World*. Review and Herald Publishing Association, Washington DC, USA.

Tucker, James A and Priscilla (1983). *Glimpses of God's Love*. Review and Herald Publishing Association, Washington DC, USA.

### **Inspirational titles:**

Cornell, Joseph (1987). *Listening to Nature. How to Deepen Your Awareness of Nature*. Dawn Publications, Nevada City, CA, USA.

Available in Australia from:

John Reed Books, <http://www.johnreedbooks.com.au/> John Reed Book Distribution  
PO Box 25, Tea Gardens NSW 2324. Phone: 61 2 4997 2936 Fax: 61 24997 2937)

### **Websites:**

Gould League of Victoria. [www.gould.edu.au](http://www.gould.edu.au), phone 03 9532 0909. Purchase books, posters and environmental activities guides. One suggested resource is: Gould League Environmental Starters.

# CHAPTER 7: Environmental Impact

What is the extinction of the wedge tail eagle to a child who has never seen a wren? (Robert Pyle)

## Methods of Minimising Environmental Impact

- Pioneering, the building of camp furniture, was popular up until the mid-seventies. The problem was that when a Pathfinder club went camping they would cut down young trees to get poles to build their camp furniture. Even though some clubs kept their poles for regular use, we now have a different view of caring for the environment.
- The protection of nature depends not only on organisational strength. It also depends on the quality of the relationship that Pathfinders have with nature and how they are attracted to the natural environment.
- The following table is an interesting summary of the key environmental concepts that should be used when conducting a nature awareness activity in relation to minimising impact on the environment. Note that one of the key factors is the attitude and behaviour of the participants.

Minimal impact education is more than the instruction of techniques designed to walk softly or tread lightly in natural environments. It is an opportunity to learn from nature to protect nature.

## Key Environmental Concepts for Outdoor Education

(source: adapted from UNESCO-UNEP 1978:3)

<b>Awareness:</b>	By encouraging participants to acquire sensitivity and appreciation of the environment through first hand experience in the out-of-doors.
<b>Knowledge:</b>	By encouraging participants to gain experience and understanding of the environment from programs conducted in natural settings.
<b>Attitudes:</b>	By encouraging participants to acquire values and feelings of concern for the environment by promoting an environmental ethic through structured learning experiences.
<b>Skills:</b>	By encouraging participants to acquire the skills for identifying and understanding environmental impacts and for developing methods for minimising such impacts.
<b>Participation:</b>	By providing participants with the opportunity to act constructively for the environment during present and future outdoor activities

(as quoted in: Minimal Impact Education: turning technique into discovery, learning and understanding. Danny Parkin and Deborah Bauchop)

## 1. Identify the major causes of environmental impact from nature activities

These may include:

- *Groups that are too large.* A small unit of Pathfinders may be able to negotiate their way through the bush and avoid ground orchids, mosses, fungi and other plants. However, a large group leaves a hundred footprints that destroy sensitive areas.

Large groups have the impact of high noise levels. The movement of the mass of Pathfinders will frighten animals and birds to the extent that Pathfinders will see and hear very little.

- *Collecting specimens.* Pathfinders doing nature study should be encouraged not to pick flowers or collect live shells, butterflies or insects. There are more effective ways of identifying nature objects such as:
  - ◆ Digital photography
  - ◆ Drawing
  - ◆ Painting

## 2. Outline methods of minimizing environmental impact

It takes time and detailed thought to prepare and conduct a well structured minimal impact nature awareness activity.

Knowledge is not the same as understanding; so we need to model excellent environmental behaviour in our activities.

