



PATHFINDER CLUB

EXPLORER

PROJECT BOOK

PATHFINDER: _____

TEACHER: _____

PATHFINDER CLUB

EXPLORER

WORK BOOK

PATHFINDER NAME _____

TEACHER _____

YEAR _____

EXPLORER REQUIREMENTS

HALL ACTIVITIES

page **Req** DATE SIGNATURE

- | | | |
|----|----|--|
| 6 | 1. | Be able to identify <i>Achernar</i> , the <i>Southern Cross</i> , the <i>Pointers</i> , and <i>Orion</i> .
Know the significance of <i>Orion</i> as told in the <i>Early Writings</i> . |
| 8 | 2. | View an audio/visual or participate in a discussion on the physical effects of the DRUG ALCOHOL on the body. Write and sign a pledge card choosing a life style free from alcohol. |
| 12 | 3. | Identify three planets, five stars, and five constellations. |
| 16 | 4. | Complete one of the following honours: <i>Birds</i> , <i>Amphibians</i> , <i>Flowers</i> , <i>Stars</i> or <i>Weather</i> . |

The Honour that I completed was: _____

- | | | |
|----|----|--|
| 23 | 5. | Review the points of a good campsite. |
| 24 | 6. | Pass a test in Explorer First Aid. |
| 27 | 7. | Complete one recreational honour not previously earn't, or one nature honour in addition to Requirement 4. |

The Honour that I completed was: _____

- | | | |
|----|-----|---|
| 30 | 8. | Review the Friend and Companion knots and learn the <i>Tape Knot</i> . |
| 32 | 9. | Plan a menu for a three day camping trip for four people. |
| 33 | 10. | Have a basic knowledge of the use of a two way radio. |
| 35 | 11. | Complete <i>Section 2-The Compass</i> of the "Map and Compass" honour.. |

EXPLORER REQUIREMENTS

3

CAMPOUT ACTIVITIES

page	Req	DATE	SIGNATURE
40	12.		Hike 16kms and keep a log.
41			Backpack Checklist
42	13.		Identify 6 tracks of animals or birds. Make a plaster cast of two tracks.
44	14.		Plan and cook two camp meals.
45	15.		Review the four basic lashings and build one article of camp furniture.
46	16.		Complete <i>Section 4-Practical</i> of the "Map and Compass" honour.
47	17.		Read the gospel of John in any translation and discuss in your group any one of the following; John 13: 12-17 Humility John 14: 1-3 Lord's Promise John 15: 5-8 Vine and Branches
48	18.		Understand and be able to explain the meaning of : Proverbs 20: 1 and Proverbs 23: 29-32
49	19.		Become familiar with the use of a Concordance
50	20.		Have <i>two</i> current memory gem certificates.
52	21.		Participate in a club presentation on one topic in each of the following groups. Church Heritage _____ Camping _____ Flag and Anthems _____ Health _____
53	22.		Be invested for EXPLORER.

ADVANCED EXPLORER REQUIREMENTS

page **Req** DATE SIGNATURE

Be invested for **EXPLORER**.

55 **23.** Participate in **ALL** club required community service projects for one year.

56 **24.** Commit to memory any one of the following, in any translation:
John 13: 12-17 Humility
John 14: 1-3 Lord's Promise
John 15: 5-8 Vine and Branches

57 **25.** Make two additional plaster casts of birds or animal tracks.(see requirement 13)

57 **26.** Complete one additional honour not previously earned.

The Honour that I completed was: _____

58 **27.** Attend at least **two** conference events.

I attended: 1. _____
2. _____

59 Honours for Requirement 4

64 Notes

PLEDGE and LAW

PATHFINDER PLEDGE

LOVING THE LORD MY GOD

I WILL

DAILY SEEK HIS PRESENCE

SHOW FRIENDSHIP TO OTHERS

KEEP THE PATHFINDER LAW

PATHFINDER LAW

THE PATHFINDER LAW

IS FOR ME TO

LOOK FOR THE GOOD IN OTHERS

AIM TO DO MY BEST

LOVE AND RESPECT MY FAMILY

BE THANKFUL FOR WHAT I HAVE

PRESERVE GOD'S CREATION

TAKE CARE OF MY HEALTH

BE INVOLVED IN MY CHURCH

AND GO WHERE HE SENDS

EXPLORER REQUIREMENT 1

JESUS

SHALL COME FROM

ORION

EARLY WRITINGS

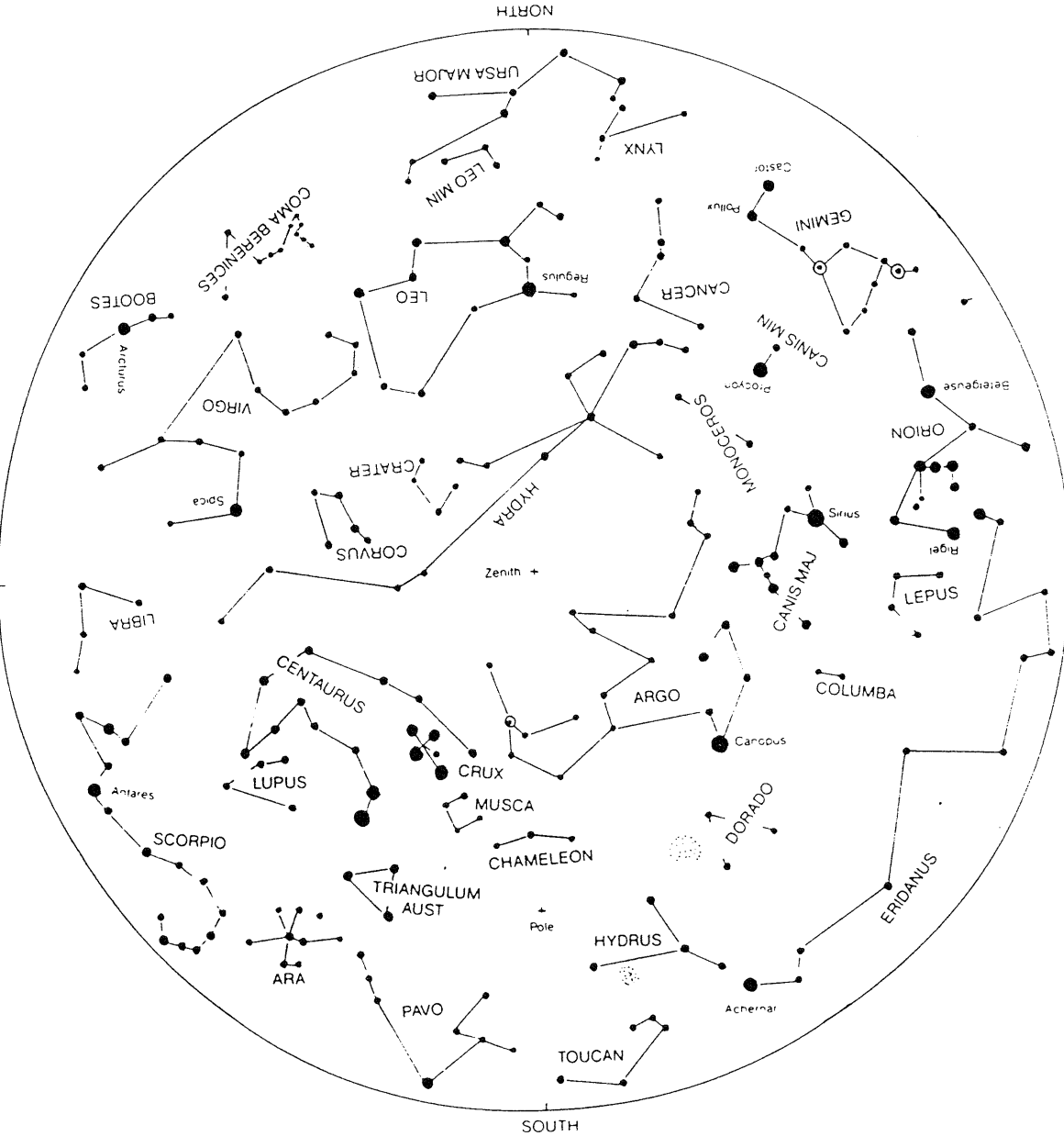
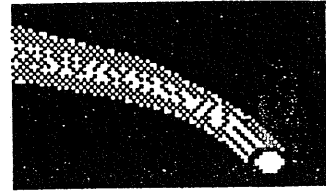
of
ELLEN G WHITE

