

Outdoor Education cont.

1. Information - It will be essential for the nature leader to first impart some knowledge on a give nature subject before the junior youth can be taken on a successful field trip. Before a bird field trip is taken the class should know something about the feeding habits of the different bird families. The Pathfinder will also need to know something about the way different birds fly. Facts about nesting habits, migration, etc. will make the trip much more interesting. Information on these various specific plant and animal subjects can be found in the MV Honour booklets.
2. The Season of the Year - The purpose and specimens to be observed or collected must be considered in light of the time of the year you plan to be in the field. Insects would need to be collected in the spring and summer while seed pods and budding branches could be studied during the fall and winter.
3. The habitat - This is where various plants and animals live. A trip to a cave to study bats could be planned. The nature leader would need to know where birds might be seen before conducting a bird trip.
4. Equipment - If specimens are to be collected, study must be given to the proper kind of equipment, such as nests, killing jars, cages, field glasses, etc.
5. Dress - Proper wearing apparel is important. If the group is to collect shells, they would dress differently than if they are to collect insects.

Where to Go

A year-round nature program is possible, including field trips. These trips will allow the instructor to create an interest in other nature classes. For example, while the class is studying birds on a field trip, insects and flowers may also be pointed out and an interest sparked for future classes. Perhaps the following suggestions will aid in sparking ideas.

1. Museums and Zoos - Almost every area has a good museum or zoo that would afford good opportunity to stimulate interest. Suggestions for a club museum might also result from such a trip.
2. Parks - Most city, country or State governments have provided parks. These places will give wonderful opportunities to study plant, insect, bird and animal life.
3. Forest Service - Federal and State forest and agriculture services provide many wonderful field-trip possibilities. Through them Pathfinders may learn what insect pests threaten crops and forests. They will also learn what native plants and animals can be seen in their area. Many clubs could visit forest service headquarters to learn how forests are protected from fire.

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4. Nurseries - These would also afford good field trip choices for any group studying flowers or trees. How plants are grown, their care, and choice of certain plants for various living conditions would all add interest. Such trips might also aid in plans for a club museum.
5. Mountains and forests - These wide-open places are ideal for field trips. Here the instructor has opportunity to point out the various plants, insects, and other life that live together to benefit one another. The group can walk or sit, quietly watching the wildlife about them.
6. Farms - The group may learn much from a trip to a farm or a nearby dairy. Many youth would learn about the contribution that animals make to human comfort and needs. The planting, growing, and harvesting of various crops would remind the youth of the Creator's love in providing for man's needs.
7. Meadows - Here the nature instructor could find much to interest the Pathfinder. Frogs, snakes, turtles, insects, flowers, and many other forms of life may be found.
8. Streams and Lakes - An abundance of life awaits the seeker at these places. Man-made ponds also provide good field trip possibilities.
9. Beaches and Shores - Water attracts many forms of life, and fortunate is the nature leader who has access to such places for nature study.
10. Quarries - Nature study possibilities at old rock quarries include minerals, fossils, animal life etc.
11. Refuges - There are many public and private refuges across the country, which provide excellent nature study. These sanctuaries often have wild animals that have become tame, and they may provide close-up study of animals usually seen in the field at great distances only.

Now Take Off

Following the discussions of the above information, plan a short specimen-collecting trip. Have the Pathfinder leaders collect various specimens. Perhaps the instructor could have them gather material to use in making an aquarium, or perhaps some reptiles could be found. Have the class collect material that can be used in the following portion of the course, Collections and Displays. The instructor should ascertain beforehand the regulations regarding collecting of specimens, animate or in-animate, in any given area.

2. COLLECTIONS AND DISPLAYSProject

Following the lecture phase of this subject, the instructor should spend at least one hour with the class arranging an aquarium or terrarium display. The material brought in by the class during the field trip could be used. Important information, such as when, where, and by whom the specimens were collected, should be placed with all nature items.

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Materials and Equipment Needed

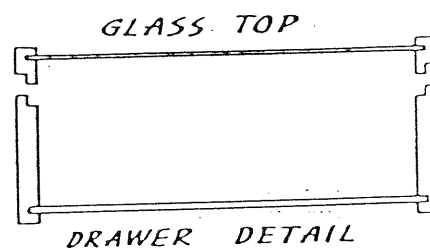
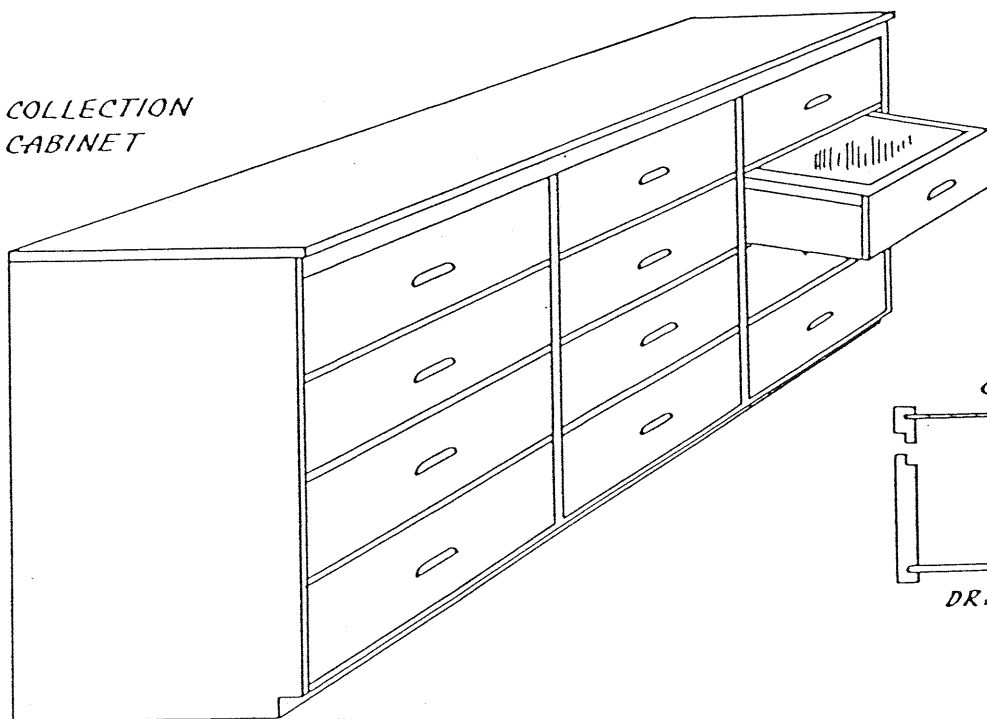
There should be insect drawers, insect boxes, Ricker mounts, and other display methods to demonstrate to the class. Prepared aquariums, terrariums, and various cages could be used with profit. A library of nature field guides and other nature books should be displayed.

Display Cabinets

Proper cabinets, drawers, and boxes to display the items are essential. A study of the AY Honour booklets will provide many suggestions on collecting and displaying such specimens as mammals, insects, flowers, reptiles etc. Attractive drawers for display and compact arranging of various nature specimens can be provided without a great deal of expense. The building of live animal displays will also add greatly to the club museum. In-expensive live animal habitats can be made from house-hold articles. These include terrariums and aquariums.

A cabinet with glass-topped drawers is the ideal way to keep various collections. Shells, rocks, Indian artifacts, butterflies and other insects can be kept in these drawers and displayed when desired without too much danger of having the display damaged by fingers of viewers.

COLLECTION
CABINET



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Terrariums

Live animal displays are always of interest. These can also be built permanently into the museum, or a less expensive way would be to use terrariums and aquariums on a shelf. Terrariums are usually made of wood with glass fronts. They can also be made of cardboard boxes with glass or plastic fronts. The tops should have wire or screen to keep the animals from getting out. A terrarium is used to reproduce the habitat of various mammals, reptiles, or amphibians. Each terrarium should re-create the actual habitat in which the animal lived. Desert animals should be provided heat. This can be accomplished by sunlight, an electric light bulb suspended in the cage, or by other heating methods. Including twigs, rocks, mosses, ferns or cacti of the area from which the animal was taken will provide a more realistic touch. The terrarium should include some provision for water, and creating a natural-appearing water source is desirable. The use of blue paper and glass partially covered on the edges with sand can often be made into a realistic appearing pond or lake.

Acquariums

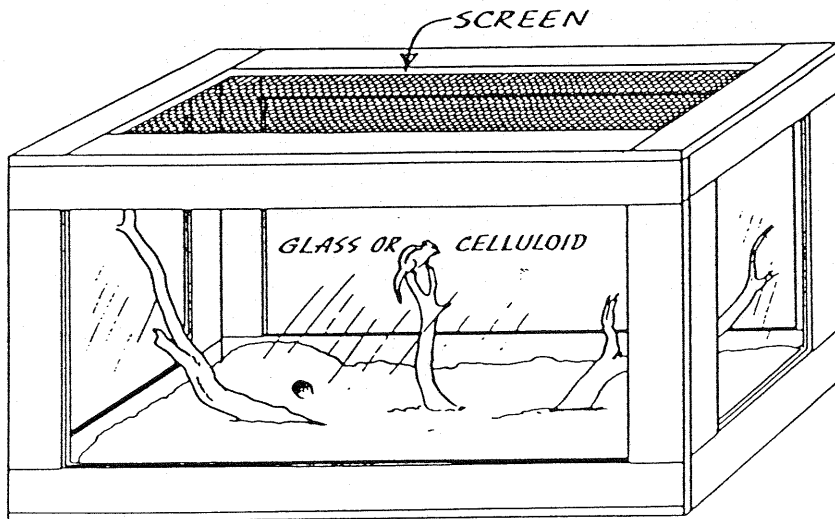
Frogs, toads, and other amphibians often require a damp habitat such as a woodland marsh or pond. These animals may be successfully kept in an aquarium. Displays can be made from aquariums purchased at a pet store, or pieces of glass can be purchased and secured together. Care must be taken, however that the joints do not leak. The use of a wood or metal frame with the glass mounted in putty is ideal. A large glass jar will also provide a good aquarium. In order to keep the aquarium damp, a piece of glass over the wire top will hold the moisture in and provide the condition needed.

Tadpoles, water beetles, dragonfly larvae, and many animals also make for interesting exhibits in a museum. These animals should have their habitat reproduced. This can be accomplished by taking water from the pond or lake along with the native plants growing in the water as well as on the surface and along the shores. The plants will help maintain the proper balance in the aquarium.

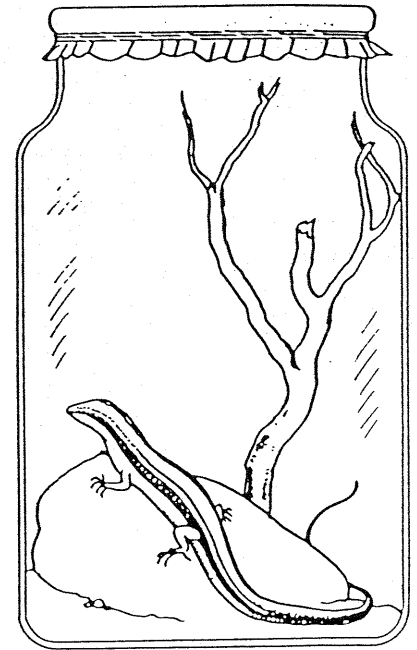
Cages

Small mammals, such as rats, mice, gophers, and squirrels can be kept in wire cages. These little animals are always interesting to observe. The wild native animals are more desirable than domestic rats and mice. They are cleaner and provide more challenge for collecting and study.

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LIVE ANIMAL DISPLAY TERRARIUM

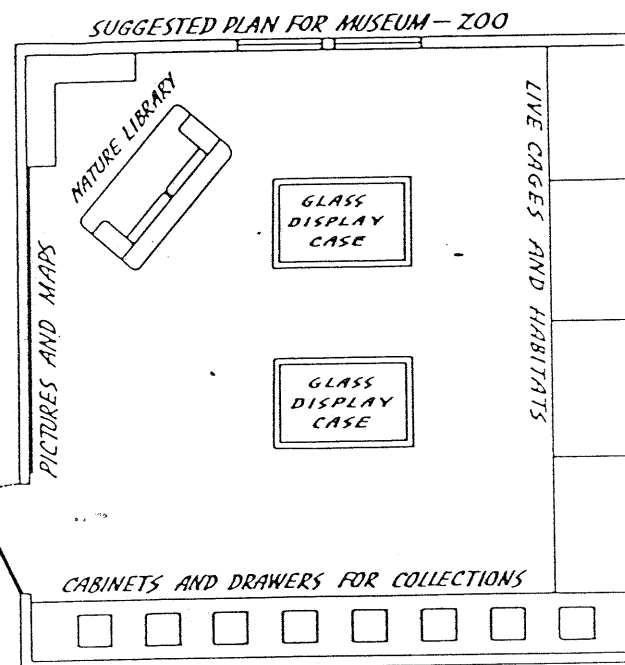


LIVE ANIMAL DISPLAY AQUARIUM

Making a Museum

Most junior youth have a natural desire to collect things. A museum can become a tool to interest Pathfinders in different nature subjects. It can also become useful in teaching various nature subjects by the use of specimens in the museum. It becomes a show place for others to see what the youth are learning about nature.

A good museum depends upon interesting displays of properly prepared collections. A museum can tell fascinating life histories of flowers, trees, insects, birds, mammals, and almost all forms of life. A club museum project to collect various specimens needed to complete certain stories being developed in the museum would also add interest to field trips. In developing a museum the nature instructor will probably want to include some live animals and plants as well as other properly prepared collections.



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3. NATURE IN THE CAMPING AND PATHFINDER PROGRAMA Good Selection of Classes

Through encouragement, we require each camper to take a nature class, because we feel that it is vital for the camper to become acquainted with God's second book, Nature. Because of our new Nature Center, it may be easier for us to insist on this requirement. Our Centre which is a centre of learning, of course, has eliminated much of the negativism we used to get from the kids.

By offering a goodly number of nature classes and adding new ones from year to year, you break the campers "sail" who said, "I've taken all of those classes." With new nature classes appearing in the handbook from time to time, this all becomes easier. Sabbath afternoon is a golden time for Pathfinders to work on nature classes. Kids love to do things with their peers. Sabbath afternoon revolving program at Camp or in a Pathfinder program on nature can be fun and very educational.

Nature Centre and Location

Have the nature centre located in an area that is in a natural setting. I don't know how many of you have had the opportunity of seeing our nature centre in Michigan. I hope you will sometime, if you haven't. This has been the greatest thing that has ever happened to us at camp as far as our nature program is concerned and it's influence has been felt in the overall camp program. It has added a new dimension to our camping because it is a really beautiful educational centre for learning and fun.

It has a full basement, main floor, and upper floor. It is all carpeted from the basement up, which has given it a reverence all it's own. It has two eight foot decks, running three-fourths of the length of the centre. There are 19 diorama that we have made to show the animal world in its natural habitat.

Remember to try and locate the centre in an area that is in a natural setting. It should be an area that is designated just as a nature wilderness. Horse, mini-bikes and the like should not be allowed in that area, or anything else that would tend to disrupt the natural state.

Adult Teachers or Craft and Nature Enthusiast

As far as possible have adult teachers. If you can use your school teachers who are enthusiastic, this is good. Or young people who are interested in nature and ambitious. There are people in every local church who qualify but you may have to convince them that they can help you.

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AY Honours

Try as far as possible to select those areas that culminate in the receiving of a vocational honour. We do not make it mandatory, but we tell the kid when he comes to the class that if he wants to get an honour, we will do all we can to help him get the honour. However, if he wants to take the class for fun, that's just great. We leave it open so they don't feel pressured. Make sure that the instructors have the campers and Pathfinders meet all the basic requirements before receiving the honour. Make it honourable. Also, encourage instructors to add their own input into the class. Make it possible for each camper or Pathfinder to have something "neat" to take home from his nature class.

Items to make and take home:

1. 30 vials of sand for the sand honour.
2. A rock, shell, fossil or flower collection.
3. Decorative piece from a class in shells or make flower arrangement.
4. A sand picture or terrariums.
5. Make meal, jelly or teas in edible wild plants.
6. Seeds in glass bubble or mounted on board to make owl, etc.
7. Butterfly or insect mounted in a glass jar.
8. Bird class could dissect owl pellet and reassemble the skeleton within or make a bird house or feeder or paint picture of bird on a rock or birch log.
9. Track of animal mounted in mount.
10. Take a picture of camper or Pathfinder with mammal or snake and trim it with natural materials.
11. Use petals of pine cone to make duck or owl - like shingles on a roof over pre-cut body.

Contests and Awards

We have contests and awards to inspire greater enthusiasm in the book of nature and to make it more attractive. Some of the things you can use for awards are shells, rocks, fossils, butterflies, insects and indian artifacts. You'd be surprised how easy it is to find many of these things in hobby, shell and rock shops or from some of our laymen.

Types of contests for nature awards or motivation:

1. Count the rings of a varnished cross section of a tree. Camper or Pathfinders who come closest to the number gets an award.
2. Fill a quart jar with rocks, shells, seeds or fossils or an aquarium with pine cones and have campers or Pathfinders try to guess the number in the jar or aquarium.

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3. Have a camouflage box and count the number of items in the box.
4. "Guess What Box" - Have a box with a hole in it which is covered by cloth or leather and have campers or Pathfinders try to guess what is inside.
5. Have campers or Pathfinders guess weight of a rock, stump or animal just by lifting it.
6. Have a table with several books for research and some strange natural item to guess "what". For example - whelk egg case.
7. Alphabet game in Nature Centre or out-of-doors.
8. Nature Bingo.
9. Give awards also to camper or Pathfinders who show the greatest interest in the nature program during the week or year.
10. Sniff boxes.
11. Camper or Pathfinder who can get animal to eat out of his hand.
12. Length of snakes, moose racks, etc.
13. Number of seeds a chipmunk can put into his cheek pockets.
14. Number of times birds take food to young ones in nest during daylight hours.
15. Nature skeleton adventure. How many skeletons of nature items can you find?

Use your line call, campfire or camp council period to make presentations. We never tell the campers the exact number of rings, rocks etc. We only award the ones who come closest and don't reveal their numbers either. Remember, you have other camps to follow and next year comes all too quickly.

Marked Trails - With Natural Items Identified

Types of trails:

1. Trail of the giants.
2. Lake shore trail.
3. Forest garden.

Types of markers:

1. Carved wood painted plaques.
2. Printed cards dipped in high tempered wax mounted on posts beside the natural item.
3. Have numbers by natural items along the trails that you want to have identified. Provide a Nature Trail map for identification.
4. Ground stakes with tabs from labeling gun.

A program like this can make the trail meaningful, very interesting and educational. It can be very valuable to our school and Pathfinder groups that come to camp.

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Proper Equipment

1. Good nets for insects and butterflies.
2. Have a pair of binoculars for each camper or Pathfinder in the bird class.
3. Have a good microscope, projector, overhead projector and screen.
4. Have a telescope for studying stars, etc.
5. Display mounts.
6. Cassette film program library.
7. Charts.

Supplies and Storage

Have plenty of paper, pencils, scissors, booklets, mounting boards, question and answer sheets, glue, rulers, etc., for each camper or Pathfinder. Much time is lost in hunting for these supplies and others if they are not readily available. What happens to campers and Pathfinders while you are trying to locate some of these things? Plan in advance.

Electrical Matching Boards

These can be made for all areas of the natural world. Take Edible Wild Plants - have the names of the plants numbered and running down one side of the board while the pictures of the wild plants are scattered all over the rest of the board. You can have one bulb for the entire board or you can have individual bulbs by each name. When the name of the correct plant is matched with the picture a bulb lights up.

If you have an electrician in your conference or church, see if he will make two or three such electrical boards. These can be made several different ways, but I believe the button method is the best. Wires with special points to touch the two respective points have a tendency to get broken or disappear.

Varied Means of Exploring Other than by Foot.

Add a little spice to the class by having the instructors plan one or two jaunts to a designated area by canoe, row boat, horse and wagon, jeep, pick-up van or bus.

Keep Nature Centre Clean and Attractive

1. Dust Centre often to eliminate moth and larva production.
2. Don't permit moth eaten items to remain in your centre - get fresh materials.
3. Make changes by just re-arranging things already in the centre.
4. Have a handle and touch table or area with some of the following and more:
 - a. Skeleton head of animal.
 - b. Shell or turtle or sea creature
 - c. Large polished rock.
 - d. A bone or fossil bone or wood.
 - e. Elk, moose or deer horns.
 - f. Skin of a furry animal.

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5. Use picture cubes following the same principle as the electrical boards.
6. Use rocks that have a smooth surface on both sides and print on one side "Please Turn Me Over" and on the other side "That Felt So Good" or "Jesus Loves You" or "Now Rock Me Back to Sleep", etc.

Get Campers out in the "Real" Book

Don't permit instructors to just stay in the building and lecture. This is what kills the nature program. In some classes they should be out every day on the trail. A good instructor can do his lecturing while on the trail.

Sabbath afternoon "Take the Bible along on Pathfinder hike". Divide Bible into chapters or books among the Pathfinders and see how many nature texts can be found. Move on to another point and then have them grouped into special areas of nature. This can be fun in a natural setting and more meaningful.

Music in the Centre

If possible have speakers arranged in different areas of your centre and from time to time play bird calls, sounds of the night, etc. Records are available with these different nature sounds. This "music" gives them the feeling that they are right in the atmosphere of nature.

Good Library

Try to have field guides for each class being offered. Here are some good books that you might use in adding a new dimension to your nature program at camp.

1. Acclimatization, A Sensory and Conceptual Approach to Ecological Involvement, by Steve Van Matre: American Camping Association, Bradford Woods, Martinsville, IN 46151.
2. Creative Nature Crafts, by R.D. Bale; Burgess Publishing Co., Minneapolis.
3. Nature Recreation - Group Guidance for the Out-of-Doors, by William Gould Vinal; Dover Publishing, Inc. N.Y.
4. A Field Guide to Australian Birds
5. A Field Guide to Australian Flowers

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POEM "TO DICKIE"

(Reprinted from Better Homes and Gardens magazine)

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 woodthrush 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

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 Des Moines, Iowa.

4. NATURE CRAFT

The instructor should be sure that all necessary materials
 are available for the chosen crafts.

A list of naturecrafts might be duplicated to give the class.

INTRODUCTIONRemove fear of Nature

Many junior youth have a fear of snakes, spiders, and other
 interesting natural life. It is important to introduce the
 youth to something in nature that he is already familiar
 with and has accepted as fun. Activities in which the Path-
 finder can make objects with his hands will often be a good
 way to spark a lasting interest in nature.

Be Alert

While on a hike, driving along through a woodland, walking in a marsh, or touring a desert the alert nature leader will spot things that will capture the imagination of a group of Pathfinders. Looking for "pine puzzles" (pieces of bark that fall at the base of a tree) will often open a new world to the beginner. Dried twigs, seed pods, or branches of autumn leaves make beautiful table arrangements, and thus the Pathfinder discovers that nature is filled with interest and beauty, that it opens a new horizon for his budding imagination. (The instructor might have materials for demonstration).