- *Use Reference and Field Guide books.* By taking a reference or field guide book the participants are able to identify specimens in the pictures of the reference book. These can then be ticked off on a list in their log book.
- *Use Log Books.* Some clubs follow Conference practices and produce log books for outings or expeditions. These log books have illustrations of birds, trees, flowers, shells, animals or plants that the Pathfinders can use to check their discovery.
- *Take photographs and make a scrap book.* Encourage Pathfinders to take photographs or make up a nature scrap book as a way of recording their collections. There is saying 'take nothing but photographs and leave nothing but footprints'.
- *Stay away from sensitive areas.* Some areas of our natural environment are sensitive. These are usually sign-posted in National Parks or reserves. The sign will say: Stay on the path. As we develop a love and rapport for the environment we will be very conscious of the effect we have on the fragile nature of the area and its ecosystems.
- Encourage the Pathfinder group to discuss and list guidelines that they would be prepared to adopt as a contract for caring for the environment. Pledges and personal promises work well with younger Pathfinders.
- Encourage Pathfinders to develop a sense of ownership of the natural area. Often this can be achieved by constructing dioramas out of natural objects; for example pictures, paintings or 3-D models of special parts of the area. Then, as the Pathfinders are standing around observing their work the leader can tramp through it. Ask the Pathfinders how they felt

about their handiwork being trodden on. From this we can help develop sensitivity and an understanding of the importance of minimising environmental impact.

### 3. Demonstrate good environmental awareness

- Strengthening Pathfinders' self-confidence in the natural environment helps to arouse their senses. Their awareness of the world and what moves in it, seen and unseen, strengthens their confidence. The cry of an animal in the night, the song of bird at dawn, the sound of a kangaroo hopping in the undergrowth in the darkness is no longer a fearful thing because they have learned to recognise these sounds.
- Good awareness skills help participants to distinguish between sounds that may be dangerous and those that are known. Some skills we should teach Pathfinders are:
  - ◆ *Being able to be quiet* so that they can listen and see new things. Use the Mini *Solo* game (Refer to the Appendix).
  - ◆ *Moving slowly*. It is the sudden movement that frightens animals and birds. Their eyes and senses are tuned to the sudden attacks of their enemies.
  - ◆ *Stalking creatures in the bush*. There are games that can be played with Pathfinders to enable them to learn how to stalk. Games such as *Capture the Flag* and *Spotlight* are helpful. However, when it comes to getting close to creatures in the bush there are some skills that need to be learned. There is a real joy in being able to get close enough to a bird or animal so you can watch what it does when it thinks there is no one around. Wild animals will try to get away from you because they are sure you are there to harm them. They protect themselves by smelling, hearing, seeing and sensing vibration. Their senses are more highly tuned than in humans. If you want to get close don't be smelt, don't be heard and don't be seen.
  - ◆ *Don't be smelt*. Smell travels on the breeze. Lick your finger and hold it up. The cold side is the one from which the wind is coming. Throw dust or straw into the air watch where the wind blows it. Always place yourself downwind.
  - ◆ *Don't be heard*. A snapping twig, a dislodged rock or the crunching leaf will warn the animal that you are coming long before you have any chance of seeing it. It is best to stalk when the wind is blowing. Other noises will camouflage yours. Stop sneezing by pressing a finger below the nose. Don't talk. Use hand signals to communicate.
  - ◆ *Don't be seen*. There are several things that make the observer easy to be seen:
    - i. Bright flashes of light on a watch or buckle that reflects the sun.
    - ii. Your shadow can give you away so stay close to cover and only move when
    - iii. The cloud covers the sun. Move very slowly in the shadows around you.
    - iv. Avoid contrast with your background by keeping low. When approaching a hill top you will stand out clearly against the sky; so crawl over the hill or behind rocks.
    - v. Keep your head low when peeping around a boulder or from behind a tree.
  - ◆ *Avoid sudden movement*. Walk slowly but deliberately. By walking parallel to the animal or bird you will find they are not so alarmed. If you wish to come close then remember the three Cs that are important: crouch, creep and crawl. If the creature becomes nervous then remain still until it relaxes.