*SHAKING OF THE POWERS
OF HEAVEN*
(page 41)

December the 16, 1848, the Lord gave me a view of the shaking of the powers of the heavens. I saw that when the Lord said "heaven," in giving the signs recorded by Matthew, Mark and Luke, He meant heaven, and when He said "earth" He meant earth. The powers of heaven are the sun, moon and stars. They rule in the heavens. The powers of earth are those that rule on the earth. The powers of heaven will be shaken at the voice of God. Then the sun, moon and stars will be moved out of their places. They will not pass away, but be shaken by the voice of God. Dark heavy clouds came up and clashed against each other. The atmosphere parted and rolled back: then we could look up through the open space in Orion, whence came the voice of God. The Holy City will come down through that open space. I saw that the powers of earth are now being shaken and that events come in order. War, and rumors of war, sword, famine and pestilence are the first to shake the powers of the earth, then the voice of God will shake the sun, moon and stars and this earth also. I saw that the shaking of the powers in Europe is not, as some teach, the shaking of the powers of heaven, but it is the shaking of the angry nations.



STARS



STAR GROUPS FOR APRIL AND MAY

Early April	9 pm	Early May	7 pm
Late April	8 pm	Late May	6 pm

Highlight the following stars or star groups (constellations) on the above star chart.
ACHERNAR, the POINTERS, the SOUTHERN CROSS and ORION.

EXPLORER REQUIREMENT 2



THE DRUG ALCOHOL



QUIZ ON THE MYTHS AND FACTS CONCERNING ALCOHOL

(tick the correct answer)

- | | | | |
|-----|--|------|------|
| 1. | Alcohol is a stimulant. | Myth | Fact |
| 2. | Alcohol increases confidence but decreases judgment. | Myth | Fact |
| 3. | Alcohol warms the body. | Myth | Fact |
| 4. | Drinking beer won't cause you to be an alcoholic. | Myth | Fact |
| 5. | Alcoholics drink every day. | Myth | Fact |
| 6. | Alcohol cures colds. | Myth | Fact |
| 7. | Drinking coffee, having a cold shower, fresh air, etc. will quickly make a drunk person sober. | Myth | Fact |
| 8. | Alcoholics can be found among all classes of people. | Myth | Fact |
| 9. | Alcohol only affects people with no will power. | Myth | Fact |
| 10. | Women don't become alcoholics. | Myth | Fact |
| 11. | Alcohol destroys the cells in the liver. | Myth | Fact |
| 12. | 95% of alcohol taken into the body is absorbed into the blood stream through the intestines. | Myth | Fact |
| 13. | Alcohol irritates the kidneys causing an increased loss of fluid. | Myth | Fact |
| 14. | Alcohol causes inflammation of the heart muscle. | Myth | Fact |
| 15. | Alcohol kills brain cells and these are never replaced. | Myth | Fact |
| 16. | Alcohol can close down the brain, the computer of our body. | Myth | Fact |

(answers at the back of the book)



MY TEMPERANCE PLEDGE

DATE:

SIGNATURE:

DANIEL 1: 8

But Daniel resolved not to defile himself with the royal food and *wine*, and he asked the chief official for permission not to defile himself this way

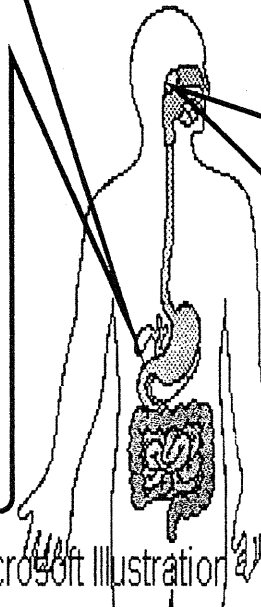
THE EFFECTS OF THE DRUG ALCOHOL ON OUR BODIES

STOMACH

The outer surface of the stomach is folded into numerous complex ridges, which help in mixing food with digestive juices. Only water alcohol and some drugs seem to be absorbed from the stomach.

ALCOHOL

has an irritating effect on the stomach's protective lining resulting in gastric & duodenal ulcers. In the small intestine alcohol blocks the absorption of important vitamins and minerals.



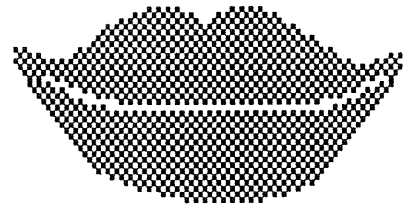
Microsoft Illustration

MOUTH

In humans the mouth is an integral part of digestion, speech and respiration.

ALCOHOL

is an irritant to the delicate lining of the throat & esophagus It burns as it goes down



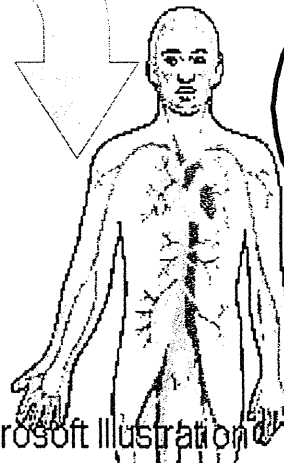
BLOODSTREAM

It takes about thirty seconds for a given portion of blood to complete its course of circulation around our bodies

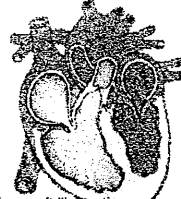
ALCOHOL

causes red blood cells to clump together in sticky wads, slowing down circulation and depriving tissues of oxygen. This slows production of red blood cells causing anemia. It slows down the ability of white cells to engulf and destroy bacteria.

Ninety-five percent of the alcohol taken into the body is absorbed into the bloodstream through the stomach and duodenum.



Microsoft Illustration



Microsoft Illustration

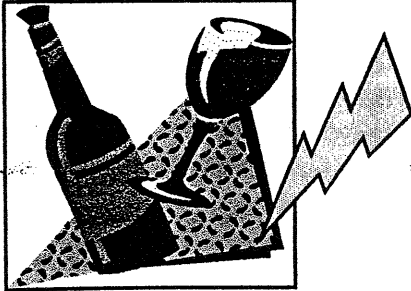
HEART
OUR LIFE PUMP

ALCOHOL

causes inflammation of the heart muscle. Alcohol has a toxic effect and causes increased amounts of fat to collect. The heart pumps the alcohol laden blood to all other parts of the body including the brain Alcohol kills brain cells. These cannot be replaced.



THE EFFECTS OF THE DRUG ALCOHOL ON OUR BODIES



LIVER

Blood passes through the liver at a rate of 1.4 litres per minute. At any one instant the liver contains about 10% of the blood in the body.

ALCOHOL inflames the cells of the liver, causing them to swell and block the tiny canal to the small intestines. This prevents the bile being filtered properly through the liver. Jaundice develops, turning the whites of the eyes and the skin yellow.

EVERY DRINK OF ALCOHOL increases the number of liver cells destroyed, eventually causing cirrhosis of the liver



PANCREAS

ALCOHOL causes the cells of the pancreas to swell and block the flow of digestive enzymes. These enzymes, begin to digest the pancreas, leading to acute hemorrhagic pancreatitis. One out of every five people who develop this disease, die during the first attack. Diabetes can result from pancreatitis.