Use your Creative Art

Nature craft affords a golden opportunity for the adult leader to use his creative ability and to encourage the Pathfinder to express what he feels and thinks as he uses natural materials.

THINGS TO DOPicture frame, Paperweight, or Name Plate

From a tree limb about 75mm in diameter, saw slab 10mm of an inch thick by cutting directly across the limb, or at a severe angle. Sand these slabs, then varnish them to bring out the beauty of the grain. Upon these the Pathfinder can glue pictures or, before varnishing, can burn names or designs into the wood. They can be hung up or placed on a base.

Spider Web Print

Take the Pathfinder group on an early morning walk. Take along some white flour and a few sheets of black construction paper. With the web still wet with dew, sprinkle a bit of the white flour on it. Then place the black paper under it and detach the web. The print can become permanent if the web and paper are sprayed with clear plastic. Another fascinating world of nature awaits your study of spiders.

Mushroom Picture

When on a walk through the damp woodland collect some mature mushrooms. Depending on the colour of the mushrooms, cut the stems off and place the mushrooms, gills down, on either black or white paper. Place a tin can over the mushrooms for 10 to 20 minutes. The mushrooms will drop their spores during this time. Remove the can carefully, take the mushrooms off the paper, and behold the spore pattern. This, too can be permanently preserved by spraying with a clear plastic.

Clay Pottery

Most Pathfinders still like to get their hands into mud. Allow the group to gather some of the grey clay from the bank of a stream, and encourage them to fashion a clay plate, vase, or animal. With sticks and twigs they might even put a design on their "masterpiece."

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Sand Painting

While on a walk along the shore or beach suggest to the junior youth that they do some sand painting. They might just take a stick and sketch a simple design in the sand. Others might develop more complicated and beautiful drawings, using different coloured sand and stones. A supply of pieces of sandpaper can also be taken on a hike. Suggest the boys and girls find stones or pebbles from the stream with which they can scratch a scene on sandpaper. Various coloured pieces of sandstone can add colour and interest to the project.

Casting Animal's Tracks

Always a good way to interest Pathfinders in mammals is to take them on a trip to cast some animal tracks. When good clear tracks are found, sprinkle the track with talcum powder to prevent dirt from adhering to the plaster. Place a piece of cardboard around the track to hold the plaster as a form. Mix a sufficient amount of plaster and pour in the form. Allow the plaster to harden for several hours. When the plaster is taken from the form, the Pathfinder has a perfect reproduction of the animal's track. This might be a start of an exhibit for your club museum.

Plaster Mounts

Make a cardboard form one inch thick. Into this pour mixed plaster of Paris and carefully press in shells, rocks, minerals, or other specimens you may wish to mount. If the mounts are kept the same size, the collection will be much more striking and easier to store or exhibit.

Leaf Printing

This is another way to interest the Pathfinder in the study of trees, shrubs, or other plants. One simple way to make a leaf print is to take a piece of clay (or plaster) and roll it out flat with a rolling pin, then carefully lift the leaf off. The clay can then be cut into the desired shape and size. A paper clip can be placed in the back of the clay and the leaf hung as a wall plaque.

A leaf print can also be made by placing the leaf on a piece of construction paper. With a toothbrush, wire screen, and ink, a print of interest and beauty can be produced. Dip the toothbrush into the ink and rub on the screen, which is held over the leaf lying on the paper. The ink will spray onto the leaf and paper; when the leaf is removed the print of the leaf is left on the paper.

Outdoor Education cont.

NATURE GAMES AND SABBATH PROJECTS

Most junior youth like to play games. The wise nature leader will use this desire to cultivate an interest in nature. For the nature leader with a creative mind there are many different games that can be developed.

The Pathfinder Club nature leader will have many possibilities on the Sabbath to present much to the club members about nature. Many nature games are either suitable for Sabbath or can easily be adapted to a Sabbath setting.

Some feel that nature study is simply the learning of many names. But many successful nature activities and games can be conducted without emphasizing names. Try some of the following:

1. Sight and Sound

How many colours can your group find? How many separate distinct sounds, such as cricket, frog, bird, wind, can they hear?

2. Pitfalls

Find spider webs, doodlebug traps, flytraps (pitcher plant), etc.

3. Disaster

Look for an object struck by lightning, a rock split by a tree, fire damage, partly eaten leaf, bird or plant life damaged by hikers or campers. There are many other possibilities.

4. Discarded Objects

Find skins shed by snakes or insects, bird feathers, or fallen leaves.

5. Transportation

Discover how plants and animals get around. In addition to walking, crawling, flying, some ride in the wind or on "host animals".

6. "Signs of the Times"

Look for signs of the season, such as changes in plants and animals, migration.

7. 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 he asks one to give the answer. Each one 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.

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8. 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 he knows the answer he may stay up front, but if he does not know the answer he goes to the back of the line. The group should not number more than fifteen.

9. From Where I Sit

This game may be planned in a woods or near a garden. The players 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 (names another object)". A player who cannot name the previous player's object becomes a third of a flower. When he becomes a whole flower he is dropped from the game. 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.

10. 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 game. 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:

- (a) 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.
- (b) 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.
- (c) 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.

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11. Nature Treasure Hunt

This game can prove both interesting and informative. A list of specific leaves, insects, and other nature objects is presented to individuals, or small groups if there is a large club. 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 or four hours.

12. Creation Week

This game is played by dividing the players 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.

13. 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 each object, depending upon the difficulty in finding. 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.

6. OBSERVATION TRACK AND TRAIL

All Pathfinder work is based on observation. Whether we are learning to tie the reef knot, learning the compass points, or studying the stars, our speed of learning and understanding will be controlled by our powers of observation. The only way to develop observation is by practise at every opportunity.

Observation does not refer to the use of your visual powers only, but to all the other senses as well. How can we develop the powers of observation? Practise. Here are a few ideas.

Outdoor Education cont.

Kim's Game

(Observation Test - Eyes)

Sight

There are various ways to play this. Have 24 articles (nail, pencil, razor blade, needle, button, badge, chalk etc.) covered by a cloth. Bring up two units at a time, allow them to study the articles for one minute. They must NOT touch the articles or make any notes. Cover the articles and send each off to write down the name of each article and DESCRIBE (most important) to them, e.g. piece of blue chalk approx. 2 cms long, red button 1 cm in diameter, nail 4 cms long.

This game can also be played by:-

Sound

(Ears) Units - back to table - different noises are made, cork out of a bottle, strike match etc. Ask for full description e.g. match box opened, match lit, blown out, match box closed etc.

Smell

(Nose) Various bags, bottles, or boxes containing different types of whiffs, pongs, stinks, smell, e.g. spices, sodas, vegetables, disinfectants, etc.

Taste

(Tongue) As above with each member supplied with six tooth picks, allowed to take a taste, e.g. water salt, sugar, castor oil, cloves etc.

Feel

(Hands) At night - a string across the room with various articles attached, members feel along the string, try to identify article and so on. Members could be blindfolded.

Track & Trail

This is a test of the powers of observation and deduction. It is a way of finding out just how much you are getting over to your Pathfinders. If they all come home, impossible! If only half come home, then you are above average, and should be quite pleased with the amount of knowledge you are getting over to your group.

Trails come in various sizes and shapes. From the arrow trail to the complicated story trail, each has its use and can be used quite effectively by the Pathfinder Leader.

The three varieties are: The simple arrow trail, (not of the bow and arrow variety); the story trail, and the track 'n' trail (this is the one where everybody gets gloriously lost.)

Outdoor Education cont.

Let's look at the simple arrow trail. All it consists of is a series of arrows, scratched in the ground, made with sticks or stones or drawn with chalk and leading from here to there.

This unfortunately is usually what the arrow trail is, and is the reason why young Billy nearly got flattened by a lorry by being on the wrong side of the road, or young Jenny fell in the creek, etc., or the Owls never came home.

With every trail there are several common-sense rules to observe.

First, observe all traffic rules. If no footpath, you can use the concrete kerbing if one is available. Don't make signs on the middle of the footpath or on the road - these can so easily be knocked slightly out of alignment and away go the Otters on a "marathon." If you wish, lay the trail at eye level from gate to gate, tree to tree, etc. (They will never see it). NEVER damage or disfigure property. In daylight, signs can be up to 50 yards apart - at night 10-20 yards is far enough. Be exceptionally careful when laying the trail, making sure that the arrow is pointing exactly in the direction you are going. Remember that a right-handed person goes right and a left-handed person goes left, so better walk them hand in hand and you will be O.K.

Should you lose the trail, return to the last sign you found and try again. Remember all changes of direction should be prominently marked or "good-by Owls."

Once you are familiar with the arrow system you can try the story trail. This is where you use such signs as, "Don't go this way", "Wait here", "Party broken up", "This way to water", "Gone home", etc.

Following signs:

1. DON'T GO THIS WAY OR BAD
2. TURN RIGHT
3. TURN LEFT
4. WAIT HERE (figure in centre denotes mins e.g. 10)
5. GONE HOME
6. UNIT BROKEN UP - TWO GOING ONE WAY, THREE ANOTHER
7. CAMP THIS WAY
8. WATER THIS WAY (X in front of water sign denotes bad water)
9. HIDDEN MESSAGE

Of the foregoing, the "Hidden Message" is the only one that could cause some trouble. This is usually because of inexperience in using this sign.

First find a suitable place to hide your message - hole in the tree, under bark, under stone, etc. Now count the number of normal walking paces from where the sign is hidden back onto trail. Draw your sign exactly over your heel mark and be very careful to see that the arrow is pointing exactly the right way. Now check the number of paces by placing your heel in the message box and walk to the message. If number of paces agree, print the number in the square of your sign.

Outdoor Education cont.

Tracking Trail

Usually made by leaving something unnatural behind; bits of paper, rag, wool tied to tree limbs, etc., or a peculiar mark on ground. For the latter you need a piece of log, one metre (3 feet) long and say 8 - 12 cms. (3" - 4") in diameter. About 16 cms (6") from one end drive in a number of 8 cm (3") nails, tie a piece of rope to the other end and off you toddle. This will leave quite a trail to follow for a while, then off they go following a hedge-hog or something and you get lost from looking back all the time to see what sort of mark you are leaving.

Of course, observation doesn't stop here.

You could dig up a "Track and Trail" garden bed in your grounds and set some interesting problems in deduction. For example - limping, walking, running, carrying a load. Two people meeting, one getting hit on head and being dragged or carried off. You could use your most annoying Pathfinder for this one and you could really

On the Track

When on the track, there are several basic rules which, carried out, make for a safer outing. These will be eventually learnt from experience. E.g, having one's nose "spread" over one's face from the 'backwash' when walking through scrub, soon teaches you to walk in single file nine to ten paces apart or to walk very close to one another.

If, however, you have a few clues before starting, you have a more reasonable chance of getting back to where you started.

Having learnt about "backwash" the hard way, here are a few thoughts to remember:

1. If it is necessary to wade, use a long pole pointing downstream to feel for depth and to also help you maintain balance.
2. If you have a companion, join hands, this will give each member a bit of mutual support. (Also if you do fall in, you will always have company).
3. If necessary to swim a creek, choose a deep, wide clear pool well above any rough water with sloping banks on either side. Wrap your pack securely in your groundsheet and with it as support, off you go.

Swim with the current, but aim at a spot on the opposite bank.

Remember if you do get lost, or become overdue, you may cause many people risk and trouble in searching for you

Outdoor Education cont.

7. NATURE GAMES

Leaf Snatch - Divide the players into two teams and line the teams up facing each other twenty feet apart. Number the players on each team, starting with "number one" for each side. In the centre of the open area, place as many different leaves as there are players on a team. The leader stands to one side and calls out a tree and number. The two players who have that number run to the centre and try to find the leaf. The one who snatches it first, and gets back to his line without being tagged, keeps the leaf. The team that snatches the most leaves wins.

Match-It - Cut leaves or twigs (not both for the same game) into three or four pieces. Shuffle the parts in a bag and let each player have a piece. At a given signal, players try to find the rest of their leaf or twig. The first group to do so wins.

Silhouettes - Cut out silhouettes of common trees on heavy paper. The leader holds up a silhouette and the player who can identify it gets it for his team. When all the pictures have been identified, the team with the most wins.

Touch - This game must be played where there are many trees of a number of different varieties. The leader calls the name of a tree and the last player to tag that kind of tree is the loser.

Tree Baseball - Players are divided into two teams. The four corners of a room, or other suitable places, are designated as the three bases and home plate. The leader is the pitcher. When the first player comes "up to bat" the leader asks a question about trees. If the player answers it correctly, he goes to first base, and if he misses he is out. The pitcher then asks the player if he wishes to try for a two-base hit. If he does, he must attempt to answer a second question. Otherwise he remains on first base and the second batter is up. If the second batter answers his question correctly, he moves to first base, advancing the first player to second base. Three outs retire a side and the team with the most runs at the end of a given number of innings wins.

Leaf Scavenger Hunt - Give each team a list of trees. The team that brings in a leaf from each of its trees first wins.

Find Me - Five to twenty-five junior age and up may play this game. Each person in the group should be given a list of things he would likely see during a hike. Value points may be given each object depending upon the difficulty in finding. Participants may compete individually or groups of 4 or 5 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.

Outdoor Education cont.

Nature Hunting - Participants may number 15 to 60 with ages ranging from junior 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 4 or 5 and send each group on a hunting trip to a definite point. 15 or 20 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 of this hunting trip should be one who is familiar with the interesting objects in the area. It may become necessary for him to explain some of the unusual things seen.

Who Am I? - Ten or more from the junior age up may participate in this game. Pin a picture of an animal or a plant on the back of each participant without his knowing what the picture is. It is by asking other people questions these participants attempt to identify themselves. The game may also be played with partner, double pictures being pinned on a boy and a girl. In this case they must not only find out who they are but find their partner.

Tree Tag - Four to twenty players, teen-age and under. One person is designated 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 young people learn to identify the trees quite rapidly.

Prove It - A group from five to fifty, ages 10 up may play this game. After the group has been seated in a circle, one of the participants says "I can see a black oak" (or any other natural object that may be seen from where he sits). Should any one in the group question his seeing a black oak, he may be challenged and forced to PROVE it. If he cannot, he must drop out of the game, but if he proves it the one challenging him must drop out. No one object may be named more than once during the course of the game. The game continues by rotating around the circle until all but one has been eliminated.

SCAVENGER HUNT IN NATURE

Observe and check:

Crayfish hole	Hornet's nest	Woodpecker
Slug tracks	Mole tunnel	Snake
Fish	Wasp nest	Bee getting home
Dragon fly	Spider web	Hawk in flight
Squirrel	Ant hill	Song of some bird
Cumulus cloud	Waterfall	Call of a cricket

Collect and check:

Snail shell	Plant rust	Compound leaf
Lichen	Quartz pebble	Edible wild fruit
Moss	Limestone	Trumpet shaped flower
Fungus	Granite	Bit of pine bark
Bulb	Fossil	Two kinds ferns
Pollen	Hollow stem	Discarded insect

Outdoor Education cont.

8. NATURE QUIZBiblical Zoo

In the following quotations from the Bible, names of specimens of animal life have been omitted. Can you supply the right ones? Score 5 for each correct answer. 75 is fair, 90 or above, excellent.

1. "Let arobbed of her whelps meet a man, rather than a fool in his folly" (Prov. 17:12).
2. "A living dog is better than a dead"(Eccl. 9:4).
3. "Beware of false prophets, which come to you in sheep's clothing, but inwardly are ravening.....(Matt. 7:15)
4. "The.....have holes, and the birds of the air have nests" (Matt. 8:20).
5. "And she came to Jerusalem with a very great train,withthat bare spices, and very much gold, and precious stones" (1 Kings 10:2)
6. "Asahel was as light of foot as a wild"(2 Sam.2:18)
7. "Once in three years came the navy of Tharshish, bringing gold, and silver, ivory, and,and peacocks" (1 Kings 10:22)
8. "The high hills are a refuge for the wild"(Ps. 104:18)
9. "The.....are but a feeble folk, yet make they their houses in the rocks" (Prov. 30:26)
10. "Theshall lie down with the kid" (Isa.11:6).
11. "And the sucking child shall play on the hole of the"(Isa.11:8)
12. "And when Paul had gathered a bundle of sticks, and laid them on the fire, there came aout of the heat, and fastened on his hand" (Acts 28:3).
13. "Barley also and straw for the horses and.....brought they unto the place where the officers were, every man according to his charge" (1 Kings 4:28).
14. "As for the,the fir trees are her house" (Ps.104:17)
15. "There shall the greatmake her nest, and lay, and hatch, and gather under her shadow" (Isa. 34.15)
16. "There shall the.....also be gathered, every one with her mate" (Isa. 34:15)
17. "I am like aof the wilderness" (Ps. 102:6)
18. "Gavest thou the goodly wings unto the(Job 39:13)
19. "At the last it biteth like a serpent, and stingeth like an(Prov. 23:32).
20. "And thebrought him bread and flesh in the morning, and bread and flesh in the evening; and he drank of the brook" (1 Kings 17:6).

Outdoor Education cont.

Names of Jesus

1. "I am theof.....and the.....of the valleys" (S.of Sol. 2:1)
2. "The next day John seeth Jesus coming unto him, and saith, Behold the.....of.....,which taketh away the sin of the world" (John 1:29)
3. "One of the elders saith unto me, Weep not: behold, theof the tribe of Juda,.....hath prevailed to open the book" (Rev. 5:5)
4. "I am the....., ye are the branches" (John 15:5)
5. "There shall come forth a.....out of the stem of Jesse, and a.....shall grow out of his roots" (Isa. 11:1)
6. "In that day there shall be aof Jesse,which shall stand for an ensign of the people" (Isa.11:10).
7. "I am the.....and the offspring of David" (Rev. 22:16)
8. "I am.....the bright and....." (Rev. 22:16)
9. "For the Lord God is aand shield" (Ps. 84:11)

Association

Identify the person or incident associated with each of the following:

1. A crown of thorns.
2. A rooster.
3. A bush not burned.
4. A dog licking blood in the street.
5. Locust and wild honey.
6. A raven and a dove.
7. A firebrand between two tails.
8. A fleece wet with dew.
9. A beast rising from the sea.
10. A colt tied.
11. Bees and honey in a dead lion.
12. A worm-eaten gourd.

9. NATURE "BRINGO"

NAME _____ DATE _____

BIRD FEATHER	ANIMAL DROPPING	LICHEN	BLACK ROCK	MUSHROOM
WILD NUT	BEETLE	OAK LEAF	FERN	ANIMAL BONE
MICA	THISTLE BUD OR HEAD	F R E E	ANT	DADDY LONG LEGS SPIDER
PINE CONE	FUNGUS	FOSSILIZED STONE	WHITE WORM	MOSQUITO
MOTH	BIRDS NEST	PINE NEEDLE	EDIBLE BERRY	INSECT CASE OR NEST

- * Everything must be collected in the area around the camp by the one playing the BRINGO game.
- * Nothing is to be taken as an object of the game that will destroy or detract from the natural beauty of the area.

HAVE YOUR FUN BUT PLEASE DO NOT DESTROY ANY NATURAL BEAUTY

Check off on your list each item as it is seen. One point awarded per item that you see or hear or collect. All persons in the group should see each item checked off. Collect in bag items starred, and any other unusual thing that you may see.

- | | | |
|------------------------|----------------------------|------------------|
| 1. Frog | 8. A four footed animal | 15. Pine cone* |
| 2. Fish | 9. A parallel veined leaf* | 16. Acorn* |
| 3. Snake or snake skin | 10. Winged seed* | 17. Moss* |
| 4. Butterfly | 11. Bird feather* | 18. Red leaf* |
| 5. Bird nest | 12. Granite rock* | 19. Brown leaf* |
| 6. Grape vine | 13. Other kinds of rocks* | 20. Yellow leaf* |
| 7. Spider web | 14. Animal tracks | 21. Mushroom* |

1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
13.	_____	_____	_____	_____
14.	_____	_____	_____	_____
15.	_____	_____	_____	_____
16.	_____	_____	_____	_____
17.	_____	_____	_____	_____
18.	_____	_____	_____	_____
19.	_____	_____	_____	_____
20.	_____	_____	_____	_____

For 10 minutes during the hike be absolutely silent and write down all the sounds that you hear. You may whisper to the leader only to help you identify a sound.

D. MAP AND COMPASS TECHNIQUES (60 min)

In this section we are dealing with the fundamental techniques of map reading, the use of a compass and navigation in the bush.

The information is set out under three headings:

1. Tips on how to read a map.
2. Direction finding.
3. Navigation in the bush.

BIBLIOGRAPHY

1. Stay Alive - Maurice Dunlevy
2. Australian Wilderness Skills - Robert Rankin

1. TIPS ON HOW TO READ A MAPTo Find a Grid Reference for a Place:

Take the West edge of the square which contains the place and read the leard figures opposite this line on the map margin or on the map itself. These are the first two figures of your reference, e.g. on Chaelundi 1:25000, Chaelundi square whose West edge is 37. Then estimate how many tenths of the square Eastward is the required place. Chaelundi is 6 tenths. This becomes the third number of the reference e.g. 376.

Now take the South edge of the square in which the place lies and read the large figures opposite this line on the map margin or face. These are the next two figures of your reference, e.g. for Chaelundi the South edge of the square is 73. Then estimate the tenths Northward to the place. Te Mata is 9 tenths. This is the last figure.

The complete reference has these six figures, e.g. for Chaelundi 376739. Remember the rule: Eastings first then Northings.

Since each square is 1,000 metres, you can give a reference to the nearest 100 metres.

By reversing this method you can find a map position given the Grid reference.

To Orient a Map by Landmark:

Lay your map so that any long features on the map (road, ridge, river) lie parallel to the actual features as you see it. Ensure that the ends correspond and are not reversed.

Point features (hills, buildings) can be used, by turning the map so that a line drawn from your present position on the map, through the map features points to the real features.

When the map is properly oriented, both the above conditions are true for ALL visible landmarks.

If the map is properly oriented from a rough knowledge of your position, you can calculate your exact position by drawing lines from the real features through your map position. The cross point of these lines is your position.

To Orient a map by Compass

Place the compass on the map with the forward end pointing to map N, and one long edge along a NS grid line.

Turn the arrow to the magnetic correction. In this area Mag N is 10°E , so the bearing ring reads 350° on the bearing line.

Turn the whole map, with the compass resting on it until the N seeking (red) end of the needle lies over the arrow.

The map is now oriented by compass. Your position can be found by comparing landmarks with the map, and using intersecting bearing lines drawn on the map as in 2.

To Take a Bearing from a Map

Place the compass on the map with a long edge joining or on the line joining, the place the bearing is taken FROM and the place the bearing is taken TO. The rear end of the compass must be closest to the "from" point and the leading end closes to the "to" point.