- ◆ *Attract birds and animals.* Sometimes you are able to stop an animal from running away by making a noise. A dog bark stops a kangaroo. By sucking the skin on your hand you can imitate the distress call of a baby bird. Adult birds will then come to check it out. By standing close to a shrub or small tree you can get birds like fantails and wrens to come very close to you (you can buy bird callers from stores such as *Australian Geographic*).
- ◆ *Respect wild creatures.* Creatures have learned to fear humans because they believe we will harm them. By chasing them and trying to catch or injure them Pathfinders confirm the fear of the wild creatures. On the other hand Pathfinders who live close to nature are able to re-build trust. Respect can be shown to creatures by being careful not to disturb their habitats or their nests and remaining at a distance from them.
- ◆ *Tracking.* As we go on nature hikes we often see tracks or drag marks in the sand, on the road or in the creek bed. Other tracks can be seen in soft earth.

Australian Indigenous people have developed the amazing skill to read signs left on the ground by animals and people. This training begins in early childhood with tracks of birds, lizards and kangaroos in the sand. Later in life the skill is developed so that stories can be told of real life natural dramas that are observed such as a fox chasing a rabbit along the hillside. Indigenous people are also able to see signs that others may not noticed and are able to follow tracks for long distances.

Indigenous people also have skills that enable them to survive in the bush and also help save people who are lost.

Pathfinders may never reach the standard of tracking used by Indigenous people. . However, they are expected to learn to identify simple animal signs as they go into the bush, along the beach or in the snow.

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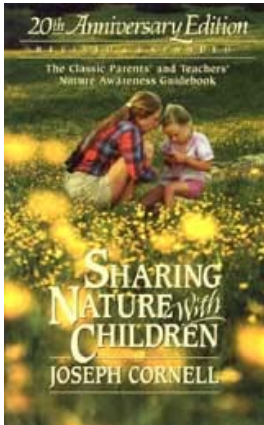
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# Appendix 1: Recommended Resources

These books are inspirational titles recommended as texts.



## Sharing Nature with Children - 20th Anniv. Edition

[Joseph Cornell](#) As Joseph Cornell's classic book reached its 20th anniversary, Cornell drew upon a wealth of experience in nature education to significantly revise and expand his book. New nature games - favorites from the field - and Cornell's typically insightful commentary makes the second edition of this special classic even more valuable to nature lovers world-wide. The Sharing Nature movement that Cornell pioneered has now expanded to countries all over the globe. Recommended by Boy Scouts of America, American Camping Association, National Audubon Society and many others. *"Sharing Nature With Children is not just another book of facts, but is grounded in philosophy as well as information, which shares equal status with attitudes. Love of nature and sensitivity to the natural world are major forces motivating both*

*nature study and conservation, and these attitudes can be developed in an authentic and lasting way by personal experience close at home..."*

*Southern Maryland Parent Line (June 2004)*

ISBN 1-883220-73-4



This second volume, formerly titled "Sharing the Joy of Nature," is a treasury of some of Joseph's favorite nature games for both adults and children. Joseph also introduces his remarkable technique of Flow Learning, showing how to match nature activities to the interest and energy levels of children, and to organize them in a way that works, placing them in thematic sequence to ensure a genuinely uplifting experience. Cornell's unique blend of knowledge and warmth creates a contagious atmosphere for learning. *"More magic from Joseph Cornell for parents, teachers and children. Nature comes alive by using these hands-on activities evolved from his sensitive strategies. Your spirit is reawakened as these activities reconnect you with the beauty and delicacy of the natural world."*

ISBN1883220-87-4

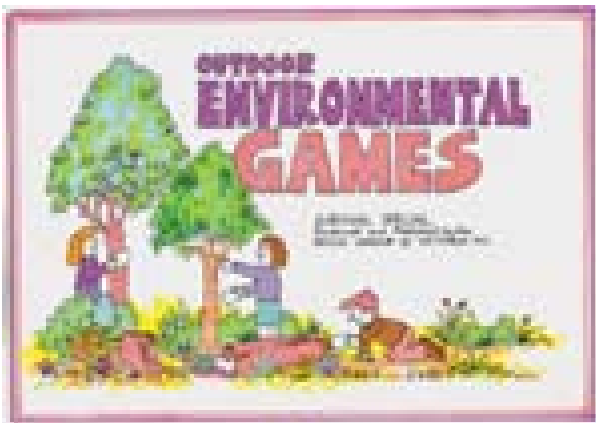


Here is a beautiful gift book that transports adults into the quiet mystery of nature. For each day of the month, the reader is treated to an inspirational quotation from the likes of Muir and Thoreau, sensitively highlighted with a stunning colour photograph by award-winning Sierra Club Calendar veteran John Hendrickson.