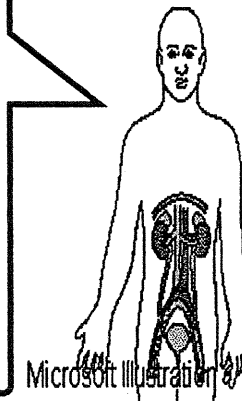
KIDNEYS & BLADDER

ALCOHOL

** Irritates the lining of the bladder preventing it from stretching properly.*

*

**It irritates the kidneys causing an increase loss in fluid.*



Microsoft Illustration



Copyright Microsoft

ALCOHOL causes loss of memory



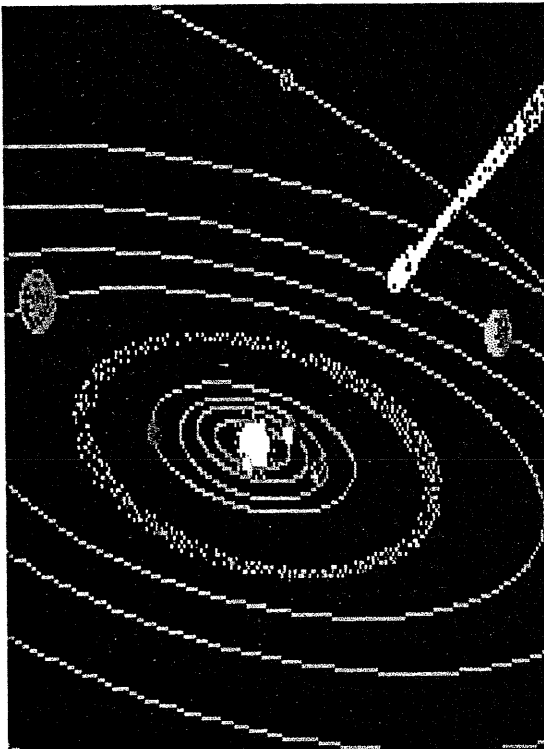
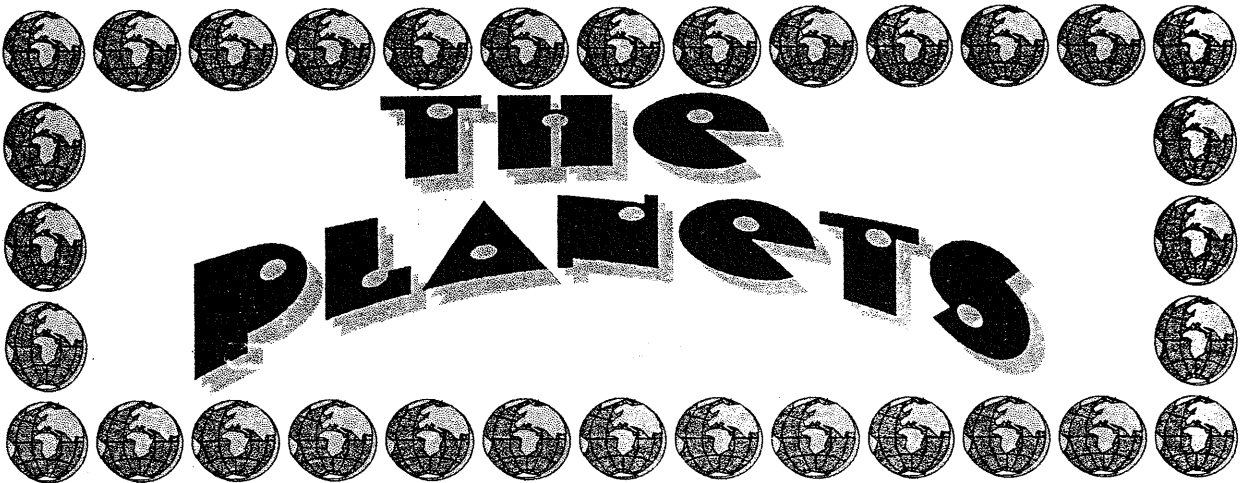
Deep inside the brain Alcohol can affect the areas that control
 *aggression**hunger*thirst**
pleasure*pain*temperature
sexual activity

BRAIN

ALCOHOL CAN CLOSE DOWN THE BRAIN

The brain is a living computer made up of millions of nerve cells. Alcohol can change communication patterns throughout the brain:

- *disturbing vision*
- *distort hearing*
- *muddle speech*
- *impair judgement*
- *dull senses*
- *disturb motor skills*
- *reduce co-ordination*



MICROSOFT - ENCARTA

Our God Is An Awesome God

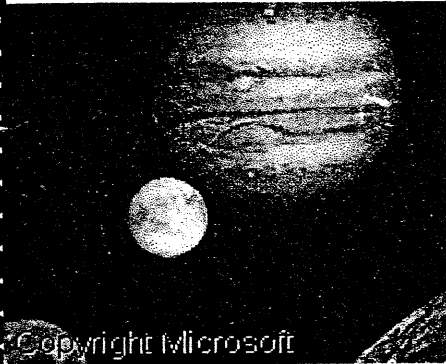
Our solar system is part of the vastness of the universe. Everything in creation has a wonderful order and beauty. Our earth is just a tiny pinprick of light from outer space. Yet God cares for us and our earth and our solar system, and the whole of the universe out there further than the eye can see or even imagine. Our God is a God of Wonder, Order and Love. Everything is according to the Creator's plan. Our God is a Big God and yet none of our problems are too small for him to listen to and help us solve. The planets in our Solar System are: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus,

Mercury orbits closer to the sun than any other planet, making it dry, hot, and virtually airless. The planet's cratered surface resembles that of the moon.

Venus is the brightest object in our sky, after the sun and moon. Swirling clouds of sulfur and sulfuric acid and a deep atmosphere obscure the planet's surface. Space vehicles, outfitted with probes, determined that Venus is the hottest of the planets, with a surface temperature of about 462° C (864° F)

Earth has an oxygen-rich and protective atmosphere, moderate temperatures, abundant water, and a varied chemical composition which allow earth to support life, *the only planet to do so.*

Mars Unpiloted spacecraft from the United States, have supplied the most detailed information on Mars. Due to the thinness of the atmosphere, daily temperatures often vary as much as 100° C (180° F). In general, surface temperatures are too cold and surface pressures too low for water to exist in a liquid state on Mars, so the planet resembles a cold, high-altitude desert.



Jupiter is the largest of the planets, with a volume 1400 times greater than that of the earth. Jupiter's colorful bands are caused by strong atmospheric currents and accentuated by a dense cloud cover. The massive planet, upper right, is shown here with three of its largest sixteen satellites: Europa, center, nearest Jupiter, Callisto lower left, and Ganymede lower right.



Saturn, distinguished by its rings, ranks as the second largest planet in the solar system. In 1610 the Italian physicist and astronomer Galileo discovered the ring system using one of the first telescopes ever made. The Hubble Space Telescope obtained this image of Saturn on August 26, 1990.

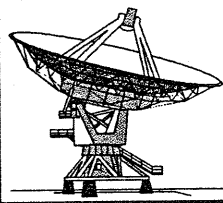
Uranus's blue-green color comes from the methane gas present in its cold, clear atmosphere. Uranus' northern hemisphere remains in perpetual darkness because of the way the planet rotates.

Neptune: scattered sunlight from a haze around the planet, and high-level clouds reflect sunlight above the atmosphere. Three dark rings encircle the planet and its moon Triton is the coldest body in the solar system with a surface of pink snow caps and erupting geysers.