Turn the arrow to map N. Ignore the needle. You do not have to orient the map.

Read the bearing on the bearing ring against the bearing line.

This is a TRUE BEARING.

To Convert Magnetic (Land) Bearing to true (Map) Bearing

ADD the magnetic correction, in this area 10°

To Convert True (Map) Bearing to Magnetic (Land) Bearing

Subtract the magnetic correction, in this area 10°

Recognise the symbols used

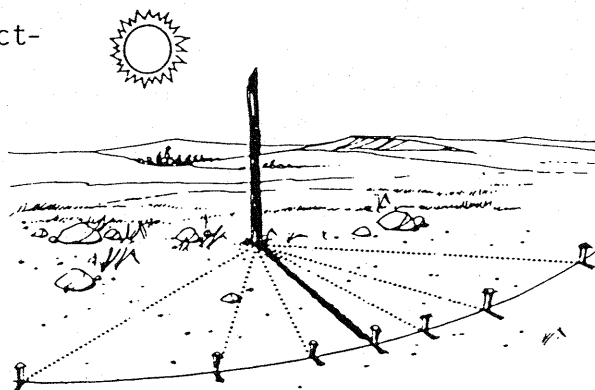
Contour lines, marked with feet above sea level. The closer they are, the steeper the country. When your route crosses contour lines you are changing level. Since they are drawn at 10 M vertical intervals, a 9.9 M rise or hollow may not show.

You should also be able to recognise symbols for:

railway, road, bridge, powerline, bushline, tree, stream, swamp, trig station, spot elevation, cliff, slip, fence building, church, post office.

2. DIRECTION FINDING

You can also find direction from your stick and shadow. The line of the shortest shadow will be the line of the local north-south line (meridian). Whether the sun is north or south of you at mid-day will depend on your latitude. North of 23.4°N , the sun will always be due south at local noon and the shadow will point north.



Finding direction from stick and shadow

South of 23.4°S , the sun will always be due north at local noon and the shadow will point south. In the tropics the sun can be either north or south at noon, depending on the date and your position. To put it in Australian terms, at noon in winter in the Southern Hemisphere the sun will be due north and the shadows will point south. This will not always apply in summer in the area north of Capricorn. For example, at noon in Cape York, Darwin and northern areas of Western Australia the sun will throw short shadows to the north, particularly during December. Remember to convert the time to true noon if it is summer and your watch is set for summer (daylight saving) time.

Since this book was first published Mr. Norman Thompson of Brisbane has pointed out that if the stick is positioned on flat ground the track of the shadow of the tip of the stick may appear to be a straight line having a bearing of true east and west. Local noon occurs when the shadow of the vertical stick makes a right angle with the east-west line. Measuring the shortest shadow is tedious and may be inaccurate, but observing a right angle is easy, accurate and can be done before noon. This makes the determination of noon more accurate.

The stars are also useful for finding direction. In the Southern Hemisphere the Southern Cross is the most distinctive constellation and an imaginary line through the long axis of the Cross points towards the South Pole. It is important not to confuse the true Southern Cross with the False Crosses. The False Crosses are less bright and their stars are more widely spaced. The True Cross has pointers and two of the stars in the True Cross - those on the southern and eastern arms - are among the brightest in the heavens.

The sky above the South Pole is known as the Coal Sack as it is very dark compared with the rest of the sky. You can locate the spot within the Coal Sack which is exactly above the South Pole by holding the illustration of the True Cross and False Cross above your head. Note the two very bright stars just to the east of the True Cross. First, extend

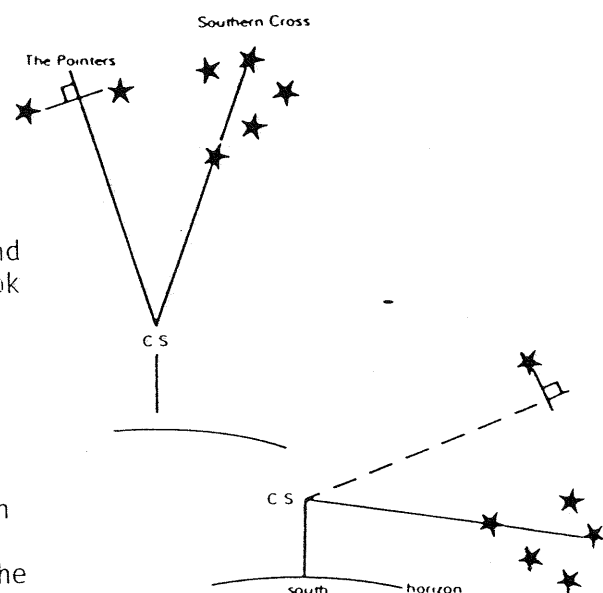
Outdoor Education cont.

an imaginary line along the axis of the True Cross to the south. Join the two bright stars to the east of the Cross with an imaginary line. Bisect this line with one at right angles. The intersection of this line with the line through the Cross is roughly the point above the South Pole.

You can use your sun and star directions as a check on your compass. Sight on, say, the sun and note its magnetic azimuth. The difference between this magnetic azimuth and the true azimuth will be the magnetic variation at your position. Note this variation and check it with the variation given on your map. For example, the magnetic azimuth of the sun at midday is 190° . The true azimuth is 180° . Subtract 180° from 190° and you get 10° . The variation is 10°W . Subtract 10° from your magnetic azimuth to get true azimuth. If the difference is less than 3° , check again before changing your map. If even a small difference is constant, adjust your map to correspond with your observations, but first make sure that no iron or electrical fields are close to your compass while using it. If there is iron in the rocks around you, you will notice a change in your compass reading if you vary the distance from compass to rock.

A good map and compass are the most useful tools in direction finding because they are generally more accurate than human judgment, but observation is almost as important - experienced bushmen would say more important.

The Hobart Walking Club offers two pieces of advice to its members: remember the short view and don't forget the long view. As you move note such physical features near you as ridges, creek valleys and rock outcrops and keep looking behind you because the route back won't look the same as the route out. As H.A. Lindsay puts it in *The Bushman's Handbook* - 'Now get this fact firmly in your mind: the sides of trees, rocks, hills and the scenes which you will see on the outward journey are not what you will see on the way back.' Things often look vastly different when viewed from the other side, so make it a habit to look behind you every few hundred yards. Memorise what you see, and then on the way back everything will seem familiar because it has been seen before'. And when you look ahead and behind don't look only at the area close to you. Note distant landmarks. Try to fix in your mind the general trend of your route over long distances. In dense forest, of course, you may have no distant views and you might be reduced to following a course by lining up three trees. Blazing trees, bending bushes and overturning rocks or logs may help to create landmarks in country such as this where landmarks are few.



Finding celestial south (CS) and true south at night, with the Southern Cross and Pointers in different positions in the southern sky.

As you travel keep a sketch map showing where you've been and what you've seen. Mark in the distances you've travelled and the direction you've followed. Then if you have to retrace your steps you have a record of them.

Try to follow a direct route, but don't waste your strength trying to surmount major obstacles if you can walk around them in a reasonable time. Don't labour straight up a steep slope. Zigzag up it to save energy. Skirt gullies and swamps if possible. Don't force the pace. Walk steadily and rest often. When resting face the direction of travel, or make a pointer which does. Let the pace of the slowest member be the pace of the party, otherwise you will become separated.

Use your eyes and ears. Look for human trails, animal trails and signs of human habitation. Listen for the sound of rivers and surf. Use your nose to detect the smell of the sea or the smell of smoke.

If you can't use your eyes and ears and you can find reasonable shelter, stop. Don't try to battle on blindly through storm or fog. Camp and wait for visibility to improve. If there is no storm or fog, remember that every day there will be darkness. Make camp before it gets dark. Don't forget to indicate the direction of travel each time you stop.

If you have to travel at night, steer by the stars and whatever landmarks you can see, but this is inadvisable except in emergencies. Night travel is easier if you have a compass, but it is rarely really easy. Remember that you can get a rough indication of the location of the south celestial pole by extending in an imaginary line the distance between the star at the head and the one at the foot of the Southern Cross three and a half times. H.A. Lindsay warns that the surest way to get lost at night is to carry a lantern before you. You tend to lose yourself in a circle of light. In the daylight you are likely to lose yourself, unless you are following landmarks, because of the natural tendency of human beings to walk in circles.

If you do get lost, stop. Don't panic. Sit down and think. Examine your map if you have one. Can you recognise any landmarks? What was the last one you saw? Get out your sketch map. Compare the two. Is the map in error? If not, ask yourself whether you have drifted to right or left, or whether you have passed your objective. Did you walk around an obstacle and fail to take account of it? Do you have a record of the time or distance you have travelled? Try to reconstruct the course you have taken since you left the last known point. Climb a hill or tall tree and look around.

If you are really lost, stay where you are. Try to make yourself and your camp easily visible. Brightly coloured garments, space blanket, groundsheet or plastic may help, so may signals in the sand, if there is sand. Light a fire and keep it smoking. Be prepared to signal to rescuers. Remember that if there is a search for you, it may be conducted by ground and air. Conserve your water, your food and your energy. Don't blunder about. See Appendix III for illustrations of search and rescue signals to be used.

If you decide to walk out, leave a dated note at each camp and leave plenty of evidence that you've been there. Indicate where you are going next and outline the physical condition of members of your party.

If you are in the desert, don't travel unless you are certain you can reach your destination or another water supply. If you have to jettison equipment, don't jettison water or anything that may be used as a sunshade. Water is more important than food. If the days are hot, remain in the shade and travel only at night.

Wherever you are, try to find a trail and follow it. At forks take the trail that looks the most travelled. Don't blunder through difficult obstacles. Don't climb over logs if you can walk around them. Don't crash through vegetation; push it aside. Follow the easiest route possible. Above all, don't panic. Always report your return. There may be people still looking for you. If you registered details of your party and trip with the police before leaving, be sure to report to police on your return. 40

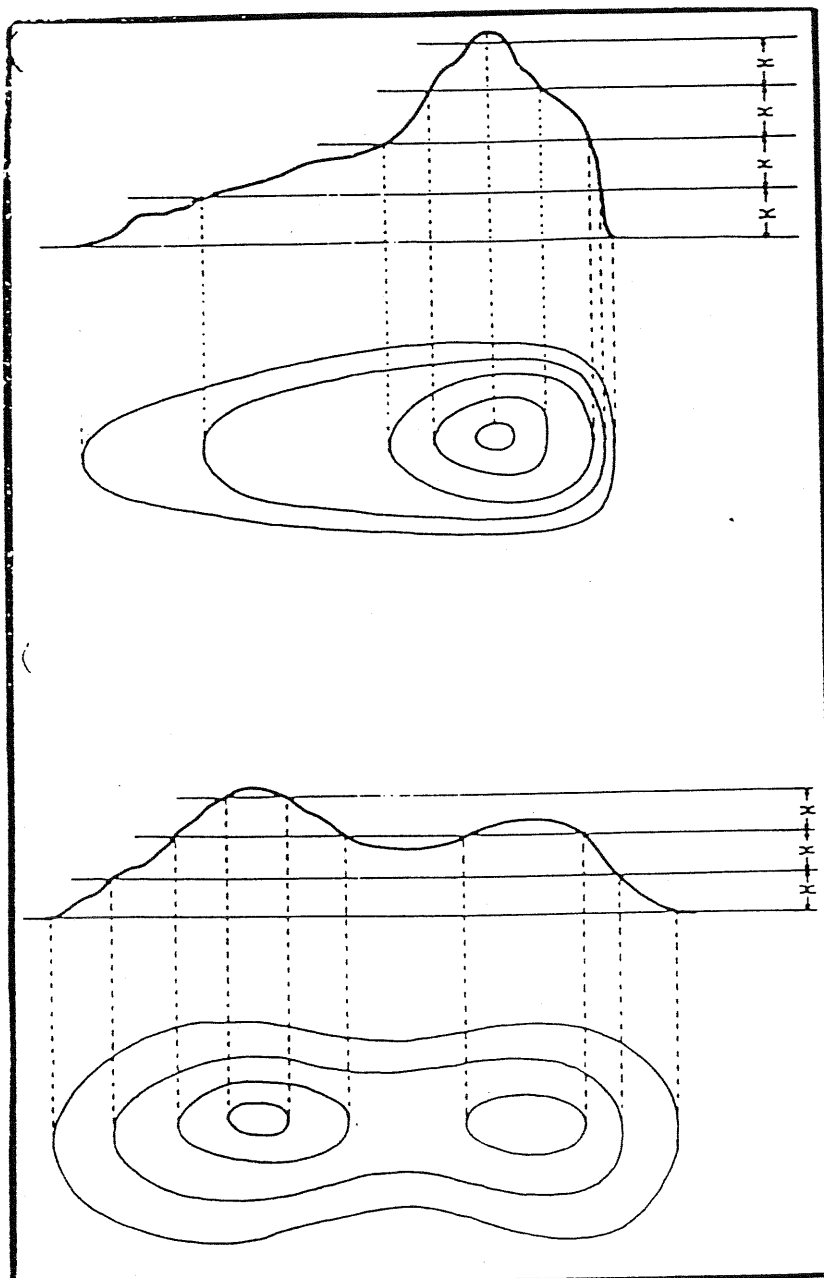
3. NAVIGATION IN THE BUSH

Navigation is an important skill but one that few walkers learn well. Many people assume that there will always be someone in the walking party who can navigate, and so they never learn themselves, but one day you may find yourself in a group whose combined navigational talents are still not enough to prevent you all becoming lost. Then, you will wish you knew more! If you do acquire competent navigation skills, your trips will become much safer, and you will execute them more efficiently, which in turn will make the wilderness experience just that bit more pleasant and satisfying.

The techniques for finding the way today are not those of the early explorers who often found themselves in totally unknown and even uncharted lands. Navigation today is quite a simple thing - it's a matter of keeping track of where you are, how fast you are travelling, and what land marks you are passing. Above all it's a matter of awareness of your surroundings. It is a fact that people do get lost, often in the most populated and simple terrain, but to avoid this and to keep orientated on your planned course, commonsense, observation, and concentration are all that is called for.

There is, of course, another use for navigational skills. Not only do they prevent you becoming lost, but they can also be used to identify surrounding landmarks. Following your planned course may be easy. It may simply be a graded track calling for minimal navigational skills. The map and compass can still be used, however, to identify unknown peaks and other landforms as you pass them.

Outdoor Education cont.



Landscape to Map Translation
The contour interval is x.

Essential Equipment

There are only two pieces of equipment necessary for navigation - a map of the location and a compass. Both weigh very little so there is no excuse not to carry them on all trips, no matter how easy you think the navigational problems will be. The most suitable compass is the Silva type. It is tough, lightweight, simple to operate, and combines compass, protractor, and short ruler. There is a range of styles to choose from with features including magnifying glass and

variable map-scale attachment. In most circumstances, it is not necessary to use the more expensive prismatic compass which is designed with very accurate bearing measurements in mind.

As for the type of map, it is preferable to use a topographic or contour type with the largest scale possible that still covers the area you intend to travel through. For national parks, it is often possible to obtain a specially prepared contour map of the park with many additional features, such as tracks, added. Scales vary, but 1:250,000, 1:100,000, or 1:50,000 are fairly common. Of these, only the 1:50,000 scale is useful for bushwalking, the other scales lacking the required detail. For popular areas, a 1:25,000 scale map is often published.

Basic Map Interpretation

The basic map skill to acquire is the ability to visualize, or interpret, from the map, a picture of what the landscape around you looks like. This is a quite complex mental skill and involves translating a plan or aerial-view map into a view from where you are standing at ground level. Conversely, you need to be able to mentally translate the landscape you see around you into a plan view map. By using both these skills simultaneously you can locate your whereabouts on a map, but proficiency at doing this only comes with practice, and the easiest way to start is to buy a map of an area with which you are familiar.

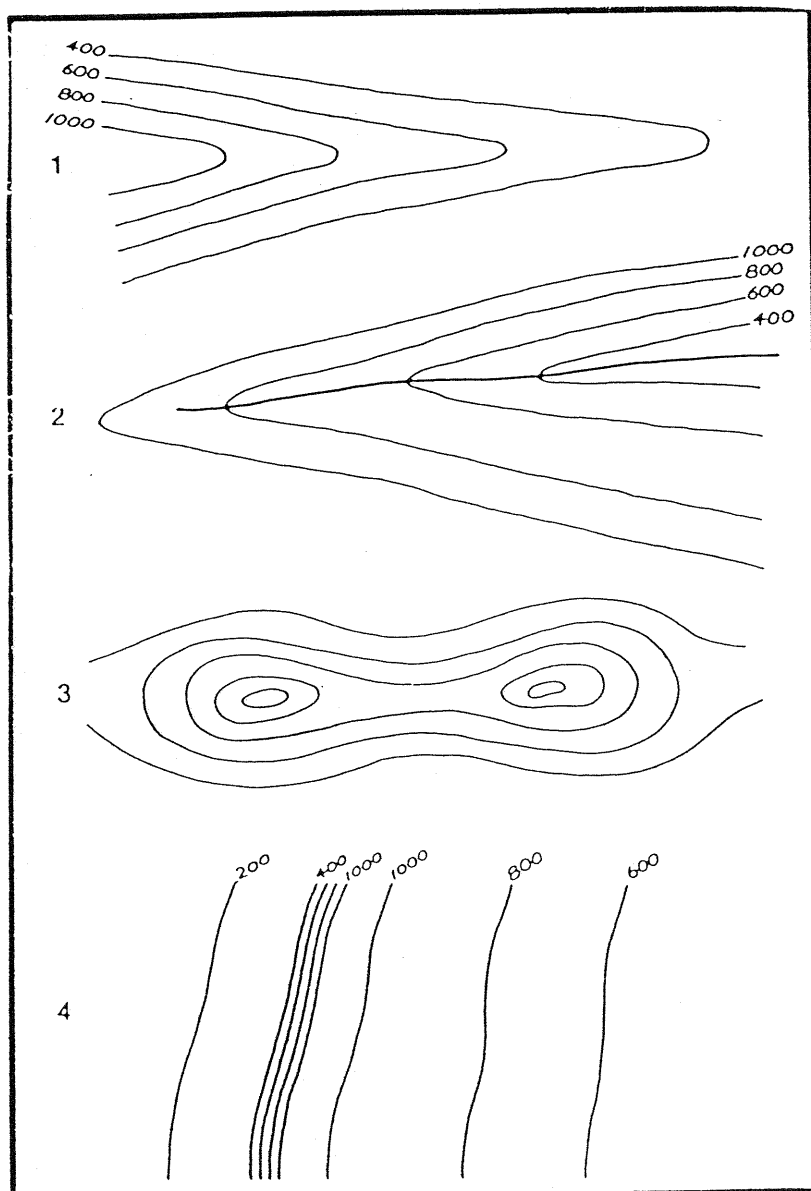
By carefully studying this map you will soon learn how physical features are translated into map language. With practice you will know, almost without thinking, what a particular feature looks like drawn with contour lines. You will come to recognise the special shape of features on a map and instantly know what they represent. Once you have mastered this feature identification, it is often quite useful to sit down and study the map of an intended trip with a broad overview - to interpret the 'lay of the land'.

Wilderness landscapes have been formed by the processes of nature. These processes are consistent, and so the landscape they carve out is predictable and systematic, and will have a definite pattern to it. In Australia, erosion by running water is the most powerful landscape producing process, so keeping this in mind will help you understand the terrain and make route-planning decisions easier.

Through erosion, the land has been carved into many drainage basins, separated by ridgetops known as watersheds or divides because they separate rainfall, sending it either one way or another. Australia's Great Dividing Range is so called because it divides those streams flowing east to the Pacific from those flowing west to finally empty into the Southern Ocean, one of many salt lakes, or the Gulf of Carpentaria. On a smaller scale, realising a ridgetop is the divide between two streams can help decide the choice of route. By identifying the drainage basins, you will at the same time be able to predict where you will end up should you follow a

particular water-course. If your route crosses several catchments, it is helpful to bear in mind which catchment you are in and what general direction the streams are flowing.

As an example, imagine trying to find a particular landmark or feature which, you know from the map, lies in a particular catchment. If you are to find this feature, then it makes a lot of sense to search in the correct catchment and not cross any watershed into another. By keeping an overview of the terrain always in mind, while still studying the finer detail when necessary, it is quite difficult to become lost.



The Contour Appearance of
Some Geographical Features

1. A ridge 2. A valley 3. Two peaks joined by a saddle 4. A steep cliff, ridge top, and gently sloping ground.

Using the Compass

One function of the compass is to help you orientate the map, and when this is done, the landscape features on the map should be in the same relative direction from where you are standing, as the real features are.

The main features are the needle, the parallel lines under the needle, and the numbered degrees. The red end of the needle always points to the Magnetic North Pole unless there is some ferro-magnetic material, for example iron or steel, close by. Make sure you use the compass well away from car bodies, steel pack frames and other iron objects.

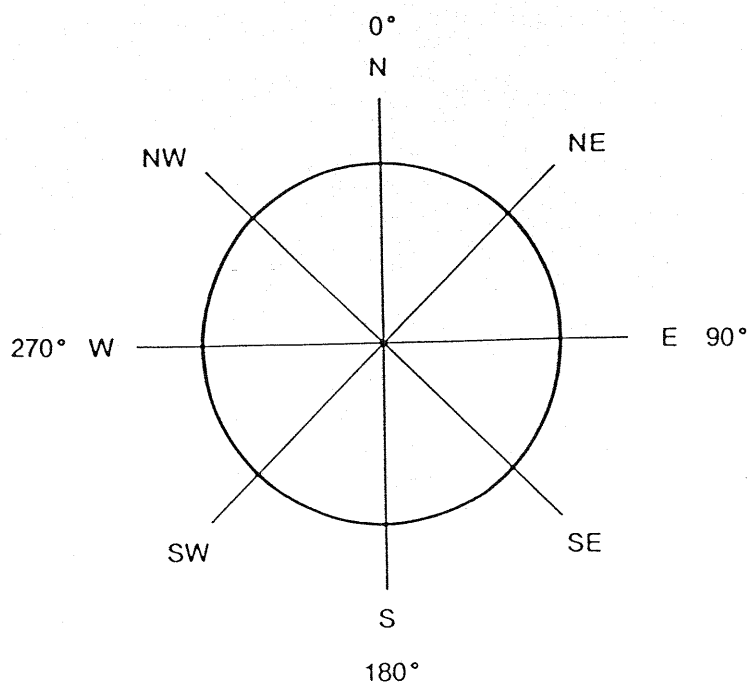
To use the degrees of angle marked around the compass, visualise a circle of directions surrounding you where you stand. This circle is traditionally broken up into 360 divisions or degrees, zero degrees of direction being defined as north. In a clockwise direction then, 90 degrees is east, 180 degrees is south, 270 degrees is west, and 360 degrees is back to north again. In between, 45 degrees signifies north-east and so on. Using these numbers then, it is easy to describe a direction of a feature from a point of view, and so in descriptions of views from particular lookouts, the positions of landmarks are sometimes given by their angular direction.