*"...Sure to become a classic. The book is a splendid masterpiece that captures the "Oneness" we are all seeking to achieve with Nature. It is a triumph in bringing all people back to the Earth, and in closer touch with the real treasures of life."*

ISBN 0-916124-35-5

- Some excellent videos are available from the Tasmanian Parks and Wildlife:  
*Walking the Fine Line*, 1996, Tasmanian Department for Parks and Wildlife, Tasmania.  
*Walk Softly, Minimal Impact Camping*, 1996, Tasmanian Department for Parks and Wildlife, Tasmania.  
*Walk Safely*, 1989, Tasmanian Department for Parks and Wildlife, Tasmania.
- The Gould League has some excellent resources on the environment. Shown below is an example. This book containing games is available from: The Gould League, Genoa Street, Moorabbin Vic 3189 or visit the web site: [www.gould.edu.au/shop](http://www.gould.edu.au/shop)



**Product Description:**

Heaps of outdoor environmental games, fitting somewhere between Problem Solving and Free Play on the experience continuum, to help children experience the environment through play.

Play can help children develop their own feelings and attitudes towards the environment and realise their capacity to change environments. What an interesting way to learn!

Authors: Alan Reid and Harry Breidahl

## Appendix 2: Nature Arts, Crafts and Collections

Children and adults enjoy collecting. Collecting rocks, sand, fossils, seeds, shells and other natural objects is another way of nurturing Pathfinders' interest in nature. It is also a tangible way of preserving and cataloguing a collection.

Listed below are a variety of ideas for types of nature activities that are appropriate to Pathfinders:

### 1 Rocks and Minerals

Make collecting rocks and minerals one of the activities for your club campout. By contacting individuals who have this as their hobby you can find good locations to visit. Some clubs are fortunate to be near areas where agate and thunder eggs are found. Plastic boxes with compartments are good for storing collections.

### 2 Sand

Pathfinders love to visit the beach. Why not encourage them to do the sand honour. By contacting your local dentist or hospital you may be able to obtain used glass vials free. Wash them out and put the sand from places you have camped at during the year in these containers. It is important to label these or number them and place them in a specimen box with a clear lid. On the back list the numbers and locations where the sand was found as a reference.

### 3 Fossils

Fossils are becoming very popular to collect. You will not find fossils in all areas. However, you will be surprised that there may be areas near you where you can fossick. You may need to obtain a permit or permission to collect fossils.

Collecting fossils is an ideal opportunity for you to discuss evidences of the Biblical flood and therefore creation and evolution in a Christian context.

### 4 Seeds

There is a wonderful variety of seeds that can be collected. This activity provides a good opportunity to discuss how seeds are spread. Collections may be treated in the same way as sand, using a specimen case instead of the vials. You may use cotton wool to keep the seeds from moving in the container. This also allows you to display them in an attractive way.

### 5 Shells

Shell collecting is a great way of keeping up the enthusiasm of Pathfinders while going for a walk along an isolated beach. Be careful not to take live shells from National Parks or reserves. Be aware of any legal restrictions relating to the collecting of shells.

### 6 Resin Embedding

Crafts such as resin embedding of inanimate nature specimens are popular because they combine a craft with an honour.

### 7 Art

Pathfinders who enjoy art will gain satisfaction from leaf or fern painting. Use card or art paper and place the leaf or fern on the card. Spray a silhouette of the leaf by holding a pressure spray can of paint 20 cm away from the object. When the leaf is removed it will leave an attractive design.