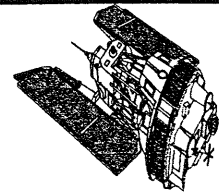
Pluto is farther from the sun than the other planets in the solar system, although it occasionally moves in closer than Neptune due to an irregular orbit. The small, rocky, and cold planet takes 247.7 years to revolve around the sun. Charon, discovered in 1978 is a moon and the two can be considered as a double planet.

I can identify the following three planets: _____

Signed: _____ Date _____



STARS & CONSTELLATIONS



Using the chart on page 7 as a rough guide try to find the following stars and constellations.

The bright stars should be seen without trouble, given a clear night, but the fainter stars and the Milky Way need a moonless night and preferably at least 10 minutes dark adaptation of the eyes.

(A Star Chart for Australian Observers by W J Newell-Jacaranda Press - is an excellent aid)

Night Sky in March

Gemini occupies the far Northern sky, with *Procyon* of the lesser dog above. Almost overhead is the *Greater Dog, Canis Major*; with that blue jewel of the Autumn skies, *Sirrus*, twinkling alongside the *Milky Way*. Further South is *Canopus*, the second brightest star in the heavens, in the constellation of *Carina*, near *Argo*. Below and to the east of *Canopus* are the four stars, commonly mistaken for the *Southern Cross*.

The *Southern Cross* (or *Crux* as it is marked) lies, on its side, somewhat closer to the south-eastern horizon. Below *Crux* are the Pointers, *alpha and beta Centauri*. Alpha is one of the closest stars to our solar system, and a small telescope shows it to be a wide double.

High in the North-West is mighty *Orion* the Hunter, shown in old star maps as brandishing a great club at *Taurus* the Bull (not shown on chart), which is much nearer the North-Western horizon.

Over in the North-East is *Leo*, a constellation which if you stand on your head, really looks like a crouching lion!!!! The white star *Regulus* is in the handle of the "sickle", a clearly defined "Asterism" or group of stars. Just above the eastern horizon is *Virgo*.

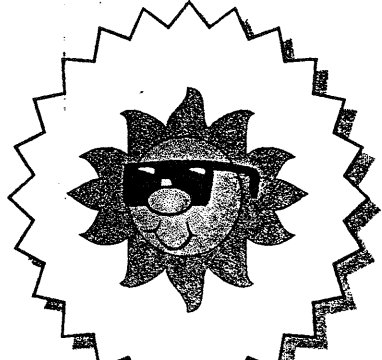
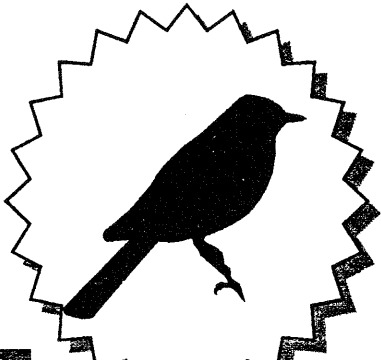
Night Sky in June

Canis Major, one of *Orion's* hunting dogs, is setting towards the Western horizon. *Sirrus*, the brightest star in the sky, is also known as *The Dog Star*. *Procyon* is a bright star in the constellation of *Canis Minor*, or lesser dog.

Leo and Virgo, two constellations are prominent in the Northern sky, with the orange star *Arcturus* below, closer to the north-east horizon in *Bootes*. High in the south flies the *Southern Cross or Crux*, approaching the highest point in its swing around the south celestial pole. Just below the cross is a dark "hole" in the *Milky Way*, known as the "coal sack". It is really a patch of gas and light obscuring the light of the stars behind it.

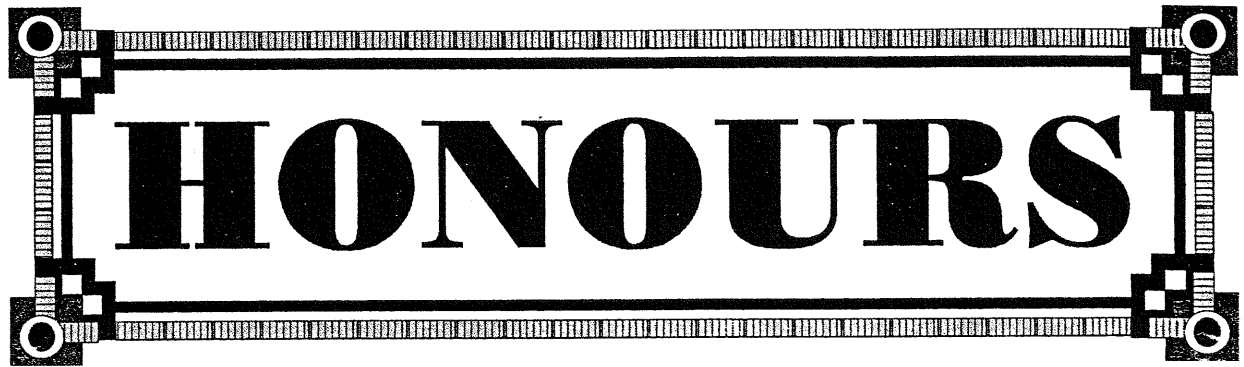
The pointers east of the *Cross*, lie at the start of a great rift in the *Milky Way* that stretches through *Scorpio* and as far north as *Cygnus* (not shown on chart) Again this is due to obscuring matter, not an absence of stars. *Scorpio*, complete with "sting" is now well up in the east.

The brightest part of the *Milky Way* lies in this part of the sky, and when observed clear of artificial light appears as a broad misty band of light, speckled with groups of stars and patches of glowing gas.