To find the direction of north, merely hold the compass flat in your hand and allow the needle to settle on the Magnetic North Pole - somewhere near the true North Pole, but not quite. In the corner of the map you are using there will be a group of direction arrows. These may be stated as GN (grid north), TN (true geographical north), and MN (magnetic north). Grid north is simply the north adopted for a particular map's grid pattern. To orientate the map, place the compass over the magnetic north arrow and rotate the map until the needle coincides with the direction of this arrow.

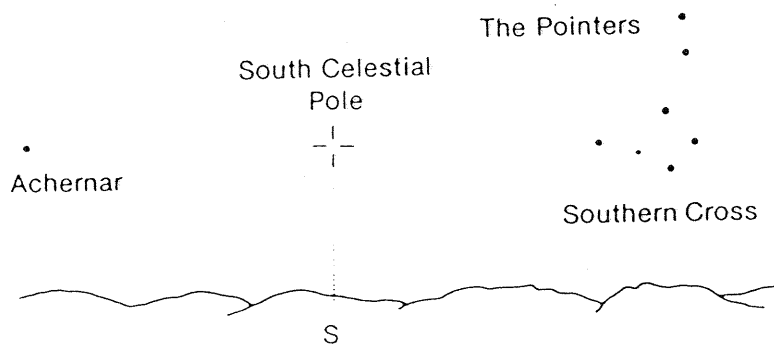
To improve this procedure, and so allow you to place the compass anywhere on the map (useful when it is folded up), it's a good idea to draw several magnetic north grid lines across the map, parallel to the magnetic north arrow, before you leave home. Then when you are in the field, place the parallel lines of the rotating compass dial parallel to your drawn lines on the map. Hold the compass firm on the map, and rotate the combination together until the needle also lies parallel to the lines. The map is now orientated. Put arrows on your drawn lines to indicate north. If you don't, it is very easy to mix up north and south directions!

An alternative approach is to use the grid north lines already on many maps. Align the compass with these and rotate the combination of map and compass as before, so that the needle also is aligned. Finally make a correction by further rotating the map by the angle between GN and MN which is stated on the map. For eastern Australia this will mean rotating the map anticlockwise until the needle traces out an arc equal to this angle. In the west of Western Australia, rotate the map clockwise.

Outdoor Education cont.



The Conventional Compass Directions



Finding the South Pole by the Stars

Perhaps the best method is the first one described, as it demands less field calculations, and that is important. In difficult situations, too many calculations can lead to error. The Silva compass can be used in many ways - I have described only two variations of one basic approach. The instructions packed with it explain more, although the methods I have described will usually see you through most navigational predicaments. They are both quick to use and easy to remember.

If you wish to move quickly, navigation 'on the needle' is a fast and effective method which avoids stopping to align the map each time you wish to identify your location. It is less precise, but if you keep a continual watch on the terrain you are passing through and relate it to the map, then navigating on the needle is all that is necessary. Merely note the angular direction you wish to travel according to the map, hold the compass out in front of you, and find this direction in relation to the northward pointing needle.

For instance, according to the map you need to travel in a NE direction with respect to magnetic north, to reach your destination. Observe the compass needle pointing north and so merely travel at 45 degrees to the right of this. Your basic direction calculated, you can achieve accurate navigation by checking off the map features as you pass them. Often a prominent feature (rock outcrop, large tree) will lie on the intended course. If so, proceed to it and plot the next leg from that feature.

Compass work can be very precise, but most of the time 'rough compass' is all that is required. This merely involves frequent glances at the needle to make sure you are heading where you intend. The key to keeping on course is to keep the compass handy and check it regularly. Hang it from your wrist with the cord supplied.

Finding Your Position

If you do become disorientated, use the navigation techniques discussed in reverse to pinpoint your position. On a long line feature, such as a stream, ridge, track, or fence, take a bearing to a distant point feature, for example a peak. Plot this direction from the point feature on the map back towards the line feature you are on. Where the intersection occurs will be your position. The technique can also be used even when you are not lost, but merely wish to know how far along a particular line feature you have travelled. If you are not on a long line feature, it is necessary to take bearings from two point features and plot the intersection of these bearings as your position.

Orientating the Map with no Compass

It is not always necessary to use the compass to orientate the map. If there are several striking features in the surrounding scenery and you are familiar with these, it is a simple matter to rotate the map until the map and real features align. This technique is also useful near a linear or line feature such as a long ridge, road, or fence. Merely align the map feature with the actual feature. Care should be taken not to make a 180° degree error by pointing the map along the feature in the wrong direction. The surrounding landscape should help you to avoid this problem.

Outdoor Education cont.

Navigating without a Compass

If two members of the party each take a compass, then it is unlikely that both will get lost or broken. If however they do, then it will be necessary to find your bearings by other means. In a familiar area, local features will give a rough indication of direction from your memory of how the landscape fits together. For example, the direction of a stream or mountain range. If the day is clear and you have a good view, then it's possible to orientate the map by observing the position of prominent features, but it may be necessary to climb a hill or rock outcrop to do this.

Other methods involve observing the sun by day or the stars by night. Since a rough indication of direction is all that is needed, it suffices to note that the sun rises in the east and sets in the west. South of the Tropic of Capricorn, the sun is always north of these bearings, more so in winter. Around midday, the sun will be in the north, but this will be difficult to gauge unless the season is winter and the sun is far to the north.

North of the Tropic, the sun will be in the southern half of the sky for some time during the warmer seasons and allowance should be made for this. The shadow of a vertical stick placed in the ground can help determine the direction of the sun, even when it is hidden behind light clouds.

At night, the south pole can be determined by first finding the south celestial pole. A point on the horizon directly below this is the direction of south. The south celestial pole is found by identifying the southern cross and pointers formation. If a line is extrapolated from the bottom of the cross for four and a half cross lengths, you will arrive at the south celestial pole. Alternatively, draw an imaginary line from the bottom of the cross until you arrive at a very bright star, Achernar. Half way between this star and the Southern Cross is the pole. Note that by using these methods, what you are finding is true south, not magnetic south.

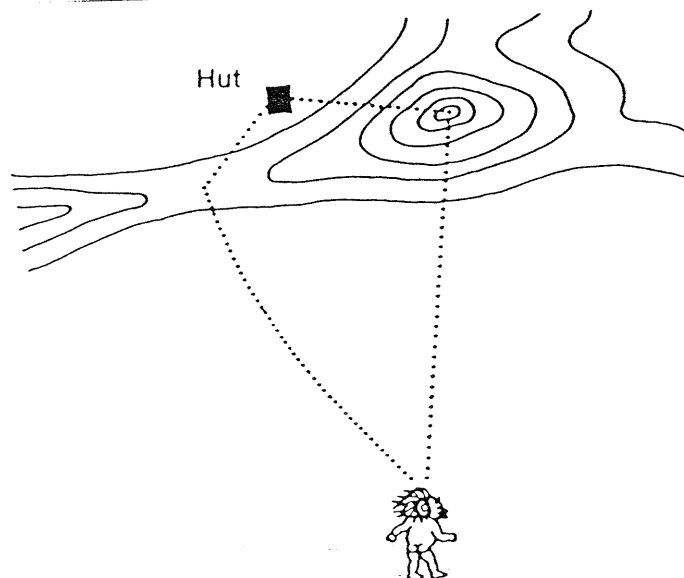
Some Useful Concepts

The following ideas have been gleaned from the sport of orienteering, which by its very nature has radically improved the efficiency of general bush navigation. The over-riding philosophy is not to rely heavily on accurate bearings, but instead become aware of your surroundings both in actuality and on the map. Relate the two through keen observation, keeping your position continually updated in your mind as you make progress.

To learn about navigation, there is no better way than to attend several orienteering events. Here tuition is available, and there is plenty of scope for you to test out many types of navigational skills. What follows are some important orienteering concepts which have wide applicability in bushwalking practice:

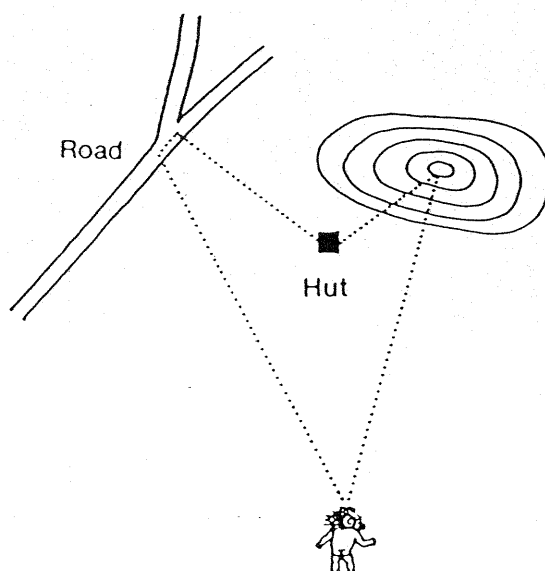
Outdoor Education cont.

1. Route finding is a mental operation in which negative feedback exists and is supplied by your awareness skills. One way of looking at route finding is to assume you are always drifting off course. Frequent navigational checks are employed to rectify this error, so that it does not compound itself. The more frequent these navigation checks, the closer you will keep to your intended route. Too frequent checks will, of course, slow you down unnecessarily, so a workable compromise must be reached.
2. Attack points are features which are close to, but much easier to locate than, the place you are heading for. An attack point could be a track or stream junction, a rock outcrop, a saddle, or any other prominent feature near to your desired destination. Locating this feature first is much easier than trying to head directly to your destination, especially if it is, say, a small hut hidden in bushes. Once at the attack point, the distance to your real destination is short, and easy to locate with an accurate compass bearing.
3. Collecting features are large features which you must pass enroute to your destination. Note them before embarking on the next leg of your route and mentally tick them off as they are passed. Collecting features include peaks, tracks, vegetation changes and any other large feature which can be easily seen. A collecting feature which is also a point feature near your destination, becomes an attack point.



Saddle and Peak as Attack Points

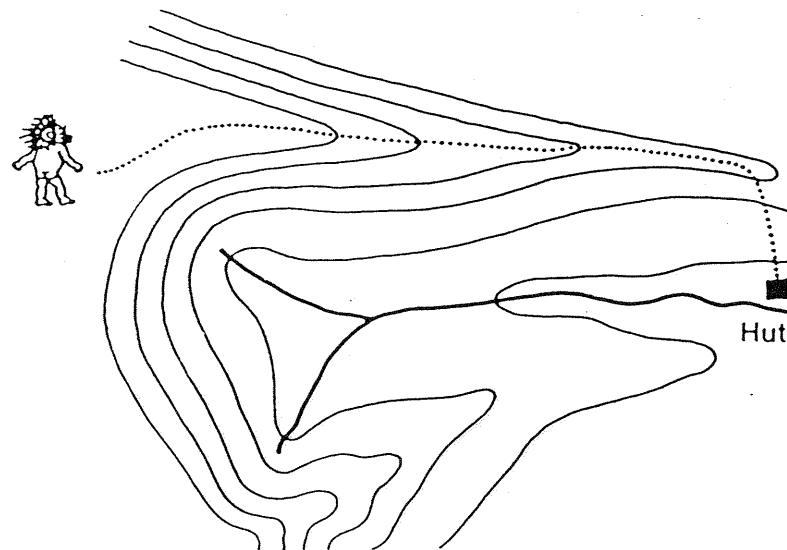
Outdoor Education cont.

**Road and Peak as Catching Features**

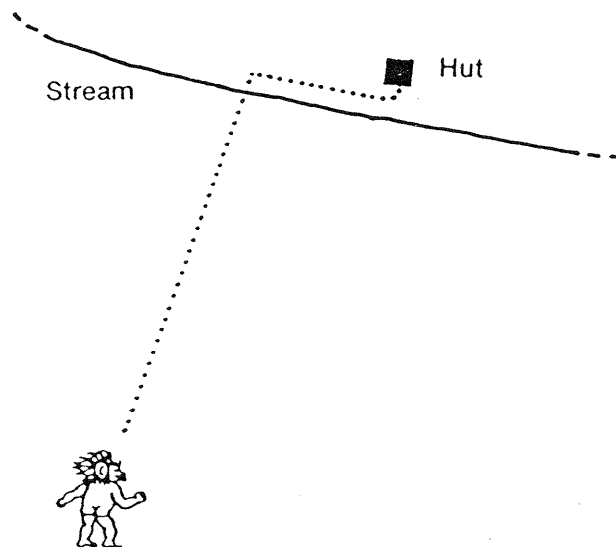
4. Often you will notice a prominent feature which is past your intended goal. These, too, have their use. Arriving at this feature, called a catching feature, immediately implies you have overshot the mark.
5. Handrails are line features which run in the general direction you wish to travel. Because they are usually easy to follow, navigation becomes simple. Handrails include tracks, fence lines, stream beds, ridges and other prominent linear features. These may not lie exactly on your course, but it is often advantageous to deviate to a handrail to facilitate navigation and sometimes ease of walking.
6. The previous ideas can be combined with a very useful technique known as 'aiming off'. Gone are the days of carefully logging your course across a featureless landscape in order to arrive exactly at your destination. Instead, your walk can be made in much quicker time and with great ease from the very outset by deliberately choosing the wrong bearing!

'Aiming off' involves studying the map in the vicinity of your destination and checking for handrails which, if followed, would lead close to your destination. As an example, suppose again your destination is a hut, located beside a stream. If the stream crosses your path, it will certainly be a lot easier to navigate to it, rather than trying to aim directly at the hut. If you deliberately choose to aim off to the left or right of the hut, upon reaching the stream you will immediately know in which direction the hut is. If, on the other hand, you tried to spear the hut (aim straight for it) you may miss it even after many hours of careful navigation, especially if it is well hidden by bushes. You would arrive at the stream and not know which way to turn.

7. Parallel feature errors can be made in a landscape with lots of similar features. You may have to cross many parallel ridges, and if you miscount the number, or interpret the map incorrectly, you may find yourself on the wrong ridge, and not know whether you have gone too far or not far enough. This can easily happen if, in the fine detail of the map, one of the ridges does not even show up. The same can happen for streams, and even tracks. Hopefully you will realise your error early when features no longer agree with what is expected. It is then a matter of sitting down and carefully figuring out exactly where you may be, and deciding whether to back track or carry on to the next similar feature.



Ridge used as a Handrail

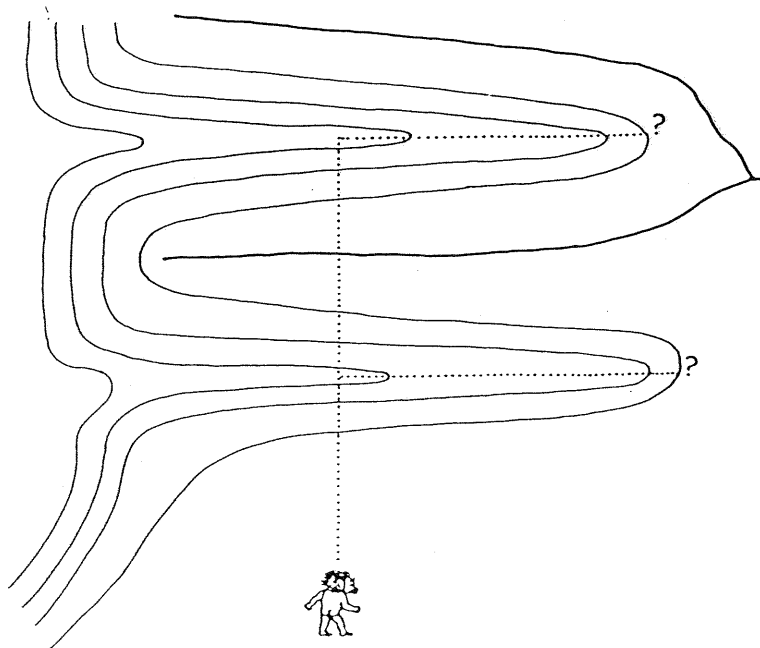


Aiming Off

Deliberate aiming off to the left so that direction of hut is obvious.

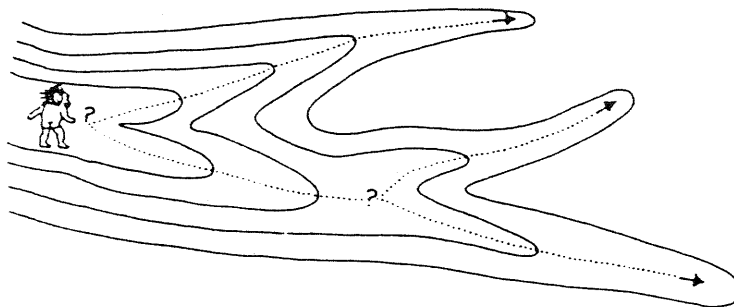
8. Do not underestimate the value of pace counting. It is especially useful in avoiding parallel errors. It is a way of introducing a degree of objectivity into the otherwise subjective art of distance gauging, which normally amounts to guessing. Although your gait may vary with the type of terrain (vegetation and slope), it is better than having no guide at all, and over short distances (up to one kilometre) can be surprisingly accurate. It is a matter of measuring your stride beforehand over a measured distance, and also having some idea how it varies with changing slopes, vegetation, and with pack weight.
9. Route choice should be made by taking the 'grain' of the terrain into account. Note which way the streams are flowing, or the ridges falling. Keep in mind that if you intend to ascend a water-course you will have to make continual decisions on route choice each time you arrive at a branch. If, on the other hand, you choose to ascend via a ridge, no decision is necessary, as all ridges converge towards a summit as you ascend. The opposite is applicable on the descent. This is one reason why ascending a mountain via a ridge and descending it via a creek makes good sense.

If the route lies across several ravines, it is often less tiring and quicker to detour above them by following the watershed. As a check on your navigation in complex terrain, always note from the map's contours whether you should be ascending or descending. This check is an additional safeguard against faulty map and compass work.



Parallel Error

Which ridge is the correct one?



Descending a Ridge

Decisions need to be made at each branch

10. In a white-out, where mist and snow combine to produce a white void, following contours is often your only means of accurate travel. If your destination is linked to your present position by a contour line, it is often feasible to follow this line as long as the terrain along it is negotiable. The difficulty with this contouring technique is to stay accurately on one level and not gradually ascend or descend. Another often surer technique for navigation in a white-out is to follow line features such as spurs, stream beds, or valleys.
11. If you intend to go home the same way you came, it makes good sense to look back occasionally to become familiar with the land in the reverse direction. This is particularly important at spots where you consider there may be a problem in making a route choice when approaching the spot in the reverse direction. As mentioned previously, this problem will arise when ascending or descending ridges and creeks. With each of these, problems with route choice change dramatically when you reverse your direction. ⁴¹

⁴¹Pages 242-254 permission sought from Robert Rankin, Australian Wilderness Skills, Robert Rankin Publication, Toowong, Qld.

NEW SKILLS DEVELOPMENT CONT.

RECREATION (1 Hour)

Participants will give study to the following:

1. Philosophy of Recreation (15 mins)
2. Types of and Guidelines for Christian Recreation (25 mins)
3. New Games and Sports (20 mins)

1. PHILOSOPHY OF RECREATIONOBJECTIVE

To expose the participant to our Adventist philosophy on recreation.

EXPLANATION

This objective will be achieved through:

- (a) Recreation as re-creation
- (b) Recreation versus amusement
- (c) Recreation as a lifestyle

TEACHING RESOURCEPhilosophy

We understand recreation to be concerned with three different stages, those stages being dependant on the age of the person participating and yet each lower stage being involved with the next one.

Those stages are:

1. An understanding of how the human body functions and the use of recreation to develop and maintain the body in a healthy and efficient manner.
2. The use of exercise, sport and leisure pursuits to develop skills, co-ordination and co-operation, either through team or individual recreational pursuits, and
3. The pursuit of interests to be maintained as a life-style, leading the person into forms of recreation that can bring them joy late in life, such as swimming or golf.

However, it is not "true recreation" if it is entirely selfish and doesn't lead to a better understanding of and a closer relationship to one's fellow man or God.

Recreation is that delightful time when Christians engage in activities to enjoy abundant living. Recreational activities have the distinctive characteristics of taking place during leisure time, are voluntarily chosen, and are enjoyable and constructive. There is a vast range of activities that fit this broad definition. Recreation gives opportunities to add balance to our lives. If we are sedentary most of the day, it offers time for vigorous activity. If we are primarily active it gives opportunities for relaxation. If we are alone in our work, it offers social choices and conversely, it offers tranquility for the harried. It is also a prime opportunity for families to enjoy time together and for church members to get to know one another better.

Recreation extends from Eden to Eternity. Our first parents had broad choices of activities in the Garden of Eden, their activities were freely chosen, constructive and enjoyable. To imagine them otherwise would drastically change the concept we have of that first garden home. The heaven we look forward to is also characterised by free time activities voluntarily chosen, that are enjoyable and constructive. We have unique opportunities in our recreation activities to develop our talents in keeping with the models of both Eden and Heaven and help re-create us fit for those environments.

Worship was also an integral part of the Eden environment distinct in its reverence, respect, adoration, communion and devotion to God. The Sabbath is dedicated to these purposes. We should be careful not to use recreation as an excuse for activities that impair these special relationships. We should maintain our special times for worship as well as providing time for meeting our recreation needs.

Recreation has unique potential to the organised church. It offers channels of service and support for others. Great blessings will be ours if we serve others' needs as well as our own interests in recreation. It is also a catalyst for outreach. Have you noticed how easy it is to accept an invitation to recreational activities and then witness to the abundant life in Christ? Recreation provides an avenue for fellowship both within the church and with non-members. It provides teaching opportunities with vivid examples of applied christianity. Opportunities for ministry are prevalent in recreation, especially for influencing the youth.

- J. Hanson -

Recreation as Re-Creation

A Christian's duty is not merely to make a living and achieve vocational success but to learn to live life to the full. Recreation affords just such an opportunity by providing avenues to enjoy life and be creative. Recreation is to be enjoyed but it is also a time for the enrichment of personality and a preparation for more abundant living. To achieve this requires a sense of values and a sense of direction.

Useful recreational pursuits develop those God-given talents with which a person may glorify God. True recreation develops the power of the intellect, strengthens the physical organs and refines and purifies the character. A lifestyle incorporating these biblical principles of recreation should characterise a Christian.

Recreation is therefore a valid part of the Christian's life. When these principles are taken into account, recreation then becomes a delightful time when Christians engage in activities to enjoy abundant living.

"There is a distinction between recreation and amusement. Recreation when true to its name, re-creation, tends to strengthen and build up. Calling us aside from our ordinary cares and occupations, it affords refreshment for mind and body, and thus enables us to return with new vigor to the earnest work of life. Amusement, on the other hand, is sought for the sake of pleasure, and is often carried to excess; it absorbs the energies that are required for useful work, and thus proves a hindrance to life's true success."