## 8 Spider Webs

By using a similar method with unused spider webs participants may create a wonderful effect.

## 9 Bark Painting

By using different textured barks Pathfinders may create a picture by gluing pieces of bark onto a piece of card. Paper bark is good for this project.

## 10 Nature Scrapbooking

Scrapbooking photos to create decorative memory albums is a very popular craft. These scrapbooks are a creative way of putting together a record of different natural objects that have been observed. It is suggested that the scrapbook page includes some journaling to enhance the memory and keep a record of details.

Some popular scapbooking themes for memory pages created for the photos could include: birds, flowers, fungi, insects, butterflies, reptiles. Most nature honours may be catalogued in this way.

## 11 Make a Plaster Cast of Animal Tracks

By having Pathfinders make plaster casts of animal and bird tracks they soon become aware of reading the signs of nature seen when walking in the bush.

## Paper Quilting

Using heavy duty papers and scraps of paper you can make a base to which an object from nature can be attached or sewn. This can then be framed.

## Appendix 3: Nature Meditations

In his book, *Sharing the Joy of Nature* Joseph Cornell suggests that nature meditation is one of the favourite activities that helps people to enjoy the natural environment. He writes:

*'To play nature meditations you will need to collect a number of inspired sayings and write them on cards, one saying per card. Each saying should have an accompanying activity that helps the reader translate the idea into personal experience. If you don't have enough different quotations to give to each person it is OK to give the best sayings to more than one person.'*

*Examples of quotations are:*

My heart is tuned to the quietness that the stillness of nature inspires. (H I Khan)

The best and most beautiful things in the world cannot be seen or touched. They must be felt with the heart. (Helen Keller)

I go to nature to be soothed and healed and have my senses put in tune once more. (John Burroughs)

Teaching children about the natural world should be treated as one of the most important events in their lives. (Thomas Berry)

It is not the language of painters, but the language of nature which one should listen to. (Vincent Van Gough)

Let nature be your teacher. (William Wordsworth)

I am well again, I came to life in the cool winds and crystal waters of the mountains. (John Muir)

Man's heart, away from nature, becomes hard. (Luther Standing Bear)

Our children no longer learn how to read the great book of nature. (Wendell Berry)

By communion with God in nature the mind is uplifted and the heart finds rest. (Ellen White)

All who go into the fields with Christ in their hearts will themselves be surrounded with holy influence. (Ellen White)

Jesus loved the scenes of nature. Here, surrounded by the works of His own creation . . . thoughts of his hearers were turned from the artificial to the natural. To him each quiet retreat was a sacred temple. (Ellen White)

Teach the children to see Christ in nature. . . . Teach them that he made the laws which govern all living things. (Ellen White)

➤ ***Activity Instructions***

In order to listen to the sounds that are around and the silences that are between sounds, instruct each Pathfinder to find a quiet place. This place should be somewhere on their own, out of sight of any other person.

Pathfinders are reminded that this is a quiet activity. Allow 10 or 15 minutes for reflection then call the group back together and ask them to sit in a circle and share what they experienced.

Remind Pathfinders that when their mind wanders they should re-read the saying that they have been given on the card. This will help them to focus on the activity that they are involved in.

This activity may be challenging for young Pathfinders but worth a try. Certainly it is excellent to use with Pathfinders on a leadership camp.

## Appendix 4: Mini Solo

- The following instructions may be on a card given to each participant, with a pen:

Select an area with no other person in sight. Find a soft rock to relax on.  
How do you feel being alone?

.....

What sounds did you hear? (Insects, animals, birds, etc)

.....

What does silence do to you? (ie scared, reflect and think, silence, noisy)

.....

In one sentence sum up in your own words how you feel about God as a creator from the thoughts of your solo time.

.....

.....

- Invite the individuals to come back to the main group. Sit in a circle and share their responses.