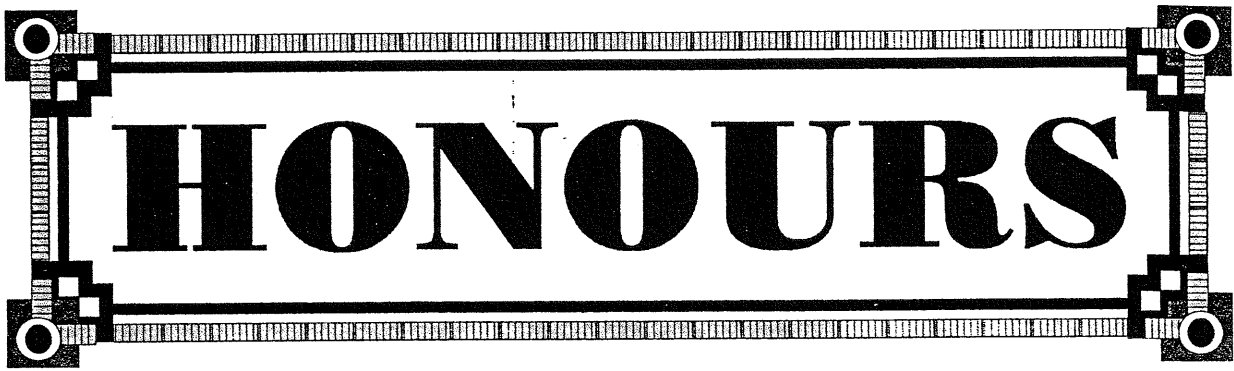


I HAVE COMPLETED ONE
OF THE FOLLOWING
HONOURS

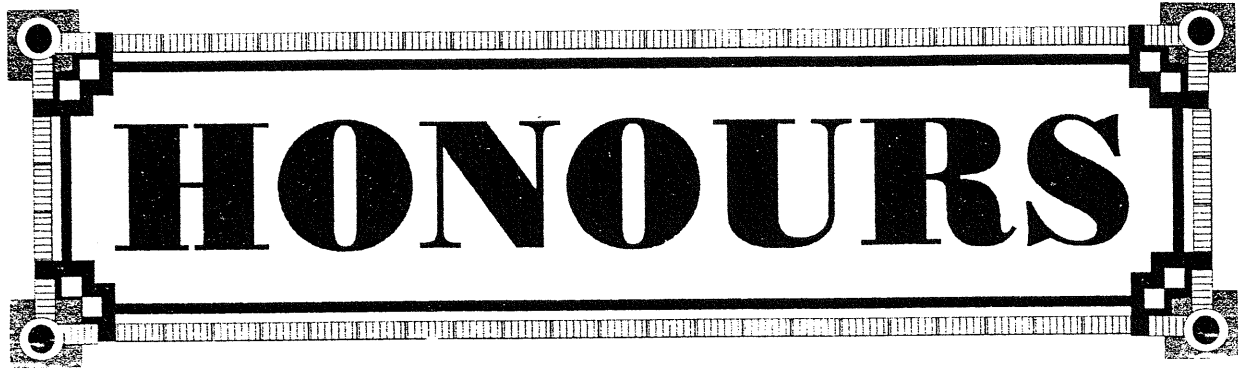
<i>HONOUR</i>	<i>DATE</i>	<i>SIGNED</i>
<i>AMPHIBIANS</i>		
<i>FLOWERS</i>		
<i>STARS</i>		
<i>BIRDS</i>		
<i>WEATHER</i>		

A decorative rectangular border with a textured, stippled appearance. The border is composed of four thick, parallel lines forming a frame. At each of the four corners, there is a small square element containing a white circle. The word "HONOURS" is centered within this frame in a large, bold, black, serif font.

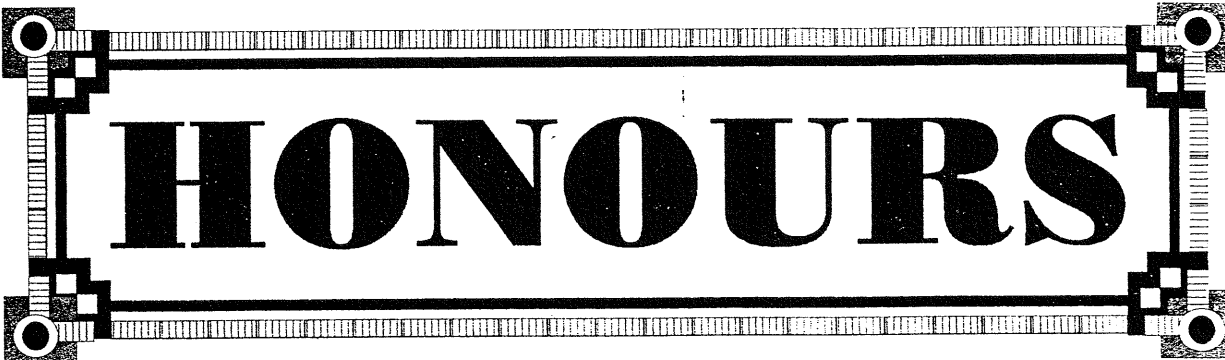
HONOURS

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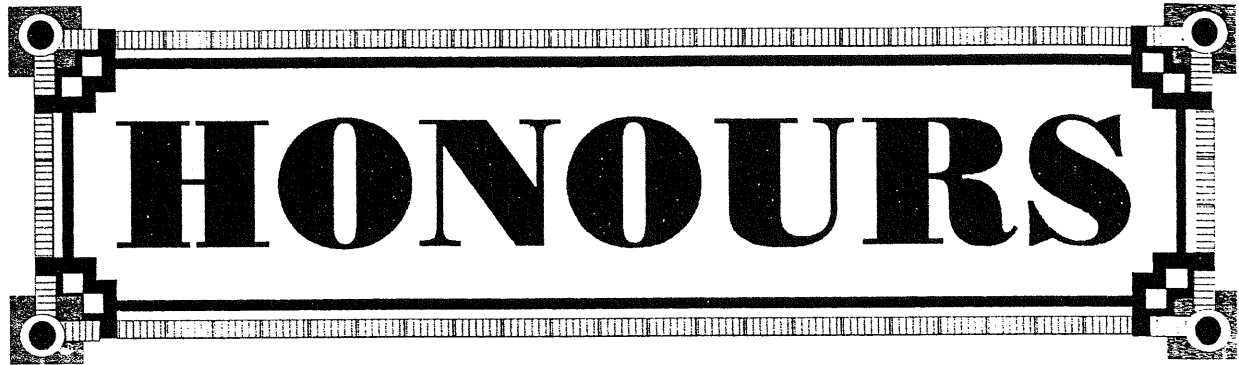
HONOURS

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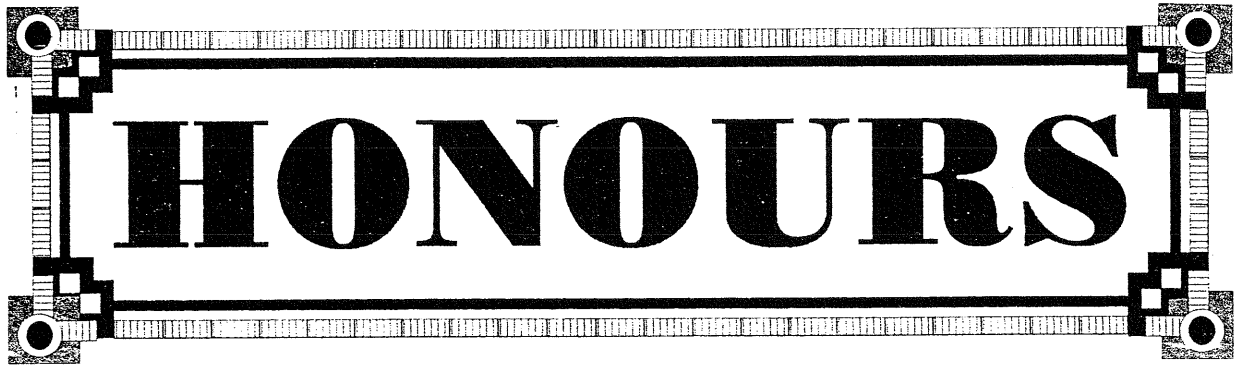
HONOURS



HONOURS



HONOURS

A decorative rectangular border with a textured, stippled appearance. The border is composed of four thick black lines forming a frame. At each of the four corners, there is a small square element containing a white circle. The word "HONOURS" is centered within this frame in a large, bold, black, serif font.

HONOURS

REVIEW THE POINTS OF A GOOD CAMPSITE



(SEE REQUIREMENT 6 IN COMPANION)

1. Choose well drained level ground.
2. Choose a dry area and use a groundsheet to prevent the warmth of your body bringing up moisture from the ground.
3. Stay away from mosquito infested swamps.
4. Never camp under an overhanging cliff. There is a chance of landslides and falling rocks.
5. Never camp under trees with large dead branches which might break off in a wind.
6. Pick a warm area. Remember that water and cold air run downhill and warm air rises uphill! Thus a hilltop is warmer and drier and has breezes to keep away mosquitoes. A basin is colder, damp and fog will gather and frost will form, also it will be flooded in heavy rain.
7. Hard, rocky, dusty terrain makes a poor campsite.
8. Pitch your tent towards the north-east so the morning sun will help keep it dry.
9. If there is a prevailing wind pitch your tent with the door away from the wind.
10. A plentiful wood supply is important.
11. Pick a site where plenty of *SAFE* drinking water is available.



I can list at least 6 points for choosing a good, safe campsite.

Date:

Teacher's Signature:

PASS A TEST IN EXPLORER FIRST AID

The Effects of Heat on the Body

Sunburn

Caused by long exposure to the sun. In extreme cases superficial burning occurs and in severe cases blisters form. If the patient feels ill medical advice should be sought. Otherwise the treatment is:

- * Apply a cold compress
- * Take cold showers
- * Drink plenty of fluids
- * Do NOT break blisters

More severe complications of heat exposure

Our bodies normally regulate temperature by evaporation of sweat from the skin. Over exposure to heat conditions will result in cramps, heat exhaustion and heat stroke.