- Messages to Young People, P.362

Recreation Versus Amusement

Since the inception of sin in this world, however, Satan has always provided a counterfeit to God's ideals. Amusement is the antithesis of true recreation. This does not include what are commonly called "innocent pleasures" but differs from recreation in the area of motivation for participation. It glorifies self, is sought basically for pleasure, tends toward excess, denies the biblical principles of stewardship, confuses the senses of the youth and its excitement sets in motion desire that fill the mind with worldly pursuits which become so engrossing they deaden spirituality.

- See also M.Y.P. 385, 386.

Recreation as a Lifestyle

Some areas of recreation can be developed so that they become part of our lifestyle - or way of living.

There are many, for example, who exercise or jog each day.

"MADE FOR ACTION" 9 - 12

For outdoor recreation we could suggest -

1. Canoeing and boating, snow skiing, bicycle riding, hiking and camping, horseback riding, archery, skin-diving, orienteering, swimming, tumbling, table tennis, badminton, basketball, volleyball, softball, plus many outdoor group games of recreational value and teamwork spirit.

Recreation cont.

2. To continue our list, let's look at hobbies, of which quite a number are indoor activities, for those times when we cannot get outside. And many hobbies can be turned into financial profit as well. Here are just a few of the many hobby possibilities: photography, wood-working, metalcraft, model building, leatherwork, painting, ceramics, drawing, flower arrangement, music, sculpturing, stamp collecting, coin collecting, rock collecting, weaving, cooking, sewing, radio repair, electronics, physical culture, and so on.
3. And for the girls, how about cooking as one of your hobbies? Surely no skill is more important. It can be fun to learn to prepare attractive, mouth-watering dishes, and it not only can contribute to your future happiness but also be a means of helping people come closer to God's ideal.
4. In thinking of leisure-time activities, we should not forget those things which could develop into a means of livelihood - such as auto mechanics, shop work, gardening, bricklaying, and carpentry.

And if, looking for something to do, you just can't get to a ski slope, or find a rowboat, or a lawn mower, or a ball and bat, or opportunity for any of the other things which we have mentioned, there yet remains one very pleasant activity which is almost certain to be available - a good walk. Philip Wylie writes of walking as "an ideal form of exercise," and nearly a century before the Kennedys popularised this form of exercise, Mrs. White wrote that "there is no exercise that can take the place of walking". (T. 3, p.78)

2. TYPES OF AND GUIDELINES FOR CHRISTIAN RECREATION

OBJECTIVE

To create an awareness of and a commitment to our Adventist standards of recreation.

EXPLANATION

Participants will discuss:

- (a) Scope and types of Christian recreation (hiking, camping, sport clubs etc.)
- (b) Tests and guidelines for recreation.

Recreation cont.

RESOURCETypes of Activities

1. Adventure - hang gliding, para sailing, camping etc.
2. Aquatics - sailing, canoeing etc.
3. Exercise - aerobics, slimnastics, hiking etc.
4. Dual - tennis etc.
5. Track and field.
6. Gymnastics.
7. Individual - archery etc.
8. Team - basketball etc.

Variety is important in recreation.

Biblical Tests and Guidelines for Recreation

1. Does it help Develop the Image of God in me?

Romans 8:29 For those God foreknew he also predestined to be conformed to the likeness of His Son, that he might be the firstborn among many brothers.

1 John 3:2,3 Dear friends, now we are children of God, and what we will be has not yet been made known. But we know that when He appears, we shall be like Him, for we shall see Him as He is. Everyone who has this hope in him purifies himself, just as He is pure.

Gal. 4 19 My dear children, for whom I am again in the pains of childbirth until Christ is formed in you.

Gal. 2:20 I have been crucified with Christ and I no longer live, but Christ lives in me. The life I live in the body, I live by faith in the Son of God who loved me and gave himself for me.

Eph. 5:1 Be imitators of God, therefore, as dearly loved children.

Heb. 3:1 Therefore, holy brothers, who share in the heavenly calling, fix your thought on Jesus, the apostle and high priest whom we confess.

Phil. 3:12-14 Not that I have already obtained all this, or have already been made perfect, but I press on to take hold of that for which Christ Jesus took hold of me. Brothers, I do not consider myself yet to have taken hold of it. But one thing I do: Forgetting what is behind and straining towards what is ahead, I press on towards the goal to win the prize for which God has called me heavenwards in Christ Jesus.

2. Does it Make me a Good Stewart of my Time?

1 Cor. 4:2 Now it is required that those who have been given a trust must prove faithful.

Phil. 1:10 So that you may be able to discern what is best and may be pure and blameless until the day of Christ.

Matt. 25:21 His master replied, Well done, good and faithful servant! You have been faithful with a few things; I will put you in charge of many things. Come and share your master's happiness!

Eph. 5:15,16 Be very careful, then, how you live - not as unwise but as wise, making the most of every opportunity, because the days are evil.

3. Is it Good for my Self Development?

1 Cor. 6:19 Do you not know that your body is a temple of the Holy Spirit, who is in you, whom you have received from God? You are not your own.

Phil. 4:8 Finally, brothers, whatever is true, whatever is noble, whatever is right, whatever is pure, whatever is lovely, whatever is admirable - if anything is excellent or praiseworthy - think about such things.

2 Cor. 10:5 We demolish arguments and every pretension that sets itself up against the knowledge of God, and we take captive every thought to make it obedient to Christ.

Col. 1:10,11 And we pray this in order that you may live a life worthy of the Lord and may please Him in every way; bearing fruit in every good work, growing in the knowledge of God, being strengthened with all power according to His glorious might so that you may have great endurance and patience and joyfully giving thanks to the Father.

4. Does Participation Build my Self Esteem

Matt. 22:36-39 Teacher, which is the greatest commandment in the Law? Jesus replied: 'Love the Lord your God with all your heart and with all your soul and with all your mind. This is the first and greatest commandment. And the second is like it: Love your neighbour as yourself'

Romans 8:1 Therefore, there is now no condemnation for those who are in Christ Jesus.

Recreation cont.

Luke 12:6,7 Are not five sparrows sold for two pennies? Yet not one of them is forgotten by God. Indeed, the very hairs of your head are all numbered. Don't be afraid; you are worth more than many sparrows.

John 15:9 As the Father has loved me, so have I loved you. Now remain in my love.

5. Will it Bring an Awareness of Others and their Needs?

Matt. 25:40 The King will reply, I tell you the truth, whatever you did for one of the least of these brothers of mine, you did for me.

1 Cor. 10: 23,24 Everything is permissible - but not everything is beneficial. Everything is permissible - but not everything is constructive. Nobody should seek his own good, but the good of others.

Col. 4:5 Be wise in the way you act towards outsiders; make the most of every opportunity.

Luke 6:31 Do to others as you would have them do to you.

Phil. 2:3,4 Do nothing out of selfish ambition or vain conceit, but in humility consider others better than yourselves. Each of you should look not only to your own interests, but also to the interests of others.

Eph. 6:2 Honour your father and mother - which is the first commandment with a promise.

6. Will it Improve or Impair my Health?

1 Cor. 3:16,17 Don't you know that you yourselves are God's temple and that God's Spirit lives in you? If anyone destroys God's temple, God will destroy him, for God's temple is sacred, and you are that temple.

Gal. 6:7 Do not be deceived: God cannot be mocked. A man reaps what he sows.

7. Will it be a Stumbling Block to Anyone Else?

1 Cor. 4:9 For it seems to me that God has put us apostles on display at the end of the procession like men condemned to die in the arena. We have been made a spectacle to the whole universe, to angels as well as to men.

1 Cor. 8:9 Be careful, however, that the exercise of your freedom does not become a stumbling block to the weak.

Recreation cont.

Romans 14:13, 7 Therefore let us stop passing judgement on one another. Instead, make up your mind not to put any stumbling-block or obstacle in your brother's way. For none of us lives to himself alone and none of us dies to himself alone.

Heb. 12:12,13 Therefore, strengthen your feeble arms and weak knees! Make level paths for your feet, so that the lame may not be disabled, but rather healed.

8. Is it Fitting for the Hour in Which I Live?

2 Peter 3:10-14 But the day of the Lord will come like a thief. The heavens will disappear with a roar; the elements will be destroyed by fire, and the earth and everything in it will be laid bare. Since everything will be destroyed in this way, what kind of people ought you to be? You ought to live holy and godly lives as you look forward to the day of God and speed its coming. That day will bring about the destruction of the heavens by fire, and the elements will melt in the heat.

Titus 2:11-13 For the grace of God that brings salvation has appeared to all men. It teaches us to say "NO" to ungodliness and worldly passions, and to live self-controlled, upright and godly lives in this present age, while we wait for the blessed hope - the glorious appearing of our great God and Saviour, Jesus Christ.

9. Does it Clearly Belong to the World?

Matt. 6:24 No-one can serve two masters. Either he will hate the one and love the other, or he will be devoted to the one and despise the other. You cannot serve both God and Money.

Romans 12:1,2 Therefore, I urge you, brothers, in view of God's mercy, to offer your bodies as living sacrifices, holy and pleasing to God - which is your spiritual worship. Do not conform any longer to the pattern of this world, but be transformed by the renewing of your mind. Then you will be able to test and approve what God's will is - His good, pleasing and perfect will.

Col. 3:1,2,5 Since, then, you have been raised with Christ, set your hearts on things above, where Christ is seated at the right hand of God. Set your minds on things above, not on earthly things. Put to death, therefore, whatever belongs to your earthly nature: sexual immorality, impurity, lust, evil desires and greed, which is idolatry.

Recreation cont.

Mark 8:36,37 What good is it for a man to gain the whole world, yet forfeit his soul? Or what can a man give in exchange for his soul?

1 Peter 1:13-15 Therefore, prepare your minds for action; be self-controlled; set your hope fully on the grace to be given you when Jesus Christ is revealed. As obedient children, do not conform to the evil desires you had when you lived in ignorance. But just as he who called you is holy, so be holy in all you do.

Col. 2:20,21 Since you died with Christ to the basic principles of this world, why, as though you still belonged to it, do you submit to its rules: Do not handle! Do not taste! Do not touch!

Eph. 5:8 For you were once in darkness, but now you are in light in the Lord. Live as children of light.

Luke 12:34 For where your treasure is, there your heart will be also.

10. Does It Glorify God?

Matt. 5:16 In the same way, let your light shine before men, that they may see your good deeds and praise your Father in heaven.

1 Cor. 10:31 So whether you eat or drink or whatever you do, do it all for the glory of God.

Phil. 1:27 Whatever happens, conduct yourselves in a manner worthy of the gospel of Christ. Then, whether I come to see you or only hear about you in my absence, I will know that you stand firm in one spirit, contending as one man for the faith of the gospel.

Eph. 4:1 As a prisoner for the Lord, then, I urge you to live a life worthy of the calling you have received.

SPIRIT OF PROPHECY GUIDELINES FOR RECREATION

The following references are all from "Messages to Young People"

- | | |
|--|-------|
| 1. Can you invite the presence of Christ | 370 |
| 2. Does it excite the lower passions? | 371 |
| 3. Does it refresh and uplift you? | 385 |
| 4. Does it trouble your conscience? | 385,6 |
| 5. What of it's influence on others? | 386 |
| 6. Can I ask the blessing of God on it? | 386 |
| 7. Would you like to die there? | 398 |
| 8. Would you like to be found there when Christ comes? | 398 |
| 9. Is money spent as a good steward? | 400 |

Recreation cont.

3. NEW GAMES AND SPORTS

OBJECTIVE

To make the participant conscious of the need to discover, learn and use new games and sports.

EXPLANATION

New games and sports will be explained and demonstrated to the participant by the seminar instructor.

TEACHING RESOURCE

Because we want NEW games and sports introduced we cannot provide a list of activities. The seminar leader will need to provide a list of new games and sports each seminar.

TEACHER'S
RESOURCE MATERIAL
FOR
NEW SKILLS
DEVELOPMENT

SECTION TWO — B

ADMINISTRATION AND HUMAN RELATIONS

Participants are required to do either requirement 1, or 2.

REQUIREMENT 1

Outline and present to your District Director:

- (a) a yearly program for your club
- (b) a schedule for teaching the total requirements of one Pathfinder class during the Pathfinder year.

OBJECTIVE

To demonstrate the ability of the participant to organise the local club's program for one year including the outline for teaching a Pathfinder curriculum.

EXPLANATION

Participants are required to present a detailed outline of a club program for one Pathfinder year detailing all dates for regular club meetings, club outings, campouts, bi-monthly events and investiture days as well as the Annual Conference events such as the fair, rally day, and expedition. Detailed with this program should be a precise outline of each date set for covering the various aspects of class curriculum requirements leading to investiture for one of the Pathfinder classes the participant is involved in teaching.

RESOURCE

A.P.S.M. 89 - 100
T.R.M. - J. 26 - 35

EVALUATION

Forward your completed assignment to the District Director for evaluation and arrange to have details of your evaluation inserted in your PLA Record Book, signed and dated.

REQUIREMENT 2

Lead a thirty minute group discussion with a Teen Pathfinder class and report to a fellow staff member on your observations regarding the group dynamics that took place during the discussion.

OBJECTIVE

To demonstrate the ability of the participant to understand and facilitate group interaction by responding appropriately to the group tasks and needs.

Administration and Human Relations cont.

EXPLANATION

Participants will need to select a class period for a teen Pathfinder Class and engage in a group discussion of the selected topic required by the curriculum. It is expected that participants will demonstrate their understanding of group dynamics and the role and function of group leaders learnt in Section Two of the PLA.

RESOURCE

Refer to page 24 Administration and Human Relations segment of New Skills curriculum dealing with "Understanding how Group Works" and "Leading a Group Discussion".

EVALUATION

Give a report to a fellow staff member (preferably your Club Director or Deputy Director) of your group discussion, and arrange for them to sign and date your PLA Records Book.

CAMPING

REQUIREMENT 1

Write your own statement on philosophy of camping and present it to your District Director or Conference Youth Director.

OBJECTIVE

To provide opportunity for participants to assess their personal view of the importance of camping ministries and to determine the role that it plays in the Pathfinder program.

EXPLANATION

It is most important that Pathfinder club administration recognise the importance of having a coherent philosophy of camping. Camping plays an important and significant part of the club program, and campouts need to be carefully considered and planned in order to provide appropriate occasions for effective ministry.

RESOURCE

See "Philisophy of Camping" - Section Seven of Basic Staff Training Part 2.
A.P.S.M. 137, 138

EVALUATION

Assessment made by District Director or Conference Youth Ministries personnel. Your Pathfinder leadership Record Book should be signed by your District Director or Conference Youth Ministries personnel.

REQUIREMENT 2

Learn and demonstrate four novelty fires in a campout situation.

OBJECTIVE

To encourage course participants to develop an awareness of the value of having a collection of novel ideas for fires used in a campout setting.

EXPLANATION

An element of surprise and variety is important in ministry to Pathfinders and fires used in a campout situation provide an effective medium for Pathfinder staff to give evidence of thought and planning in the program, as well as providing occasions for making object lessons.

RESOURCE

See folder Adv. PLA

A. Turner.

EVALUATION

Assessment by course examiner.

BIBLIOGRAPHY

Bushcraft Series - Richard Graves.

Camping cont.

REQUIREMENT 3

Be able to light four novelty fires.

OBJECTIVE

This requirement will encourage candidates doing the Pathfinder Leaders Award to develop a list of "novelties" to help Pathfinders to remember important material and lessons.

RESOURCE

It is recommended that each type of novelty fire be tried and/or practiced before presenting it to the Pathfinders.

(a) The Fire Ball

A long length of thin, strong wire is stretched from a high branch of a nearby tree to a peg driven into the centre of the prepared fire. The wire has to enter the fire where the fire is to be lit.

Threaded onto the wire, at the tree end, is a spool around which has been wrapped a thick wad of cotton wool soaked heavily in melted paraffin, ether or petrol etc. When the Pathfinder Director calls for the fire, a trusted person, well concealed in the tree, ignites quickly the fireball and lets it slide down the wire to ignite the prepared tinder in the fire.

Care must be taken to ensure that the wire will not be noticed as campers file into the circle and that the person lighting the ball does not release it before lighting or burn himself while releasing the spool. The fine wire can be cut at the campfire and while the opening songs are being sung.

(b) The Self-lighting Fire

Mix together equal quantities of Glycerine and Condyl's Crystals. If this is in a shallow, open container, in the open air, it is perfectly safe. If it is enclosed, it will explode, so the greatest care should be exercised in the preparation of this fire. Place the shallow container on the ground and build a wigwam fire over it. The mixture will slowly cause the tinder to ignite.

(c) Rainbow Fire

You can make your campfire very colourful by producing different coloured flames. Collect pine or banksia cones and dip them into various chemical solutions and allow them to dry thoroughly. The cones must be dry before you dip them into the solutions. Do not mix any of the chemicals together.:-

Camping cont.

Common Salt	- Yellow
Strontium Nitrate	- Red
Barium Nitrate	- Apple Green
Copper Nitrate	- Emerald Green
Calcium Chloride	- Orange
Potassium Nitrate	- Yellow
Potassium Chlorate	- Violet
Lithium Chloride	- Purple
Copper Sulphate	- Blue-green

Incense slowly burning makes a pleasant fragrance.

Burning Joss Sticks will help to repel mosquitoes.

(d) Water & Oil Fire

One of the hottest, more intense fires you can make is to burn water and oil together.

About the easiest method is to place a steel or iron plate on a couple of stones, a foot above ground level. Light a fire beneath this plate to make it really hot and while it is heating, arrange a pipe or narrow trough about two or three feet long. One end of the pipe or trough is over the centre of the plate, and the other end is a foot or so higher than the plate. Into the top end of the pipe arrange, by means of a funnel, water and sump oil to be fed down the pipe to the hot plate. The proportion of flow is two or three drops of water to one drop of oil. When the water and oil fall onto the hot plate it will burn with a white flame of very great heat. The rate of flow can be governed by cutting a channel in corks which plug the bottles holding the water and oil, or if tins are used, pierce holes in the bottom of the tins and use a plug to control the flow.

This type of fire is excellent for an incinerator when great heat is required to burn out rubbish. It also makes an excellent "Campfire" where strong flame and light are required and wood is in short supply. ⁴²

(e) Bottle Organs

Here is an item that will need very careful rehearsal. Eight Pathfinders each get a bottle and fill it with water that has been tinted various colours. Each Pathfinder also needs a torch. The first problem is to convert the eight bottles into the eight notes of the octave. Keep pouring out small quantities of water until by blowing across the top of the bottle, a note is obtained. This calls for very careful regulating.

Camping cont.

The Pathfinders next arrange themselves in order up the scale. A simple air should be chosen - one that falls within the eight-note range of the bottle organ. This tune should be rehearsed until it is note perfect.

At the campfire, the Pathfinders line up, each holding a torch at the ready below the bottle, pointing upwards. Every time a Pathfinder blows a note, he switches on his torch so that the bottles will glow in rainbow hues: red, orange, yellow, lime, green, turquoise, blue, purple, as the tune is played.

CHURCH AND COMMUNITY MINISTRY

REQUIREMENT 1

Lead a Pathfinder unit or club in at least one form of community outreach.

OBJECTIVE

To involve the participant in the selection, organising and conducting of an outreach activity that is ideally suited to the individual talents and capabilities of the Pathfinder under his/her care.

EXPLANATION

The participant may choose an outreach activity discussed and presented at an earlier seminar on Church and Community Ministry or may opt to design another activity better suited to his/her Pathfinders. Whichever activity is chosen, it must be done in consultation with the Pathfinders and after discussion and discovery of their spiritual gifts.

RESOURCE

Refer to Seminar material on Church and Community Ministry.

EVALUATION

Upon completion of the requirements, arrange to have PLA Record Book signed and dated.

REQUIREMENT 2

Discover one's own spiritual gifts and confirm these by discussion with the Church Pastor, District Director, or Conference Youth Ministries personnel.

OBJECTIVE

To allow each participant to recognise their spiritual gifts and understand how these may be developed and utilised in ministry for the church.

EXPLANATION

Above all, outreach must be enjoyed. This can be achieved far better when the type of activity engaged in is adapted to a person's own special talents. Self esteem and self worth are increased when they see their contribution is valuable to the work as a whole. It is possible the participant may want to attend a program to discover his/her spiritual gift. Contact the Church Pastor or Conference Church Ministries personnel for details.

RESOURCE

Refer to Seminar material on Church and Community Ministry.

EVALUATION

Upon completion of the requirements arrange to have PLA Record Book signed and dated.

CREATIVITY

REQUIREMENT 1

Introduce a new creative idea into your club and evaluate its effectiveness and acceptance.

OBJECTIVE

To develop the participants' creative skill to formulate and present a new idea into their local Pathfinder program.

EXPLANATION

Participants will need to give thought to the overall Pathfinder program, and choose one area in which they would like to try something new. For example, it may be a different way of commencing the evening program within the club - a new way of advertising the club to the church, or designing a different way of organising the club for Pathfinder Fair practise. The idea needs to be presented to the members of the local Pathfinder club staff, and a record made of their comments on its strengths or weaknesses.

EVALUATION

Evaluate the practicability of your creative idea by presenting it to your local Pathfinder club staff meeting. Record comments made at the group discussion on the strengths and weaknesses of your idea. Present your Record Book to the Club Director for signature.

REQUIREMENT 2

Teach three Pathfinder requirements using your own unique and creative resource material.

OBJECTIVE

To develop the participants creative teaching skills.

EXPLANATION

From one of the six classes, Friend to Guide, select three requirements that you wish to present to the members of the class of your choice, using your own creative teaching methods. Check the TRM-T or the TRM-J for the content of requirements.

RESOURCE

Practical Suggestions:

Friend

Participate in a role play of Daniel 1.

Companion

Choose one of Christ's parables and produce creative aids, or role play that would help the Pathfinder to understand and remember the lessons to be gained from the parable.

Explorer

Share your understanding of how Jesus saves individuals by making a series of pictures, charts or models.

Ranger

Present in skit form, a teaching presentation of the subject of social graces.

Voyager

In a creative way demonstrate by poster or role play what your group understands to be the meaning of peer pressure.

Guide

As a group prepare a program on healthful living that could be presented to a public group.

EVALUATION

Present to your District Director of Conference Youth Ministries personnel, a personal evaluation of your creative idea, programs or special feature, and teaching methods. This may include an evaluation made by the Pathfinder members and staff members. Present Record Book for District Director or Conference Youth Ministries personnel to sign.

DRILL AND MARCHING

REQUIREMENT 1

Prepare and execute three ten-minute marching demonstrations.

OBJECTIVE

To provide participants with an opportunity for demonstrating their competence in leading a group in basic drill requirements, and testing their leadership skills in promoting enthusiasm and involvement.