## Appendix 5: Prayer

- Invite Pathfinders to write a prayer to God about nature.
  - At the campout involve the Pathfinders in preparing a worship activity using their senses, involving a nature trail, observation of plants, animal tracks and sounds.
  - At the end of the activity have one of the Pathfinders read verses of scripture on the nature theme and invite Pathfinders to write a prayer for nature.
  - Give some memento to each participant, such as a gemstone.
- Here is a suggested selection of Bible verses:

### The Trees of the Field:

#### A selection of Bible verses about trees and praising God

Eze 17:24                      Every tree in the forest will know that I, the Lord, can bring down tall trees and help short ones grow.

I dry up green trees and make dry ones green.

Rev 22:2                      A river that was crystal clear came from where God was. On each side of the river are trees that grow a different kind of fruit each month of the year. The fruit gives life, and the leaves are used as medicine to heal the nations.

Isa 55:12                      You will go out in joy and be led forth in peace; the mountains and hills will burst into song before you, and all the trees of the field will clap their hands.

Psalms 48:1                      Great is the Lord and most worthy of praise.

Psalms 46:10                      Be still and know that I am God.



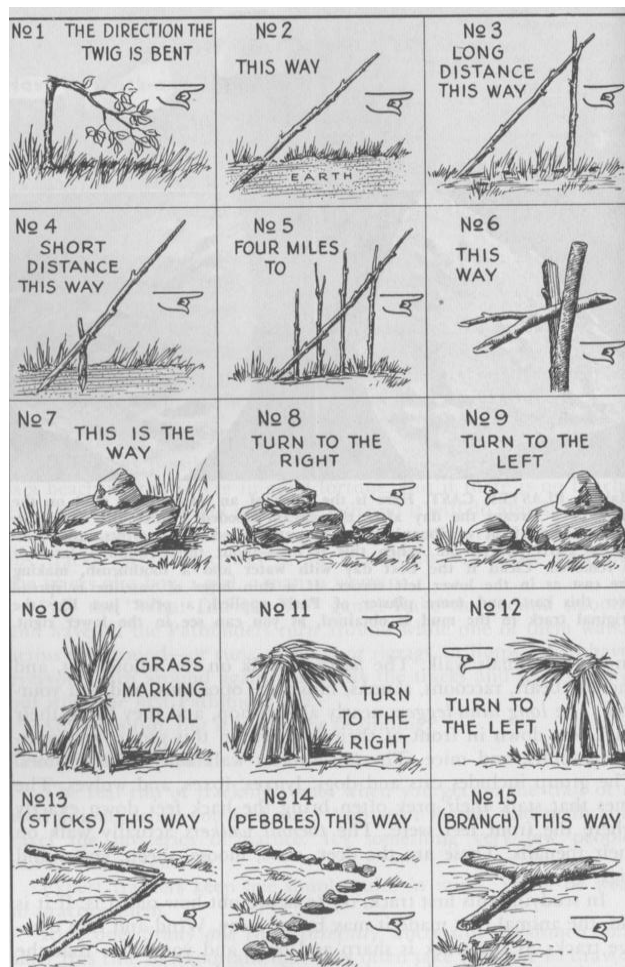
# Appendix 6: Tracking Skills

This activity can be used to help Pathfinders enjoy developing their tracking skills.

## 1. Track and Trail

Pathfinders enjoy following tracks and signs left by other Pathfinders. Have several members of your unit go ahead and mark a trail. Then some time later have the remainder of the group try to follow the trail. The last person in the following group removes the signs.

In the picture below are symbols that are commonly used for track and trail activities.



Reference: Pathfinder Field Guide, p86

## 2. Every Track Tells a Story

Every track you see has a perfectly reasonable explanation. The more skill you use in reading the signs the more you will be able to enjoy the natural world around. Start with identifying the footprints of each Pathfinder club member. Can you tell the difference between children and adults, male or female? Were they running or walking? Where tracks overlap which one is on top?

You should be able to recognise the tracks of common domestic animals and those of some of our more common native animals and birds, for example: kangaroo, wombat, possum, goanna, lizard, snake, bird, duck.