Heat Cramps

Signs and Symptoms

Weakness, dizziness and fatigue.

Painful muscle spasms.

Control

Gently stretch affected muscles.

Apply cold packs.

Drink water with added salt

(1 teaspoon per litre of water)

Heat Exhaustion

Signs and Symptoms

Headaches, cramps and sweating.

Rapid pulse and breathing.

Control

Sponge patient with cold water.

Apply ice packs to affected muscles.

Drink water with added salt.(as above)

Heat Stroke (near death)

Signs and symptoms

A very dangerous condition!!!!

No sweat, the body completely dehydrates. Temperature rises quickly.

Vomiting and nausea.

Control

Remove clothing. Wrap in wet sheet.

Cool by any means available.

Place in the recovery position.

All these medical conditions need help as soon as possible.

Burns

These are caused by extreme heat, dry or moist. They are termed first second, or third degree burns according to the extent of tissue damage. Damage to the tissues is indicated by redness, swelling and blistering. Serum is lost into the blood and shock is severe. They are caused by carelessness with chemicals, fire, hot water, sunlight, friction and electricity.

Initial treatment of all burns is IRRIGATE WITH COLD WATER. Do not break blisters, do not apply lotions, ointments or oils. **Medical help must be sought.**

In cases of acid or chemicals: Wash off immediately with cold water and remove contaminated clothing.

PASS A TEST IN EXPLORER FIRST AID

The Effects of Heat on the Body

Unconsciousness

Unconsciousness can vary from a simple stupor (dazed state) to a coma. This can be caused by many things including: a faint, head injury, stroke, heart attack, drugs, drunkenness, fits or diabetes. Because the unconscious person is incapable of any voluntary action, he/she:

- * Must have their airway cleared.
- * Must NOT be given any fluids or anything by mouth.

First place the unconscious person in the recovery position. Make certain you carry out the A.B.C.D. procedure. Try to find the cause of the problem. For example a simple faint may be caused by hunger, fear, emotional shock, injury or prolonged standing. Make certain the clothing at neck, chest and waist has been loosened.

Constrictive and Restrictive Bandages.

It is now accepted that there is no place in first aid for the Arterial tourniquet. Constrictive and restrictive bandages are now used instead. *Constrictive bandages* must only be used in emergencies to control bleeding in amputations and in certain treatments of marine stings. *Restrictive bandages* are the type now used in snake bites. They restrict the flow of poison in the lymph glands and slow down the absorption of the poison into the body. A crepe bandage 75-100 mm wide is best.

Snake Bite

Treat all snake bites as venomous snakes. There may be sweating, drowsiness, fainting, headache, nausea and vomiting, diarrhea and chest and abdominal pains.

- * Keep person as still as possible, splinting the affected limb.
- * Apply a broad firm bandage around the entire limb beginning at the bite..
- * Leave the bandage in position till full medical facilities are reached.
- * Reassure the victim that this will delay the absorption of the venom.

DO NOT incise the wound or bite, DO NOT let the victim walk or run, Do NOT release the bandage!!!

Other Bites and Stings

Red Back Spider Leaves small red mark. Redness spreads to other parts. Perspiration at bitten part which spreads. Symptoms may be nausea, vomiting, dizziness, muscular spasm, profuse sweating and faintness. Treat as for snake bite.

Funnel Web Spider Bites mostly at night. Pain at the bite and spreading. Local muscular twitching. Victim salivates freely and sweats profusely. Spasm of the larynx with difficulty in breathing. Treat as for snake bite.

Ticks usually secrete in body crevices. Paralysis may affect limbs and muscles of respiration and facial muscles. Seek medical help. Remove tick by levering with open scissors or use cotton. Do not squeeze the tick.

Leeches Salt or lighted match will help remove the leech. May bleed freely.

Bee, Hornet and Wasp Stings Remove the sting of bee. Do not squeeze as more venom is injected. Wipe the area clean and apply cold compress and ice.

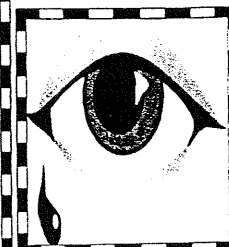
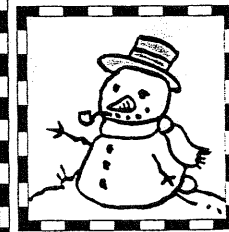
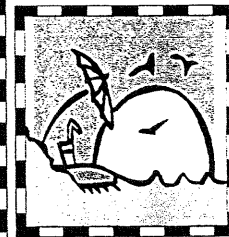
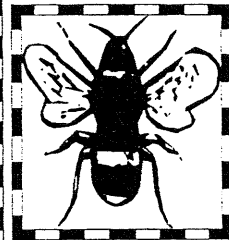
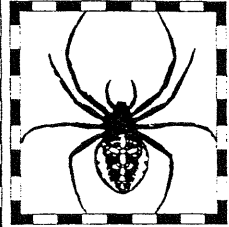
Heat Rash can be relieved by application of ice cold normal saline solution.

Stinging plants(stinging nettle) Wash and apply ice cubes or soothing cream.

Bluebottle. Apply vinegar or meat tenderizer (extract of papaya)

Jellyfish. Excessive stinging may result in cardiac or respiratory failure.

Minor stings give backache, chest pain, vomiting and difficulty in breathing.



PASS A TEST IN EXPLORER FIRST AID

Exposure to Cold Conditions

If the casualty can remain dry than severe conditions can be tolerated, but when cold, wet and windy conditions are experienced, there is danger. Exposure to cold can have the same effect as concussion with all normal activities slowed, slow speech, slow movements, impaired vision, cramps and unreasonable behavior. Pulse rate and respiration rate increases. Protect from cold and keep warm by wrapping in dry clothing or sleeping bag, and if necessity seek medical attention.

Hypothermia

Is a dangerous lowering of the body temperature and can be brought on by cold wet conditions, swimming in water too cold, or going out in cold, wet conditions without an adequate head covering. the elderly and infirm may become unconscious. Treat as for exposure and give warm, sweet drinks if conscious. NEVER USE A HOT WATER BOTTLE.

Minor Frostbite

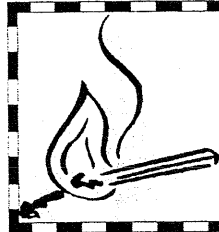
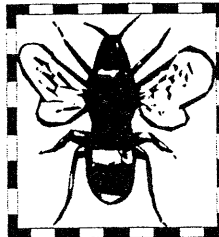
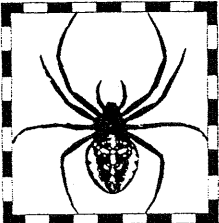
Is when there is superficial damage and pain is severe. Warm the area as quickly as possible by natural means.

Deep Frostbite

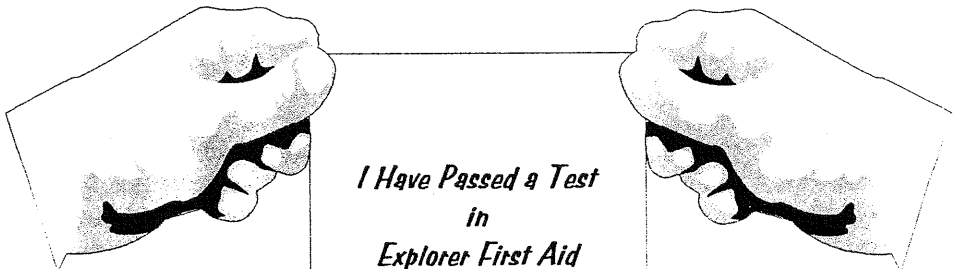
Is when there is deep tissue damage. the area is white, waxy and painless. DO NOT attempt to thaw the area except under medical supervision.