EXPLANATION

Participants will need to recognise the importance of reviewing and mastering the techniques for teaching basic positions, as all other drill requirements are dependent on these basics. Emphasis will need to be given to review - it's the secret for success in mastering close order drill. Remember - 'practice makes perfect'.

EVALUATION

Assessment by Club Director, District Director or Conference Youth Ministries personnel, and present P.L. Record Book for signing.

REQUIREMENT 2

Plan and conduct a church parade or march past.

OBJECTIVE

To allow participants to become familiar with all the information and details for leading a Pathfinder Club in a church parade and an official march past.

EXPLANATION

Participants will need to check with the appropriate personnel to arrange occasions for fulfilling this requirement. The local church pastor and elders will need to be familiar with your plans for a church parade. The Pathfinder Fair would be a suitable occasion for a march past. Check with the Conference Youth Ministries personnel or District Director for details.

RESOURCE

Study Chapters 15 and 16, p 67-71 of Part 2 APSM.

EVALUATION

Assessment by District Director or Conference Youth Ministries personnel and present your Record Book for signing.

Drill and Marching cont.

REQUIREMENT 3

At a Pathfinder campout, lead a unit in flag raising and flag lowering.

OBJECTIVE

To provide participants with the opportunity to demonstrate their skills in leading a unit in flag ceremonies in a Pathfinder campout situation.

EXPLANATION

Participants will need to:

1. Make necessary preparation of flags, poles and ropes.
2. Acquaint the Pathfinders of marching procedure and instruct the colour guard in flag folding procedure.

RESOURCE

APSM Part 2, p. 62-64.

EVALUATION

Assessment by local Club Director, District Director or Conference Youth Ministries personnel and present your Record Book for signing.

OUTDOOR EDUCATION

REQUIREMENT

Demonstrate your awareness of and expertise in outdoor wilderness skills by organising and directing for your club any one of the following activities.

- (a) Organise a simulated search and rescue event in a campout situation.
- (b) Set up a nature activity suitable for the Sabbath.
- (c) Conduct an orienteering event. Provide for beginner and advanced levels.

OBJECTIVE

To allow participants to demonstrate these outdoor wilderness skills, by providing an outdoor activity at club level.

EXPLANATION

Participants will need to assess the skills of the Pathfinders and choose one of the activities that will best suit the group, and the overall Pathfinder club program. Participants will need to care for all the plans and details, and ensure the activity is carried out in a safe manner.

If the nature activity is chosen, participants should include in the activity reference to unique specimens found in the area. The activity may also include references to stories and texts from Scripture that refer to nature.

SAMPLE NATURE ACTIVITY

Some Wildflowers on the expedition you may wish to identify are:

Prickly Spider Flower (*Grevillea juniperrina*)

Unlike most of the Grevilleas this small bushy shrub, 1-2 feet high, bears its flowers in short spikes, with only a few in each group. The leaves are smooth and very prickly. The flowers range in colour from yellow to pale pink or deep cream tinged with pink. It is common in Victoria and New South Wales, and is occasionally found on the coast, but more commonly on the Dividing Range, particularly in the south. It also occurs in Tasmania. Its flowering period is spring to summer.

Heath Milkwort (*Comesperma ericinum*)

This is a common eastern shrub with purple or pink flowers and heath-like leaves. The flowers are small, clustered in terminal heads, each flower having five petal-like sepals, two of which resemble the "wings" of pea flowers, with which it is often confused. It occurs on the sandy coastal stretches of all States. It flowers in spring and early summer.



Buttons or Slender Rice Flower
(*Pimelea linifolia*)

All the *Pimeleas* are small shrubby plants with white, pink, yellow or (in one Queensland species) red flowers. *P. linifolia* grows in the open sandy country on the eastern coast. It is a slender shrub, sometimes as much as 3 ft high, though usually shorter. The flowers are collected into a terminal head surrounded by four broad, smooth bracts, and are white, tinged with pink. The bright orange coloured stamens protrude from tubular flowers, and add to their attraction. It flowers in winter and early spring.



Veined Sun Orchid
(*Thelymitra venosa*)

The labellum (lip) of *Thelymitra*, unlike most orchids, is scarcely different from the other sepals and petals, and all are free so that the open flower is not orchid-like in appearance. The plants are slender, 1 - 2 feet high, with a solitary, rather long, narrow leaf. The flowers are produced in an inflorescence of one to six, 1 inch or less in diameter, blue with dark veins. The margin of the labellum is slightly crisped. It is found commonly on the highlands of New South Wales, Victoria, South Australia, and Tasmania. It flowers in summer for a long period.



Wild Iris or Leafy Purpleflag
(*Patersonia glabrata*)

The stem of this plant grows to a height of 3-6 inches, with two rows of narrow, spreading leaves 2-12 inches long, hairy at the base. The flowers are enclosed in brown, hairy, sheathing bracts, solitary or two to three, purple, with an expansion of 1-1½ inches. The three petals are papery and very delicate. They open for a brief period on sunny days but soon fade. It grows on the coast of Queensland, New South Wales, and Victoria, flowering in spring.



Pink Buttons
(*Kunzea capitata*)

This erect twiggy shrub grows 2-4 feet high and bears narrow or broad leaves about ¼ inch long. The flowers are in rounded heads, the petals and numerous stamens purplish-pink. The stamens are twice or three times as long as the petals. It occurs in the coastal areas, mostly on damp peaty soil, of Queensland, New South Wales, and Victoria, flowering in spring and summer.



BIRD KEY - as supplied by Carnarvon National Park
(Courtesy of Queensland National Parks & Wildlife Service)

This key is designed to enable you to identify the common birds found in Carnarvon National Park. Success in identification depends upon your recognising certain important characteristics. These characteristics are as follows:

Size of bird

- (a) LARGE - about the length of a kookaburra or larger.
- (b) MEDIUM - about half the size of a kookaburra and slightly larger.
- (c) SMALL - sparrow size and slightly larger
- (d) VERY SMALL - smaller than a sparrow.

* Size and shape of bill. Look particularly to see if the bill has a downward curve. Length of the tail relative to the length of the body.

* Colour of bird and where the colour patches are. Look particularly at any colour patches on the tail and around the face.

* Colour of the eye ring.

It will be necessary to get a good view of the bird to key it out. Do not expect to be able to key out a bird you see only briefly. To use the key start at 1 and follow the characteristics through until you have keyed out the bird. For example if the bird fits the medium category go from 1b to 6. If the bird is parrot-like 6a directs you to 7. If the bird has a pale yellow or white head, 7b tells you that you are looking at a pale-headed rosella. Hopefully we have not led you astray and your identification is correct. It is important that you follow the key explicitly and not make assumptions.

Following the key there are complete descriptions of each species. You can check your identification against these descriptions. The information on diet may allow you to better understand some of the behaviour of the birds you are watching.

If the bird does not appear to fit any of the characteristics at some stage in the key, remember that this key covers only the most common species and you may be looking at a bird that is not included. A reference list of field guides covering all Australian birds is given following the key. Some of these are available at the Information Centre if you wish to look at them.

Good luck!

Outdoor Education cont.

IDENTIFICATION

- | | | |
|---|----------------|----------|
| 1 | a. Bird large | go to 2 |
| | b. Bird medium | go to 6 |
| | c. Bird small | go to 11 |

Large Birds

- | | | |
|---|--|--|
| 2 | a. Bird with long neck | |
| | b. Bird cockatoo-like | |
| | c. Parrot with emerald green wings
and back; blood red breast;
(male, red head; female, green
head) | King parrot |
| | d. Bird black or black and white | go to 5 |
| 3 | a. Bird with long down-curving bill | Straw-necked ibis |
| | b. Bird black to black-brown | Darter |
| | c. Bird with black upper parts:
white underside | Little pied cormorant |
| | d. Bird blue-grey all over, white
face | White-faced heron |
| 4 | a. Black cockatoo with yellow
feathers in tail | Yellow-tailed black cockatoo |
| | b. Black cockatoo with red
feathers in tail | Glossy black cockatoo |
| | c. White cockatoo with yellow crest
on head | Sulphur-crested cockatoo |
| 5 | a. Bird black all over | Australian crow or
Australian raven |
| | b. Bird with yellow eye ring | Pied currawong |
| | c. Bird with black body, white
patches on wings seen in
flight | White-winged chough |
| | d. Bird with white on back, wings
and tail | Magpie |
| | e. Waterbird with white patches
on tail | Dusky moorhen |

Medium Birds

- | | | |
|---|--|---------------------|
| 6 | a. Bird parrot-like | go to 7 |
| | b. Body of bird black and white | go to 8 |
| | c. Bird with grey back and wings | go to 9 |
| | d. Not as 6a, b or c | go to 10 |
| 7 | a. Parrot with blue head | Rainbow lorikeet |
| | b. Parrot with very pale yellow
or white head | Pale-headed rosella |
| 8 | a. Bird with white on head | Peewee |
| | b. Bird without white on head | Pied butcher-bird |

- | | | |
|----|--|-----------------------|
| 9 | a. Grey bird;darker above,
lighter below | Grey shrike-thrush |
| | b. Bird with rufous (rust-brown)
throat and breast | Fan-tailed cuckoo |
| | c. Bird with black, unfeathered
head;distinct knob on upper
bill | Noisy friar bird |
| | d. Bird with black head and white
throat | Grey butcher bird |
| 10 | a. Bird shiny black with long fish-
like tail | Spangled drongo |
| | b. Bird with red bill; white
patches under wing seen in
flight | Dollar bird |
| | c. Bird with olive-yellow back
and wings;face patch blue on
adults,greenish-yellow on
juveniles | Blue-faced honeyeater |

Small Birds

- | | | | |
|----|--|-----------------------------|--|
| 11 | a. Bird with curved bill (look
closely) | go to 12 | |
| | b. Bird with straight bill | go to 17 | |
| 12 | a. Bird with yellow on head | go to 13 | |
| | b. Not as 12a | go to 14 | |
| 13 | a. Bird with black and yellow
head;yellow patch behind ear | Yellow-tufted honeyeater | |
| | b. Bird with yellow bill;small
yellow patch behind eye | Noisy miner | |
| | c. Colourful bird with orange-
yellow head;black stripe
through eye | Rainbow bee-eater | |
| 14 | a. Bird with white on head or
throat | go to 15 | |
| | b. Not as 14a | go to 16 | |
| 15 | a. Bird with grey head and white
throat | White-throated tee-creeper | |
| | b. Bird with black head;white
throat;red eye ring | White-naped honeyeater | |
| | c. Bird with black throat and
side of face;white ear patch | White-eared honeyeater | |
| | d. Bird with dark grey head; whitish
ear patch | Lewin honeyeater | |
| 16 | a. Bird with red head;throat and
breast; black wings | Scarlet honeyeater (male) | |
| | b. Bird with brown upperparts; pale
brown underside; slight crimson
wash on throat | Scarlet honeyeater (female) | |

- 17 a. Bird with some yellow feathers go to 18
 b. Bird with black or near-black back go to 19
 c. Not as 17a or b go to 20
- 18 a. Bird with black head, white throat and yellow breast Golden whistler (male)
 b. Bird with grey head and yellow breast Yellow robin
- 19 a. Bird with rufous (rust-brown) throat Welcome swallow
 b. Bird with black throat Willie wagtail
 c. Bird with white throat Restless flycatcher
- 20 a. Bird with bright azure head and back;rufous abdomen Azure kingfisher
 b. Grey pigeon-like bird with dark grey lines around neck Peaceful dove
 c. Bird with white feathers in tail go to 21
 d. Grey bird;darker above, lighter below Golden whistler (female)
- 21 a. Grey bird with white line above and below eye;long fanned tail Grey fantail
 b. Grey-brown bird;darker above, lighter below;no white lines on face Jacky winter

Tiny Birds

- 22 a. Bird with long,upright tail go to 23
 b. Not as 22a go to 26
- 23 a. Bird with red or blue on back go to 24
 b. Not as 23a go to 25
- 24 a. Bird with red on back Red-backed wren (male)
 b. Bird with blue on back Varigated wren (male)
- 25 a. Drab brown bird with blue tail Varigated wren (female or juvenile)
 b. Drab brown bird with brown tail Red-backed wren (female or juvenile)
- 26 a. Bird with yellow patch on throat; white line above eye Striated pardalote
 b. Bird with red eyebrow and rump Red-browed finch
 c. Not as 26a or b go to 27
- 27 a. Bird with white line above eye; white throat White-browed scrub-wren
 b. Bird with fine streaking about forehead and throat Striated thornbill
 c. Bird with scalloping (dark crescents)about throat; Rufous patch on forehead Brown thornbill
 d. Very small 'very small' bird Weebill

Following is a list of Australian Birds and you may wish to check your resources such as 'Birds of Australia' or 'What Bird is That'.

Darter	Red-browed firetail
Little pied cormorant	Spangled drongo
White faced heron	White-winged chough
Straw-necked ibis	Australian magpie-lark
Dusky moorhen	Grey butcherbird
Peaceful dove	Pied butcherbird
Glossy black cockatoo	Australian magpie
Yellow tailed black cockatoo	Pied currawong
Sulphur-crested cockatoo	Torresian crow
Rainbow lorikeet	
Australian king parrot	
Pale-headed rosella	
Fan-tailed cuckoo	
Rainbow bee-eater	
Dollarbird	
Welcome swallow	
Eastern yellow robin	
Jacky winter	
Golden whistler	
Grey shrike-thrush	
Restless flycatcher	
Grey fantail	
Willie wagtail	
Varigated fairy-wren	
Red-backed fairy-wren	
White-browed scrub-wren	
Weebill	
Brown thornbill	
Striated thornbill	
White-throated tree-creeper	
Noisy friar bird	
Noisy miner	
Lewin's honeyeater	
White-eared honeyeater	
Yellow-tufted honeyeater	
White-naped honeyeater	
Scarlet honeyeater	
Striated pardalote	

STARTING ORIENTEERING IN YOUR CLUB

DO YOU KNOW WHAT ORIENTEERING IS?

If not, try to develop an understanding of the sport by:

1. Participating in a local event (Details from local club).
2. Attending an 'O' course run by the Department of Sport and Recreation.
3. Attending an inservice teachers' course on orienteering.
4. Reading about it. (There are many excellent texts around).

HOW CAN I FIND OUT ABOUT ORIENTEERING AT A LOCAL LEVEL?

Try to establish community links by contacting 'O' support organisations, namely:

(a) At National level:

Orienteering Federation of Australia (O.F.A.)
P.O. Box 16,
ABBOTSFORD 3067

(b) At State level:

The above organisation will be able to put you in contact with current contact persons in your area by way of State organisations.

(c) Subscriptions to the magazine "Australian Orienteer" can be purchased through O.F.A. This will keep you up to date with news on the sport.

WHAT EQUIPMENT WILL I NEED TO ESTABLISH MY PROGRAM?

Maps

Contact your club - they may have mapped an area near you. If not, draw a simple sketch map of your school grounds, or use a local street map. With a little help you might even map a nearby area yourself.

Compasses

Available from State associations, Government Stores or your local Scout Shop.

Teaching Aids

Contact State associations or alternatively and with the assistance of a good text, prepare your own set of aids.

Books

Contact State association for a list of current publications. Your local Scout Shop will also stock a limited range of texts.

Equipment

Markers, punches, control cards etc are not really necessary at this stage. Be prepared to improvise.

Orienteering Club

For those who want to go beyond the basic skills, why not establish an 'O' club within your Pathfinder Club? Keep members informed about local events, and for those who are ultra keen, establish training programs.

Promotion

'Awareness' or lack of it is one of the greatest barriers to recreation participation. Publicise forthcoming local events and try to foster an interest in orienteering by putting up posters that reinforce the benefits of the sport as well as basic skills. 'Knowledge of results' is an important motivational agent in sport - keep keen members informed about how they're progressing. Encourage individuals to set themselves objectives that are within their own capabilities.

Above all else, however, be enthusiastic and try to foster a spirit of enjoyment for both the youth and yourself.

CHECKLIST FOR ORGANISING ORIENTEERING EVENTS

1. Obtain permission for use of land
 - (a) first done when preparing map
 - (b) then for each event
2. Decide on assembly area
 - (a) all weather access and parking
 - (b) suitable for all courses
 - (c) avoid hazards
 - (d) avoid conflict with others eg bikies.
3. Plan suitable courses and visit all possible control sites so that clear and accurate descriptions can be prepared. Check all routes for map corrections, and note these on maps to be put at registration. Avoid control sites where any doubt exists.
4. Plan a time schedule of preparation, leaving spare times for the unforeseen to happen.
5. Prepare ahead
 - (a) master map of all control locations and their codes
 - (b) master maps (2 per course) checked for accuracy and put on boards with red pens that work
 - (c) control descriptions-checked codes and accuracy and produce sufficient copies.

Starting Orienteering in your Club cont.

6. Gear

- (a) the maps
- (b) control cards
- (c) pens for (i) filling out entry cards
 - (ii) for use at start-finish
 - (iii) for filling out map corrections (red)
 - (iv) to go with master maps (red)
- (d) results - blocks and header board
- (e) first aid kit - check and replenish
- (f) clocks for start and finish
- (g) tape - masking and sticky
- (h) start and finish banners and maybe streamers
- (i) provision for garbage
- (j) toilets
- (k) provision for water at finish and possibly on course
- (l) shelter from wind and rain
- (m) plastic bags for maps

7. Timer at start - either manned or self-start.

8. Timer at finish - pen and paper for recording, code checks for each course.

9. At registration - approximate time for courses, entry cards and sheets of paper for recording participants.

10. At assembly point have (i) informant sign
 (ii) entry cards
 (iii) control descriptions
 (iv) pens
 (v) 2 copies map corrections
 (vi) tape

11. In the field check (i) markers securely tied
 (ii) punch there and working
 (iii) correct code symbol
 (iv) marker in correct place

12. Have personnel to work at registration, start, finish, collecting markers.

13. Provision for table and chairs or substitutes at start, finish and registration.

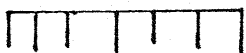
14. Clean up all rubbish before leaving site.

Thanks to David Arthur for material in this resource.

Starting Orienteering in your Club cont.

SESSION 1 : 0-TRAINING

Map Symbols From your map, write down the meaning of these symbols:



1. _____

2. _____

3. _____

4. _____

5. _____



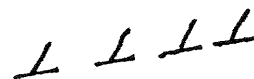
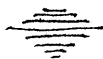
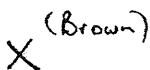
6. _____

7. _____

8. _____

9. _____

10. _____



11. _____

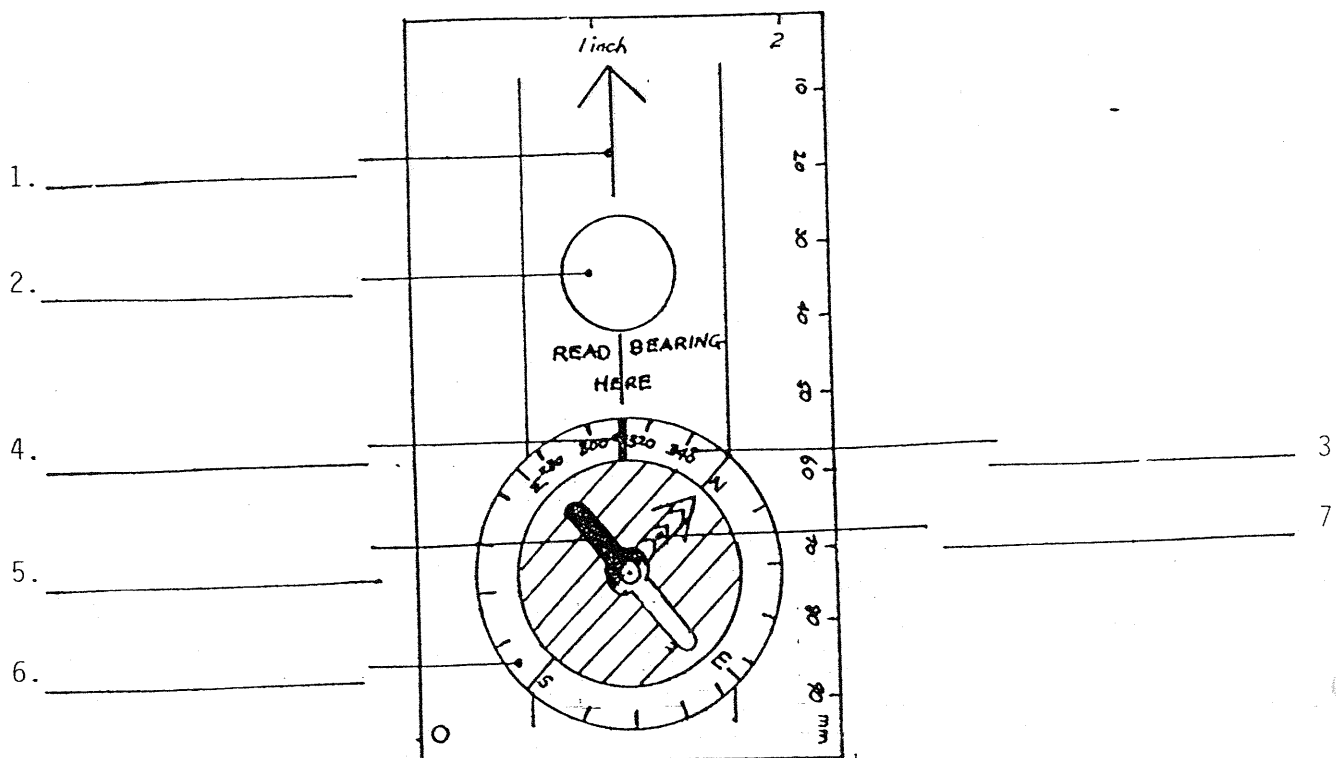
12. _____

13. _____

14. _____

15. _____

Your Compass and Its Parts - Label the diagram.



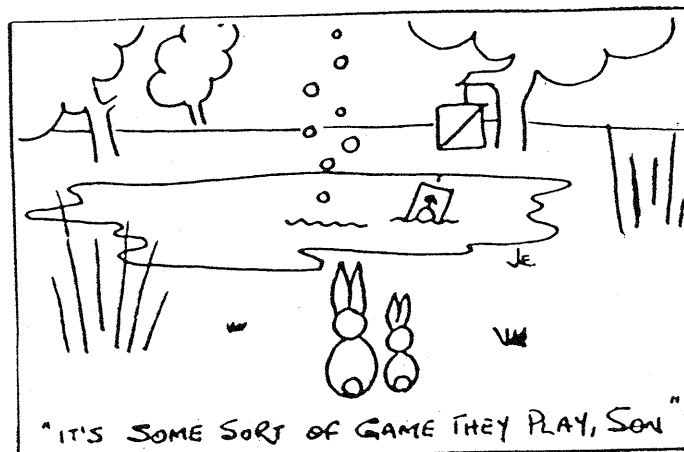
Starting Orienteering in your Club cont.

With the help of your instructor, orient your map. This means that the magnetic north lines on your map will line up exactly with the red end of the needle on the compass. Try it for yourself!