### *Resource Books*

Other interesting activities may be found in:

*MV Pathfinder Field Guide, Stories of footprints, pp83-93*

*Australian Boy Scouts First Class Handbook, pp30-35*

## Appendix 7: Nature Games and Sabbath Projects

### 1 *Ten Stones*

- Each Pathfinder is given ten stones.
- As the group hikes along, the leader points out an object and asks a question regarding it.
- Then the leader asks someone to give the answer. Each person who knows the correct answer may discard one stone.
- The winners are those who are the first to discard all their stones.
- This can also provide opportunity to teach honesty, for each must judge whether he has the correct answer in mind.

### 2 *First Man Up*

- The group on the trail is stopped at convenient places where the leader directs their attention to some nature object.
- He then asks the Pathfinder in the front of the line a question. If the Pathfinder knows the answer the Pathfinder may stay up front, but if the Pathfinder does not know the answer they go to the back of the line.
- The group should not number more than fifteen.

### 3 *From Where I Sit*

- This game may be played in the bush or near a garden. The Pathfinders are seated in a circle. The first one says, 'From where I sit I see a (name of flower, bird, insect, etc)'.
- The second player says, 'From where I sit I see a (names player number one's object) and a (name another object)'.
- A player who cannot name the previous player's object becomes a third of a flower. When the player becomes a whole flower the player is dropped from the game. Please explain!!!!
- A player may challenge any other player as to the existence of the object named. If the challenger finds the former player was correct, the challenger becomes a third of a flower. If the challenger is correct, the player who named the wrong object becomes a third of a flower.

### 4 *Secret Numbers*

- This is one of the favourite nature games. The nature leader lays out a trail in advance of the game with as many stations as desired. Simple objects should be used for the beginners to make it easier for them to follow the trail.
- A secret number will be determined at each station. At the end of the game the nature leader gives the total of the secret numbers. Those who have the correct answers from each station should end up with the same total.

- It is good to recount the various stations with the group, and perhaps an opportunity can then be taken to instruct them regarding some of the objects they saw on the trail.

The following are suggested directions:

- *Trail begins here.* This tree is a white pine. The secret number equals the most common number of needles in each bundle on this tree. The next note will be found at the base of the largest tree you can see to the south of this point.
- This tree is a sugar maple. If the leaves of this tree are arranged in two's opposite each other on the twig, the secret number is 10. If the leaves are alternate and not opposite, the secret number is 5. The next note will be found under the bark of a large stump. Continue south along the trail.
- Each ring on a stump indicates one year of growth. If this tree was more than fifty years old when cut, the number is 20. If the tree was less than fifty years old when cut, the secret number is 10. Continue along the trail and look for the next note in the first drainage pipe under the trail.

#### 5 *Nature Treasure Hunt.*

- A list of specific leaves, insects, and other nature objects is presented to individuals, or small groups if the club is large.
- Those participating are to go out into the field and find the objects listed. There may be some items to be collected, some to be heard, and some to be observed.
- A point system may be worked out, giving more points for objects more difficult to find. This game can often consume two to four hours.

#### 6 *Creation Week*

- This game is played by dividing the Pathfinders into six groups, each group representing one of the days of creation.
- At a given signal the groups go out and collect specimens that were created on the day they are representing.
- At a given time the groups all return, and beginning with the group representing the first day of creation each group shows its specimens, telling as much as possible about them and how they fit into the week of creation.
- For such days as the fourth day of creation where one cannot bring the sun, moon and stars, the group will have to bring in some of the things that are affected by the sun, moon and stars; for instance, the sun is responsible for green grass.
- So that everyone has a part in the game it is better if everyone in the group has a chance to speak and not one spokesman only.

#### 7 *Find Me*

- Five to twenty-five persons may play this game. Each one in the group should be given a list of things he would likely see during a hike.

- Value points may be given to each object, depending upon the difficulty in finding that object.
- Participants may compete individually, or groups of four or five may be formed if there are enough participants.
- A restriction should be placed upon the distance to prevent going too far in search of objects.
- The leader should be stationed at the centre of the field, and a time limit should be set and a whistle blown calling all participants in. Groups or individuals are then scored.