Accidental Immersion in Cold Water

Can be best treated by immersion in a warm bath 42° centigrade, or alternatively allowing the person to warm slowly in a sleeping bag preferably with a warm companion



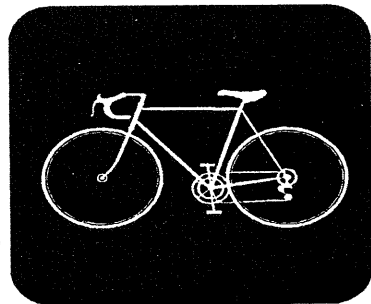
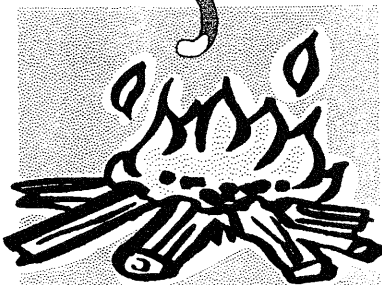
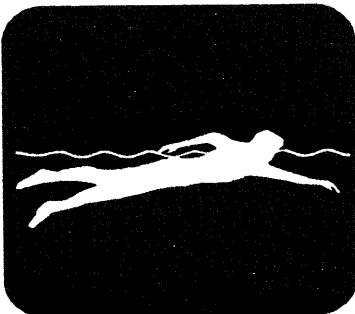
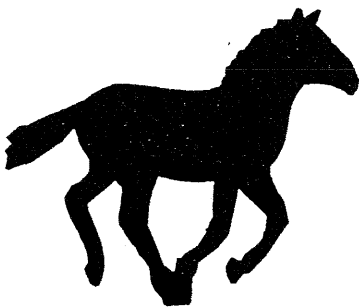
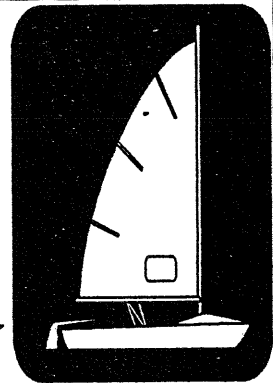
TURN TO PAGE 28 FOR TEST ON EXPLORER FIRST AID



*I Have Passed a Test
in
Explorer First Aid
on*

Supervisor's Signature

Complete one Recreational Honour
not previously earned
or
Complete one Nature Honour
in addition to Requirement 4



I Have completed the following Honour _____

Date _____ Supervisor's Signature _____

FIRST AID TEST



1. How do you treat an acid or chemical burn and what do you do with contaminated clothing?

2. What is the name of a very tight bandage used only in special cases such as amputation or certain marine stings?

3. Why should and unconscious person always be placed in the recovery position?

4. The special signs of a funnel web spider bite are _____

5. The correct treatment for a funnel web bite is _____

6. What would you consider is the best treatment for each of the following.
 - a) Heat rash _____
 - b) Blue bottle sting _____
 - c) Leech bite _____
 - d) Stinging nettle _____
 - e) Bee sting _____
 - f) Minor frostbite _____
 - g) Major frostbite _____
 - h) Accidental Immersion in ice cold water __________

FIRST AID TEST



7. Prolonged exposure to the sun should be avoided. If sunburn occurs then bad cases should be treated by the doctor. Mild cases can be treated in the following manner.
- i) _____ ii) _____
 iii) _____ iv) _____
8. Prolonged exposure to heat or even short exposure to intense heat can produce violent body reaction. The first simple reaction is heat cramps. The person becomes dizzy, weak and has painful muscle spasms. This is best treated by i) _____
 ii) _____
 iii) _____
9. Over exposure to heat can lead to heat exhaustion or heat stroke. This is very dangerous. How do you control heat stroke? List three ways..
- i) _____
 ii) _____
 iii) _____
10. Complete the following statement:
 The initial treatment of all burns is _____



FRIEND AND COMPANION KNOTS REVIEWED

FRIEND KNOTS

1 OVERHAND

Date.....Signature.....

2 SQUARE or REEF

Date.....Signature.....

3 GRANNY

Date.....Signature.....

4 BOWLINE

Date.....Signature.....

5 TWO HALF HITCHES

Date.....Signature.....

6 CLOVE HITCH

Date.....Signature.....

7 FIGURE EIGHT

Date.....Signature.....

8 DOUBLE BOW

Date.....Signature.....

9 SLIP KNOT

Date.....Signature.....

COMPANION KNOTS

1 SHEET BEND

Date.....Signature.....

2 TIMBER HITCH

Date.....Signature.....

3 SHEEPHANK

Date.....Signature.....

4 FISHERMAN'S KNOT

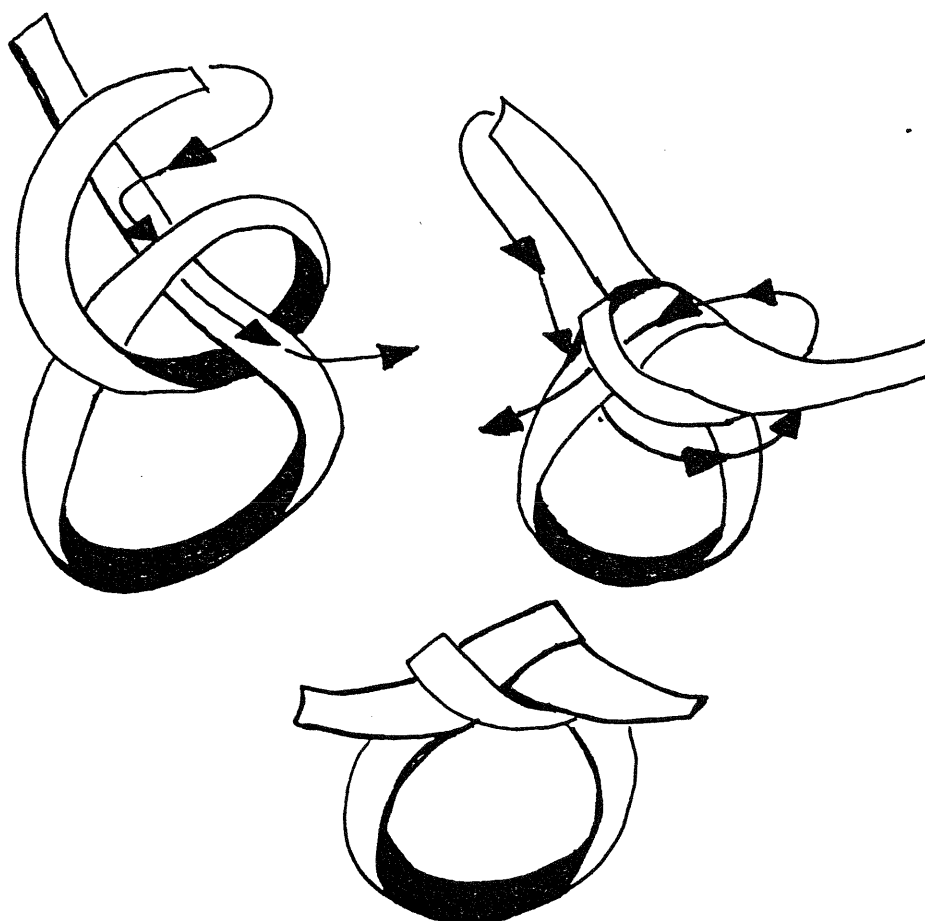
Date.....Signature.....

5 TAUT LINE HITCH

Date.....Signature.....