The Course

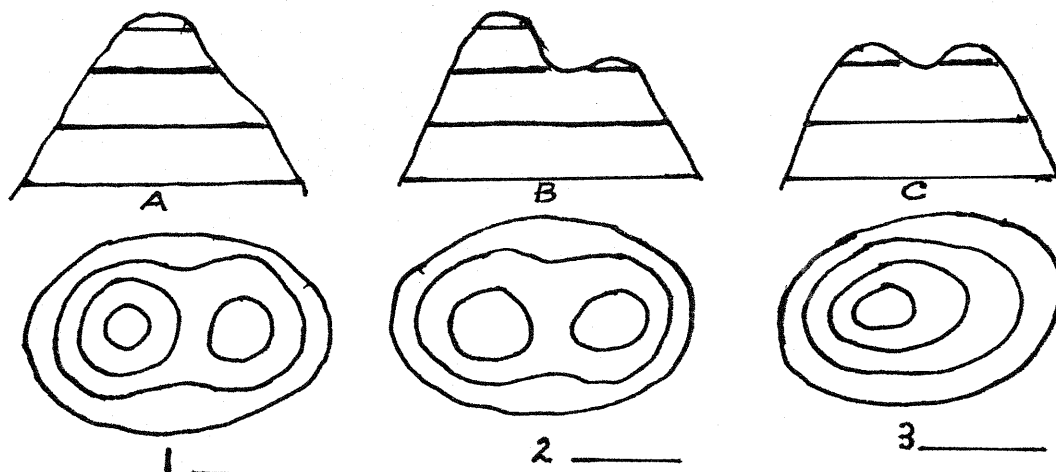
The aim of this first course is to introduce you to the basics of reading a map, and keeping it oriented as you move around the bush. Your aim is to visit all the controls in order in the shortest possible time.

1. Go to the tent and register for your course by filling in a card.
2. After getting a start time, make your way to the START area.
3. At the start you will receive further instructions, as well as a map and clue sheet.
4. The starter will send you off when your start time arrives.
5. Try to use your own knowledge to navigate around the course. It will be far more satisfying for you to do this rather than rely on someone else's skill by following them.



SESSION 2 : MORE ADVANCED MAP WORK

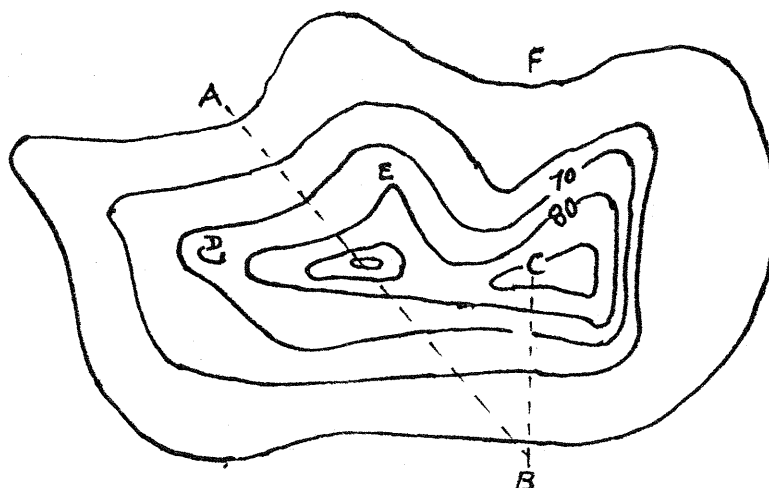
1. Match the side views (either of A, B or C) with the top views (either 1, 2 or 3) in the diagram below.



2. Complete the contour exercise below.

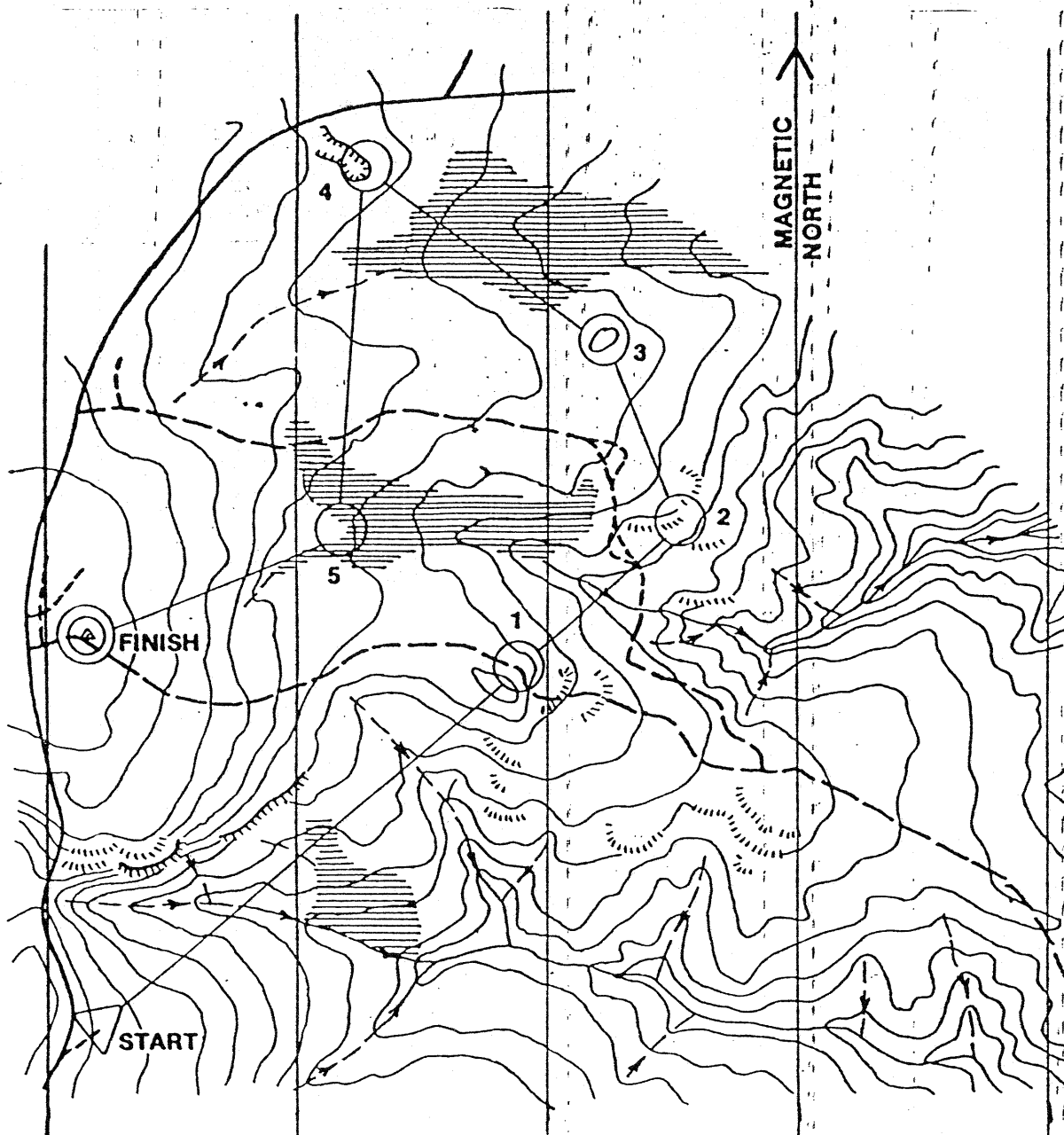
Use the contour map shown in Fig.40 to answer the questions. This map has a contour interval of 10 metres. Each line represents a 10 metre change in altitude.

- Fill in the missing altitudes.
- Is A higher or lower than C?
- Can you see B from A?
- Is A higher or lower than B?
- Can you see D from A?
- Draw in (using the proper symbols) the most likely place for a creek, dam, trig station and small watercourse. Indicate the direction of flow of the creek and watercourse.
- Draw a fence around a flat area that you could use for a paddock.
- Draw an 'S' where the slope is the steepest.
- Draw a profile of the terrain you would cross if you walked directly from A to B.



3. Your instructor will now show you how to do something which will improve your orienteering immensely - that is, how to take a bearing from the map, and then walk (or run) on that bearing. This technique will really increase your speed!

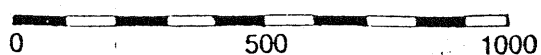
Starting Orienteering in your Club cont.

"THE MAP"

MOWLEE RIDGE

ROYAL NATIONAL PARK

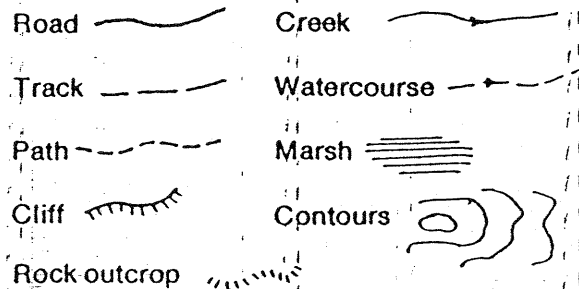
SCALE 1:15000



CONTOUR INTERVAL 7.5 METRES

PLANIMETRY FROM EXISTING 1:25000
TOPOGRAPHIC MAP

Fieldwork by Ian Hassall for Kareelah Orienteers
Cartography by Dave Lotty



With reference to "The Map", answer the following questions:-

Before you start thinking about the course (and certainly before you start running), inform yourself about the map in general.

- (a) What is the scale of the map?
- (b) Fifty millimetres on the map equalsmetres on the ground.
- (c) What is the contour interval?

Now orient the map and pretend you are standing at the start. You are facing north-west, in the general direction of number 1 control.

- (d) Are you standing on a hill or in a gully?.....
- (e) Is the main road behind you or in front of you?.....
- (f) Is it more to your right or to your left side?.....

Control 1 - the track bend

- (a) What are the two most probable routes?.....
- (b) If you decide to run along the road and then along the track, what is the distance to the control?.....
- (c) How many metres of climbing are there if you follow this route?.....
- (d) From the junction of the road and the track, how far will you have to go before reaching the control?.....
- (e) Name at least two things which will tell you if you have overshoot the control.....
- (f) If you decide on a more direct route (crossing over the top of the marsh and the long creek, what is the distance?.....
- (g) Is the navigation as easy as it is on the other route choice?.....
- (h) How many metres of climbing are there this way?.....

Control 2 - the rock outcrop

- (a) Although there are probably three general route choices, only one seems to be really good. Which is it?.....
- (b) Allow yourself a 30 second look at the map, then cover it and describe the features and terrain you will see if you go by the direct route.....

Control 3 - knoll summit

- (a) You decide to do the next leg on a direct bearing. What is it?..
- (b) What is the distance to the control?.....
- (c) Are there any surrounding features that would aid your navigation?.....
- (d) How would you know if you had overshoot the control?.....

Starting Orienteering in your Club cont.

Control 4 - depression, east end

- (a) From control 3 to 4 you decide to go on a direct bearing, but somehow you end up at a road junction. What two things could you then do to locate the control?

1.
2.

Control 5 - marsh (eastern tip of solid land)

- (a) You might decide to go on a dead-straight bearing to control 5. What would that bearing be?
- (b) How many metres of climbing are there on this route?
- (c) How else could you approach the control?
- (d) Which route would be faster?

Finish - the trig station

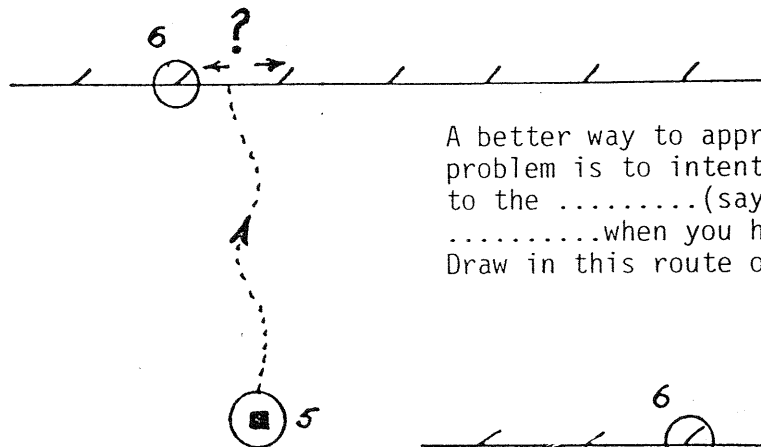
Often, if the last control is near the finish, the course setter will mark the way to the finish with coloured streamers. However, on this occasion the course setter has decided to let the orienteer work it out. How would you get to the finish?

.....

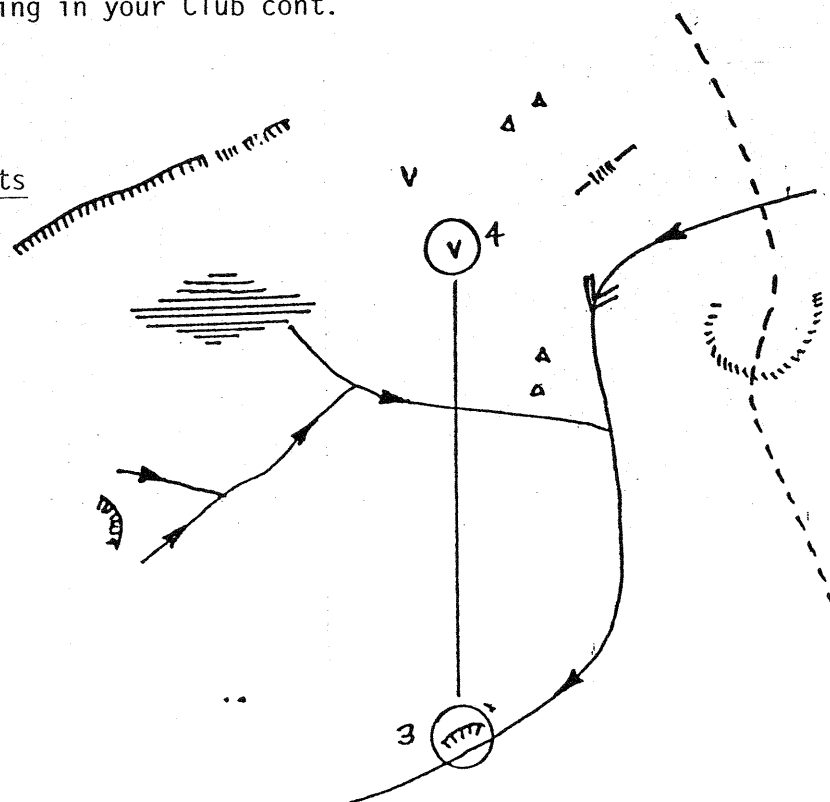
SESSION 3 : SOME FURTHER ADVANCED TECHNIQUES1. Aiming Off

This occurs when an orienteer intentionally tries to..... the.....

Consider this problem; note that the control..... from the point where you hit the fence.



A better way to approach this problem is to intentionally aim-off to the(say) and then headwhen you hit the..... Draw in this route on the next map.

2. Attack Points

An attack point is anear the.....which can be used to navigate from the.....site. Draw in on the map a possible route for an orienteer using an obvious attack point.

Name some other suitable attack points: 1.
2.

Name some other suitable attack point

3. Pace Counting

Run up and down the 100 metre course at orienteering speed. Each time count the number of times your right foot hits the ground during the distance. Record the results.

1st time

2nd time Average

3rd time

This figure now enables you to judge distance.

4. Stoplight Thinking

RED LIGHT 1. Look at your map and.....it.
2. Consider
3. Look for
4. Make a

GREEN LIGHT (the early part of the leg)
1. Go
2. Keep aon your position.

ORANGE LIGHT (near the control area)
1.
2. Make sure of your.....

RED LIGHT (within 50 metres of the control)
1.
2. Use yourand your.....to locate the control.

Punch your card, move slightly away from the control, and begin the process again.

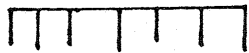
Starting Orienteering in your Club cont.

SESSION 1 : O-TRAINING

Map Symbols From your map, write down the meaning of these symbols:



1. Rocky ground



2. Cliff (impassable)



3. Fence



4. Road



5. Power Line



6. Watercourse



7. Man-made feature



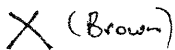
8. Boulder



9. Path



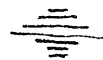
10. Track



11. Ant nest



12. Building



13. Marsh

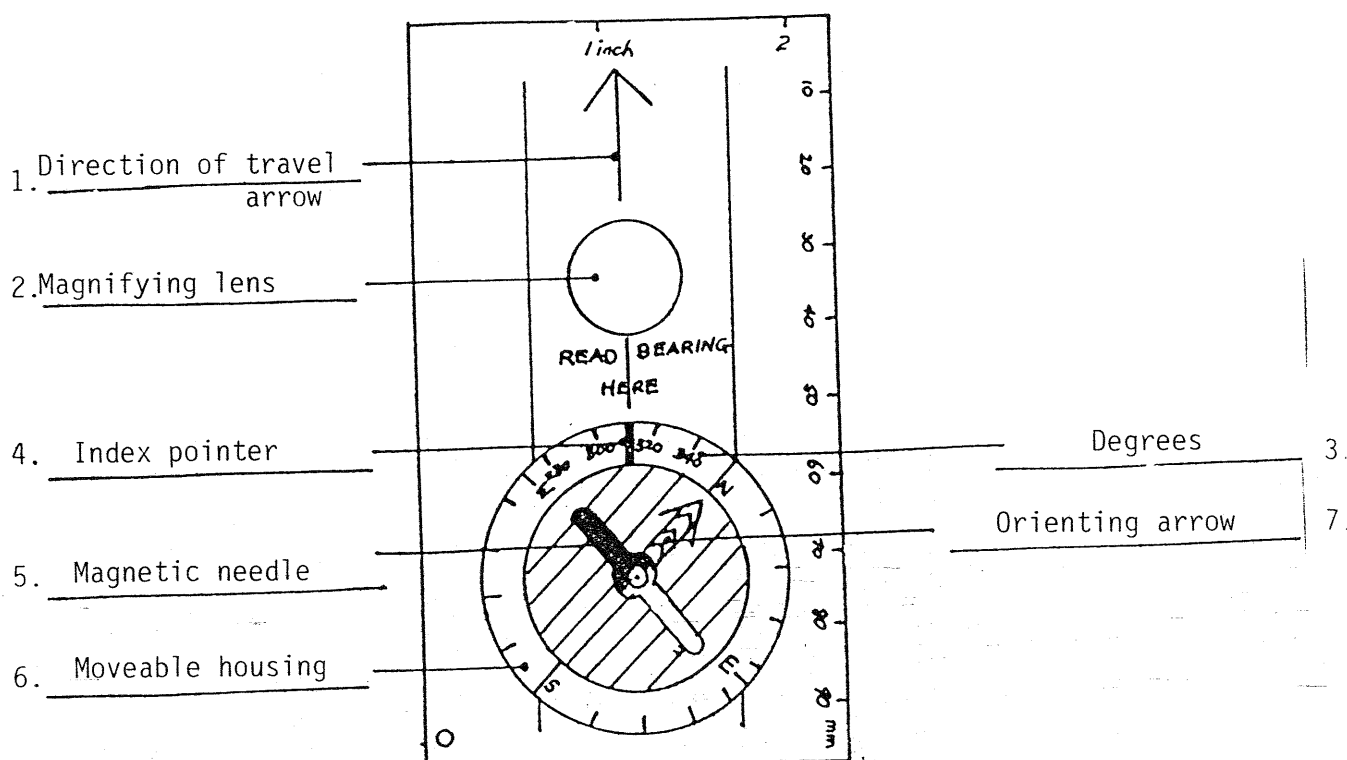


14. Fenceline



15. Pit

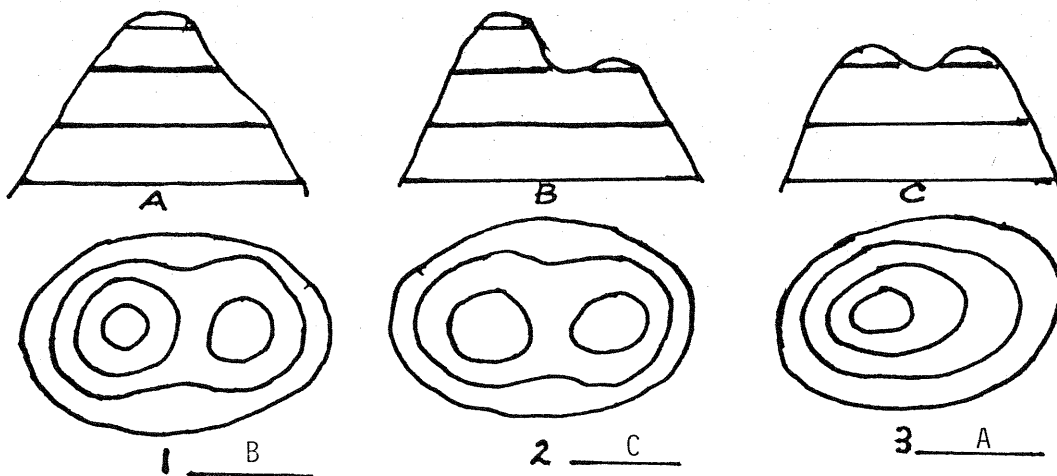
Your Compass and Its Parts - Label the diagram.



Starting Orienteering in your Club cont.

SESSION 2 : MORE ADVANCED MAP WORK

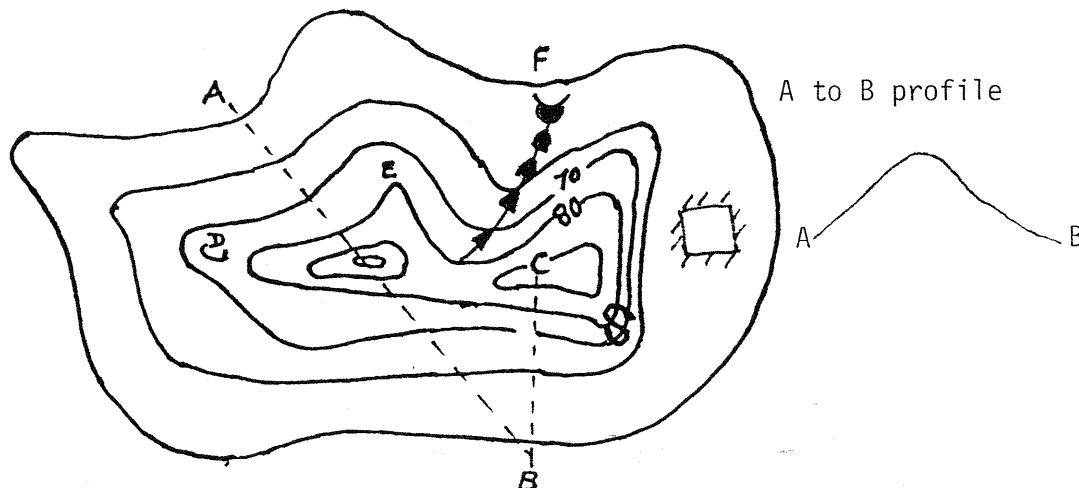
1. Match the side views (either of A, B or C) with the top views (either 1, 2 or 3) in the diagram below.