## 8 *Nature Hunting*

- Participants may number fifteen to sixty, with ages ranging from junior to youth on up.
- Make a map of the hunting area and designate several points about equally distant from the starting point.
- Arrange the participants into groups of four or five and send each group on a hunting trip to a definite point. Fifteen or twenty minutes may be allowed for the trip and return.
- When the groups have returned, call for reports on what was seen. The report may become very interesting when the groups report in detail on the various objects discovered on the hunting trip.
- The leader should be one who is familiar with the interesting objects in the area. It may become necessary for the leader to explain some of the unusual things seen.

## 9 *Tree Tag*

- Four to twenty may play. One person is '*it*'.
- A certain kind of tree is designated as *safe* and participants cannot be tagged when touching it.
- To make the game more interesting the leader may from time to time change the tree that is *safe*.
- In this way the Pathfinders rapidly learn to identify trees.

### ▪ **Alphabet Treasure Hunt**

*Aim:* To help Pathfinders see value in the simple things around them.

*Resources:* Prepared stencil of the alphabet  
Pencil, paper  
Bag for collecting

*Age Group:* Very adaptable to all age groups. Older young Pathfinders will find some letters of the alphabet more challenging.

*Instructions:* Older Pathfinders may prefer to collect individually (or in pairs).

Divide younger Pathfinders into pairs with an adult in close proximity for supervision to encourage and point out things the Pathfinders may be missing.

Challenge the Pathfinders to collect one object for each letter of the alphabet. Set a time limit of one hour with 2 points being allotted for each object they can display. Total points possible = 50.

As they collect items tell them to cross out the letter from their listing of the alphabet to save confusion or doubling up.

When they return, adult markers say the letter of the alphabet and Pathfinders display the relevant object and are allotted points.

As a variation, younger Pathfinders may like to make a project chart and illustrate attractively what they collected for each letter.

➤ *Example*    Ant    Bark    Caterpillar    D  
Use drawings of each to go with the object

Good luck with X, Y and Z!

## Appendix 8: Making Hikes Interesting to Pathfinders

The one golden rule for making nature hikes interesting is to have an objective. This will change an aimless walk into an adventure. It will change an otherwise idle trip into a treasure hunt. If you go out to find orchids, the commonest little orchid will become a great prize; if you are looking for insects, the most ordinary beetle will assume great value to the collector.

A group of Pathfinders who are focused on fulfilling the requirements for one of the Pathfinder Honours in nature are always very keen to find specimens and make observations that will help them to achieve their objective. However, not all Pathfinders are interested in actually earning an Honour. Listed below are some ways to interest them in nature.

- *A Hunting Party* – cameras instead of guns. Photograph natural objects and have an exhibition later, with possibly a prize for the best photo, the most unusual one, or the one that required the most effort and patience.
- *Pitfalls for the Unwary* – look for spider's webs, doodlebug traps etc.
- *Accidents or Untimely Ends* – May suggest a search for a rock split by a tree root, leaf partly eaten by insects, some plant crushed by careless feet, or a tree blown over or cut down.
- *Remnants or Discards* – This is just another way to say the search this time is for such things as a lost feather, cast-off skin of an insect or snake, forsaken nest of a bird or wasp, fallen leaf etc.
- *Hitch-Hikers and Parasites* – Ticks on a possum, burrs on a sheep's wool, barnacles on a clam shell, leaf parasites etc.
- *Bush Scents* – Collect anything with a distinctive odour, and test blindfolded Pathfinders.
- *Feel It* – Guess what it is by touch.
- *Bush Restaurants* – Bees or other insects getting nectar from flowers, ants milking aphids, birds eating wild fruits.
- *Bushland Apartments* – Bird's nest, wasp's nest, ant-hills, rabbit warrens.
- *Bush Babies* – Pupa or chrysalis of moths and butterflies, birds' eggs, ants' larvae, fern prothallus, seeds of all kinds.