2. Complete the contour exercise below.

Use the contour map shown in Fig.40 to answer the questions. This map has a contour interval of 10 metres. Each line represents a 10 metre change in altitude.

- Fill in the missing altitudes.
- Is A higher or lower than C? Lower
- Can you see B from A? No
- Is A higher or lower than B? Same height
- Can you see D from A? Yes
- Draw in (using the proper symbols) the most likely place for a creek, dam, trig station and small watercourse. Indicate the direction of flow of the creek and watercourse.
- Draw a fence around a flat area that you could use for a paddock.
- Draw an 'S' where the slope is the steepest.
- Draw a profile of the terrain you would cross if you walked directly from A to B.



3. Your instructor will now show you how to do something which will improve your orienteering immensely - that is, how to take a bearing from the map, and then walk (or run) on that bearing. This technique will really increase your speed!

Starting Orienteering in your Club cont.

With reference to "The Map", answer the following questions:-

Before you start thinking about the course (and certainly before you start running), inform yourself about the map in general.

- (a) What is the scale of the map? ...1:15,000.....
- (b) Fifty millimetres on the map equals ⁷⁵⁰metres on the ground.
- (c) What is the contour interval? ...7.5 metres

Now orient the map and pretend you are standing at the start. You are facing north-west, in the general direction of number 1 control.

- (d) Are you standing on a hill or in a gully?.....hill....
- (e) Is the main road behind you or in front of you?...behind
- (f) Is it more to your right or to your left side?....left

Control 1 - the track bend

- (a) What are the two most probable routes? road and track; OR
straight across north of marsh....
- (b) If you decide to run along the road and then along the track, what is the distance to the control?...about 2,700 metres..
- (c) How many metres of climbing are there if you follow this route?.....⁴⁵.....
- (d) From the junction of the road and the track, how far will you have to go before reaching the control?...about 1,200 m.
- (e) Name at least two things which will tell you if you have overshot the control...steeper descent - rock outcrops.....
- (f) If you decide on a more direct route (crossing over the top of the marsh and the long creek, what is the distance?...1,200 m.
- (g) Is the navigation as easy as it is on the other route choice?....No.....
- (h) How many metres of climbing are there this way?⁴⁵ climb; 45m fall

Control 2 - the rock outcrop

- (a) Although there are probably three general route choices, only one seems to be really good. Which is it? Run to track where it branches then follow outcrop around.
- (b) Allow yourself a 30 second look at the map, then cover it and describe the features and terrain you will see if you go by the direct route.....Downhill to cross creek, climb slightly to track division then straight on to (2)

Control 3 - knoll summit

- (a) You decide to do the next leg on a direct bearing. What is it?..336°
- (b) What is the distance to the control?....^{450m}.....
- (c) Are there any surrounding features that would aid your navigation?...Control is on the point of a spur
- (d) How would you know if you had overshot the control?...Hit marsh

Starting Orienteering in your Club cont.

Control 4 - depression, east end

- (a) From control 3 to 4 you decide to go on a direct bearing, but somehow you end up at a road junction. What two things could you then do to locate the control?
1. Go west along road for about 200m then south
 2. Go south to edge of marsh then west

Control 5 - marsh (eastern tip of solid land)

- (a) You might decide to go on a dead-straight bearing to control 5. What would that bearing be? 184°
- (b) How many metres of climbing are there on this route? 7.5m
- (c) How else could you approach the control? Run around road and track to marsh then follow around western edge
- (d) Which route would be faster? The second

Finish - the trig station

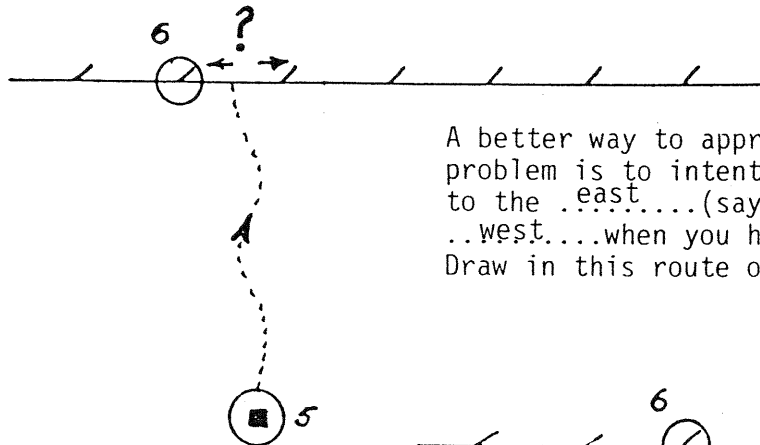
Often, if the last control is near the finish, the course setter will mark the way to the finish with coloured streamers. However, on this occasion the course setter has decided to let the orienteer work it out. How would you get to the finish?

Straight on a bearing of 250° (one possibility)

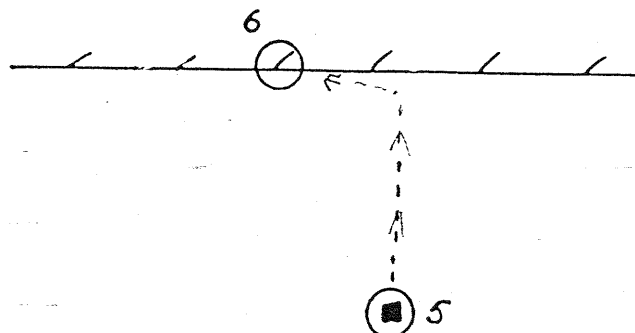
SESSION 3 : SOME FURTHER ADVANCED TECHNIQUES1. Aiming Off

This occurs when an orienteer intentionally tries to..miss.. the..control.....

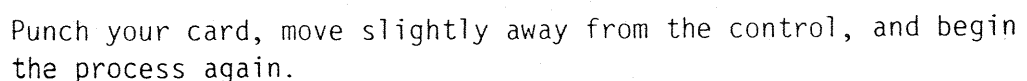
Consider this problem; note that the control..... is west from the point where you hit the fence.



A better way to approach this problem is to intentionally aim-off to the east....(say) and then head west....when you hit the fence.. Draw in this route on the next map.



2. Attack Points



RECREATION

During the participant's involvement as a staff member of the local Pathfinder Club, practical skills in Pathfinding should be demonstrated by completing Requirements 1(a) and (b) or 2(a) and (b).

REQUIREMENT 1

- (a) Write five guidelines for participant's choice of recreational activities.
- (b) Create and demonstrate at least one game to fulfill a Pathfinder class requirement.

REQUIREMENT 1A

Write five guidelines for participant's choice of recreational activities.

OBJECTIVE

To help the participant develop strong personal reasons for choosing types of recreation.

EXPLANATION

This is to be done in the participant's own time and then submitted to the District Director or Conference Youth Director for approval.

The submission must be in writing. Participants should elaborate on the reason given for the guidelines.

RESOURCE

Guidelines are given to assist pastors, youth leaders, school teachers and the membership at large in determining acceptable and non-acceptable forms of recreation.

It should be remembered that these are only guidelines and have been developed from Biblical principles and should not be used in isolation but in conjunction with the philosophy statement on recreation. These guidelines are only guidelines and not principles. The principles of recreation are soundly based on principles in the Word of God and the Spirit of Prophecy, which are clearly defined. These should always be borne in mind in determining acceptable and non-acceptable forms of recreation. These guidelines therefore should be used as a screening process once the Biblical principles are known and accepted.

To test a recreational activity to determine whether it is acceptable or not acceptable for a Christian to engage in the broad screens to be used ask questions on health, time, finance, influence, the gospel and personal development. Each should be explored and all areas covered.

1. Health

Recreational activities chosen should develop the whole man. They should not impair the mental or physical abilities of the individual. The effect upon the person should be free of artificial stimulation. The activities should be well chosen and free of danger. The equipment should be in good repair for use and safety. The transportation to and from if required needs to be thoroughly checked and the supervision needs to be adequate. If a specialised activity is envisaged it is necessary to see that the supervisors appointed have the necessary qualifications to carry out their tasks and instruction. Such an activity then entered upon should build up and strengthen the health of the individual, both mentally and physically.

2. Time

We are stewards of the talent of time that God has granted to us. Recreational activities would be chosen on the basis that it would be an appropriate use of our time, and also that the time chosen be the best time to conduct that activity. Carrying an acceptable activity to excess or prolonging it to late hours and so infringing the laws of temperance and impairing health would not be an appropriate use of time. On the other hand, adequate time needs to be given to recreation that will relax the mind and body and develop the image of God in us in harmony with sound Biblical principles.

3. Finance

Remembering that we are stewards of the finance that God has given to us, the activity chosen must be appropriate for us to put our money into. It should not deprive the work of God of funds. A recreational activity while on many occasions acceptable, could become unacceptable if it was unduly expensive and became exclusive to a certain group or exclude others because the price became inhibitive. It should never make a distinction between the haves and the have nots.

4. Influence

To determine a recreational activity acceptable or non-acceptable it is necessary to pass the screen of influence. This may sound very nebulous but possibly is one of the more important areas. The influence of the activity chosen should be considered both on the spectators and the participants, the language, dress and deportment of the individual taking part and on the mission of the church. All need to be considered in their impact. The cumulative result of a continuation of the activity needs to be borne in mind. It should bring credit and not dishonour to the family, the church, God, community and friends. It should never be a stumbling block, but rather a stepping-stone to something greater. It should emphasize Christian values. It should never increase the risk of worldly conformity. It should up-life and not awaken interests in evil. It should not make sin attractive or minimise the seriousness of sin.

5. Gospel

The gospel and mission of the church must always be borne in mind by those participating in all activities. Recreational activity wisely chosen should have an impact upon the life of the individual in developing the image of God and in the joy and happiness of the association and of fellowship allowing full reign for the Holy Spirit to work upon the heart. This is a very sensitive area but is fundamental to the choice of recreation. Such questions should be asked of the activity: Can I ask God's blessing on it? Will it decrease or increase the voice of conscience? Will it effect my responsibility towards God or fellow man? In other words, will it create apathy? Is it expressively forbidden by God? Will it effect my moral strength? Will it effect my desire for prayer and Bible study? Will it blunt my sensitivity towards sin? Activities chosen in this way should encourage Christian joy and enthusiasm and an inward peace. They will then achieve appropriate spiritual objectives.

6. Development

Recreational activities may be chosen on the basis of cultural improvement, refinement, creativity, self worth, and social development. Also to be borne in mind in this area would be whether the person would be ashamed of friends or associates knowing of the activity. Choice would not be self centred but sensitive to the needs of others and many times will help develop co-ed relationships.

These are the broad screens for determining whether an activity is acceptable or non-acceptable. If they have passed these tests there are also several fine screens and general guidelines.

(a) Acceptability:

That is, acceptable to the church community. Does it need to be organised or spontaneous? Is it an activity that is acceptable in the culture and community in which you live? It should be noted that an activity deemed suitable for an individual may for various reasons not always be an acceptable choice for a corporate body.

(b) Balance:

There needs to be a balance in utilising the talents of the group or the individual that God has given to each one. A balance also needs to be maintained between sedentary and active games or activities.

(c) Environment:

We need to be sensitive to the weakest within the group and careful to de-emphasize competition so that all may participate and enjoy.

(d) Resources:

What resources are available? Do these have to be purchased or are they readily available? Are the abilities of the group or individual sufficient to carry out the activity planned?

(e) Risk Potential:

Is there a danger physically, spiritually or mentally to those participating.

(f) Legality:

Is it legal? Is there any inherent danger and do any members or participants run any risk? Is the group adequately insured?

(g) Carry-over activity:

What are the far reaching effects of this activity? Should they be carried over to another area or another time - would they still be appropriate? Would the influence in the long term be beneficial to the individual or the church? Does it tend readily toward excess and could it be construed in another time and another place to be detrimental to the individual?

"Guidelines for Choice of Recreational Activities"

- M. Allen

"Biblical Principles on Recreation: South Pacific
Division Recreation Committee, 1983"

SOME SPIRITUAL GUIDELINES FOR CHRISTIAN RECREATION

- 2 Tim. 3:16,17 The Scriptures claim as a source for guidance.
- 2 Peter 3:10-14 Because the time is short we need to exercise every care in our behaviour and daily living.
- Prov. 16:25 Man's power of reason and conscience not always safe guide when determining right and wrong. The test of God's Word only safe way to go.
- 1 Peter 5:8 The need to be constantly alert to the devil's subtleties in all transactions of life. This is a special message to the young. (See verse 5)
- 2 Cor. 6:17 A call from worldly practice and association, to avoid anything that corrupts.
- 1 Thess. 5:22 Avoid borderlining.
- 2 Tim. 3:4 Pleasures, or sports, or any recreational pursuit, must never crowd God out of first place in our lives. Indeed it should contribute to our commitment to God.
- 1 John 2:15 Any pleasure that leads to a love of worldliness (that is, anything that takes away my desire and love for God) is to be avoided.
- Phil. 4:8 This verse presents a very effective measuring rod for testing any recreational pursuit. If it meets this test it is likely to be a very positive activity.
- 1 Cor. 10:31 I must always ask. "Does this activity assist me in honouring and serving God?"
- Prov. 4:23 We need to "guard well the avenues of the soul".
- Matt. 7:13,14 We need to face the fact that God's way is the "narrow and straight way" and calls for the utmost diligence when discriminating between acceptable and non-acceptable activities.
- Rom. 12:1,2 God's call for us to give Him the best - to be separated unto Him.
- Further, we must not let the world squeeze us into its mould.

ADDITIONAL RESOURCE MATERIAL

1. Spirit of Prophecy - Recreation
2. Recreational Plans - Conference Youth Department
3. AY leaflet III - Conference Youth Department
4. Notes - Conference Youth Department
5. See Manual Appendix - "Outline on Recreation Guidelines"
"Should I do This?"
"Test of Recreation"

EVALUATION

Upon submission and approval, District Director signs Pathfinder Leadership Record Book.

REQUIREMENT 1B

Create and demonstrate at least one game to fulfill a Pathfinder class requirement.

OBJECTIVE

To stimulate the participant's sense of creativity and to make practical application of that creativity.

EXPLANATION

If the participant is teaching a class, the person should be encouraged to work on a requirement in the class being taught. If the participant is a Director or Deputy then a choice of class may be allowed, but the easiest requirement should not be chosen.

Careful planning should motivate the participant, not to merely demonstrate an idea to the instructor, but actually substantiate the idea in a practical way in the club where valid assessment should be made.

RESOURCE - Suggested Areas

- | | |
|-----------|---|
| Friends | Bible Search 1-4
Health and Fitness 2
Nature Study 1,3
Camping 1,3,5,6 |
| Companion | Bible Search 1-4
Health and Fitness 1,3
Nature Study 1,3
Camping and Survival Skills 1-4 |
| Explorer | Bible Search 1,2,5
Health & Fitness 1(a)
Nature Study 1
Camping & Survival Skills 2,4 |

- Ranger - Spiritual Discovery 1-4
Health and Fitness 1,2
Outdoor Living 2,4
- Voyager - Spiritual Discovery 1-4
Historical Perspective 1
Outdoor Living 3
- Guide - Spiritual Discovery 1-4
Historical Perspective 1
Outdoor Living 3,5

ADDITIONAL RESOURCE MATERIAL

1. Local Conference Seminar on Recreation
2. How to think like a Genius - M. LeBourf (Reader's Digest
Nov. '84)
3. Creative Ways to Bible Study - J. Mallison

EVALUATION

Submit to the District Director or Conference Youth Ministries personnel, a brief explanation of the game, stating what class requirement is fulfilled. This submission should show the date and place the activity was carried out and be signed by the Club Director. The District Director or Conference Youth Ministries personnel will sign the Pathfinder Leadership Record Book.

- OR -

REQUIREMENT 2

- (a) Write a philosophy on recreation AND
- (b) Develop a recreational program as part of your own lifestyle.

REQUIREMENT 2A

Write a philosophy on recreation.

OBJECTIVE

To bring to the participant an awareness of the reasons for his or her choice of and attitudes to recreation.

EXPLANATION

This statement should be two pages in length and should be the participant's personal statement, not just a copy from resource materials.

RESOURCEMinistry of Church Recreation

Too often church recreation in S.D.A. thinking is limited to one or two activities. Let us share some exciting concepts about the purpose and place of a recreation ministry within the church.

1. The Church Recreational Ministry as a Channel of Service and Support

Spiritual needs are inseparable from the physical and social needs. Christian recreation will support the spiritual dynamic as you seek to win and hold the youth to a committed life.

2. The Church Recreational Ministry as a Catalyst in Outreach

People involved in similar recreation interests have common ground, upon which a witness may be based.

3. The Church Recreational Ministry as a Vehicle for Ministry and Mission Action

Skills among the church members that can be channelled into a service that would provide for (uncommitted) persons who were unable to care for their own needs.

4. The Church Recreational Ministry as a Tool for Teaching

There are many avenues for special recreational clubs in arts and crafts that open the way for teaching and for Christian development.

5. The Church Recreational Ministry as an Aid to Worship.

Many opportunities are possible for "worship" to occur as an integral part of the recreational activities themselves. Worship is a personal encounter with God, a conscious entrance into His presence. Camping and outdoor experiences, while including both fun and games, also provide opportunities to worship.

6. The Church Recreational Ministry as an Environment for Fellowship

Our church fellowship should be more than the Sabbath day associations. It should involve a program that encourages recreational activities as a means of developing fellowship within its membership.

7. The Church Recreational Ministry as an Avenue to Abundant Living

To a church that has a vital health message for the world, this last point is obvious. A healthy body will help towards a healthy mind. The Christian experience will be enriched as the church involves itself in a wholistic ministry which includes a strong recreational ministry.

SUMMARY

Church recreation is more than team sports.

- A. Social recreational activities include: parties, banquets, fellowships, breakfasts, picnics and receptions.
- B. Sports and Games can be categorised as:
 - 1. Team sports: soccer, softball, cricket, basketball, volley ball.
 - 2. Lifetime Sports: cycling, sailing, golf etc.
 - 3. Individual sports: fishing, gymnastics, skiing, surfing.
 - 4. Dual sports: tennis, badminton etc.
 - 5. Games would include the many different types of table games, indoor and outdoor games, and novelty sports.
- C. Drama - story telling, creative dramatics, tableau, monologues.
- D. Camping - day camping, wilderness camping, travel camping, family camping.
- E. Retreats - leadership type, age groups, special emphasis.
- F. Physical Fitness - to help church members maintain good health and fitness.
- G. Therapeutic Recreation - The provision of leisure ministries to persons of special need: blind, deaf, handicapped, etc.
- H. Arts, Crafts - Hobbies - No limit to what could be introduced.

- L.A. Lansdown -

VALUES OF CHRISTIAN RECREATION

- 1. Christian Recreation helps the church minister to the whole young person.
Spiritual, social, emotional, physical.
- 2. Christian recreation helps to build fellowship through various types of recreation.
 - Drama: One-act plays, monologues, puppets, speech choirs, storytelling, role playing.
 - Social: banquets, parties and fellowships
 - Camping:
 - Music: singing and making music.
 - Sport:

3. Christian Recreation should be a means of reaching young people and drawing them into the ministries of the church.
4. Christian Recreation should help educate young people as to the most meaningful, satisfactory, and effective ways for them to use their leisure time.
5. Christian Recreation should offer young people the opportunity to develop creative powers and talents.
6. Christian Recreation should serve as a levelling agent in breaking down economic and social barriers within the church congregation and youth community.
7. Christian Recreation should strengthen the family unit through activities that stimulate family togetherness, teamwork, and shared leisure time experience.

RECREATION - MEETING LIFE NEEDS OF YOUTH HEAD ON

- I Youth have a need for a foundation upon which they can base their lives.
- II Youth have a need to be loved; to know that someone cares.
- III Youth have a need to feel accepted; to be a part of the group.
- IV Youth have a need to accept and relate to the sexual roles of male and female.
- V Youth have a need to understand the role of authority and parental guidance.
- VI Youth have a need to accept themselves in relationship to their talents, personal worth, and ability to their peer group.

CHRISTIAN PHILOSOPHY OF SPORTS AND GAMES

In planning and operating a church sports program, the Director must be very careful to keep his or her eye on the ultimate goals and objectives to be reached.

- I Remember that the individual team member is a person, who has desires, who experiences hurt, and who is still learning, growing and experiencing new things. All participants do not have a need to play an equal amount of time but everyone wants to see action.
- II Strive to help all individuals to grow together in fellowship, appreciation, teamwork, and sportsmanship. The volleyball court or softball field is often the place where the Christian lifestyle gets its most severe test. To be able to compete, to win, to lose with dignity is a very worthy goal.
- III Put a premium on participation. However, doing your best is a worthy goal too. Every Christian sports program should emphasize that winning that costs a sacrifice of personal values or by breaking the rules is just not worth it.

Recreation cont.

- IV Church sports programs should add to rather than take away from the total youth ministry of the church. Young people who participate in the sports programs of youth ministry should be urged to attend the Bible study and social activities too.
- V Urge coaches to use this time to share a Christian witness at appropriate times throughout the season - the teachable moment when the team members are ready to learn.

ADDITIONAL SOURCE MATERIAL

South Pacific Division Committee on Recreation 1983.
 Recreational Plans - General Conference Youth Department
 "Made for Action" AY Leaflet III

EVALUATION

Submit statement of philosophy to District Director or Conference Youth Ministries personnel for approval on signing of Pathfinder Leadership Record Book.

REQUIREMENT 2B

Develop a Recreational program as part of your own lifestyle.

OBJECTIVE

To encourage the participant to take an active interest in some form of recreation as a life interest for both physical and mental health.

EXPLANATION

The participant is to make a personal choice of some form of recreation that is in harmony with the Adventist philosophy of recreation, and implement the program for at least three months and supply details to your District Director. It may be sport such as tennis, squash or cricket. On the other hand the person might join a club or society such as photography or drama. The choice may be to go camping or orienteering or taking up a hobby like pottery, cane work or mechanics.

The participant needs to have reasons for the choice and be aware of reasons for personal preference.

Where exercises are chosen, the District Director should seek an assessment of the progress in physical fitness made by the participant. 43

If a hobby is chosen then the articles or photographs etc., should be shown to the District Director for assessment.

Written reports should be given on camping and orienteering types of recreation.

SOURCE MATERIAL

1. Local Conference Seminar on Recreation
2. 10 Bx Program
3. Duke of Edinburgh Award Manual
4. "Measure Your Own Physical Quotation" - Judson Gooding
Nov. 1976 Readers Digest.

EVALUATION

District Director, when satisfied requirement is fulfilled, signs Pathfinder Leadership Record Book.