KNOTS

Tie and know the practical use of the TAPE KNOT

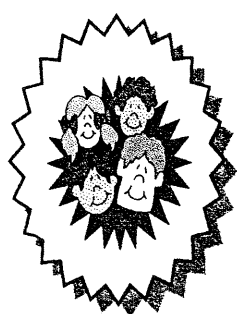


Breaking Strain of Tape is Reduced 30%

I can tie the Tape Knot

Date

Instructor's Signature



PLAN A MENU FOR A 3 DAY CAMPING TRIP FOR FOUR PEOPLE



The use of dehydrated food will require some experience. It is a good idea to practice at home, preparing a meal you would like to use on the camp. There are many dehydrated foods available, such as: powdered milk, potatoes, eggs, various vegetables, instant foods like rice and soup and noodles and so on.

Firstly we need to determine the number of meals, for example if we arrive on Thursday afternoon, camp out for Friday, Sabbath and finish Sunday afternoon, we will need the following meals.

Thursday: Tea (possibly a pre packed tea of sandwiches, fruit, and a warm drink)

Friday:	Breakfast	Sabbath:	Breakfast	Sunday:	Breakfast
	Lunch		Lunch		Lunch
	Tea		Tea		(travel home)

From this we can see that we have nine meals of which three are breakfasts, three are lunches and three are teas.

Suggestions for a Menu

- Breakfast**
- * 2 Wheetbix (crushed), sultanas, powdered milk
 - * 2 Slices of Toast, butter, honey, marmite, jam or peanut butter
 - * Granola plus sultanas
- Lunch**
- * Salad :1 tomato, boiled egg, 2 slices of nutmeat, three bean mix, cheese 2 slices bread, 1 apple
 - * 2 baked potatoes, baked corn on cob, banana, dry wholemeal biscuits
 - * Nuts, dried fruit and biscuits
- Tea**
- * Packed sandwiches from home.
 - * Soup, peas and nutmeat, fruit (fresh or canned) and hot drink.
 - * Rice or noodle dish, cooked dehydrated vegetables, hot drink

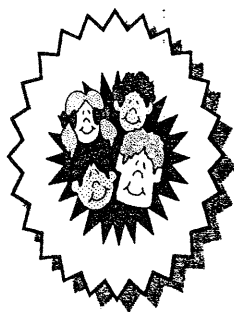
Remember to get a menu agreeable to all four people. It is best to do it together.

Use heavy and perishable items first. Lunches should be smaller and lighter. All meals should be individually packed at home. For example for breakfast put wheetbix, sultanas, powdered milk in plastic bag. All you will need to do is to tip into a plate with hot water and breakfast is ready. Other suggestions are, pancakes both savory and sweet, haystacks, precooked savories, jaffles, hearty soups, scrambled eggs and so on.

PLAN A MENU

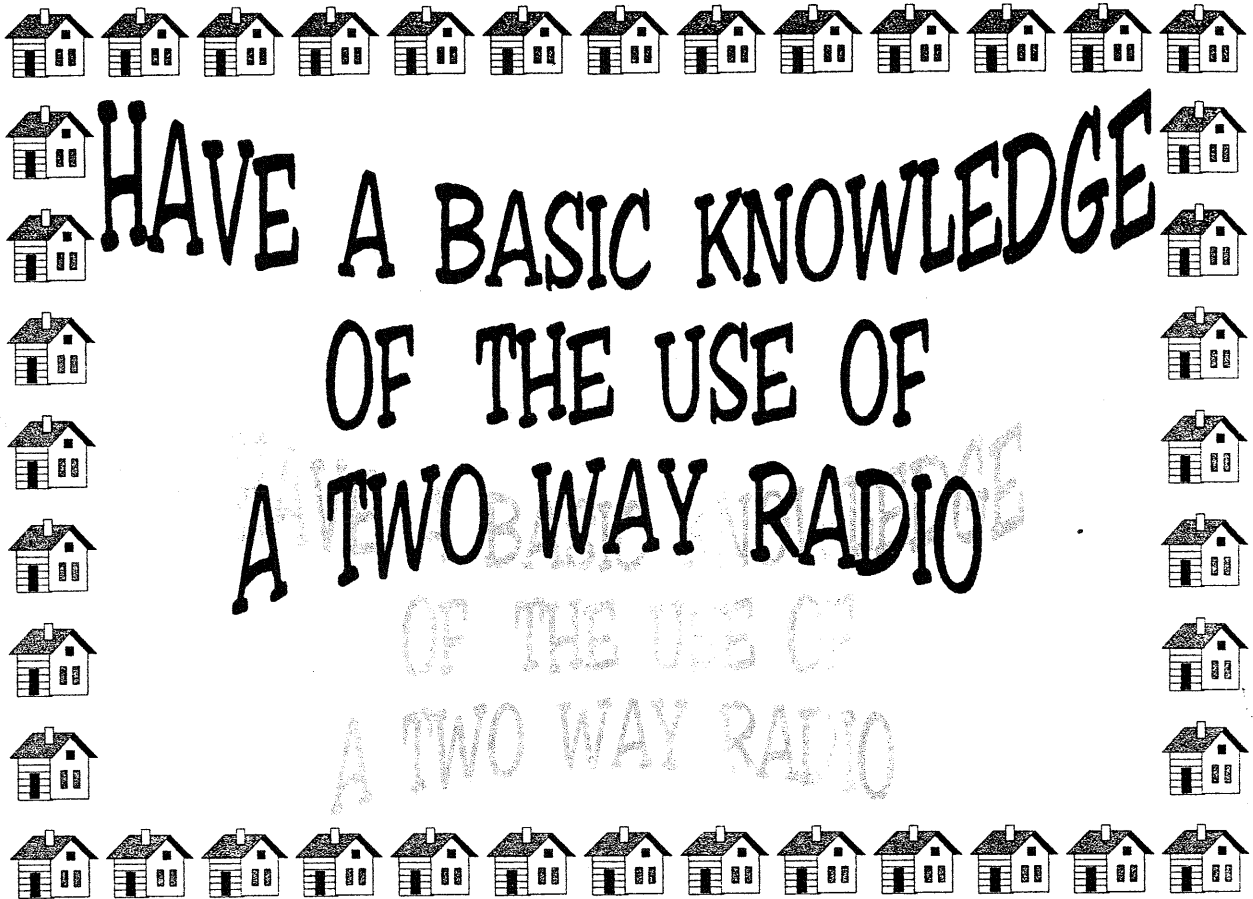
FOR

A 3 DAY CAMPING TRIP FOR FOUR PEOPLE



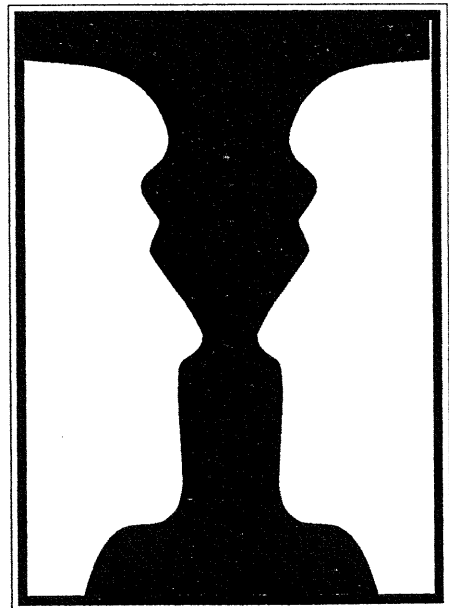
	BREAKFAST	LUNCH	TEA
AFTERNOON OF ARRIVAL			
DAY 1			
DAY 2			
DAY 3			

FILL IN THE CHART ABOVE
REMEMBER
DRINKS, FRUIT, A BALANCED DIET AND EASE OF PREPARATION
DON'T FORGET TO PLAN FOR 4 PEOPLE

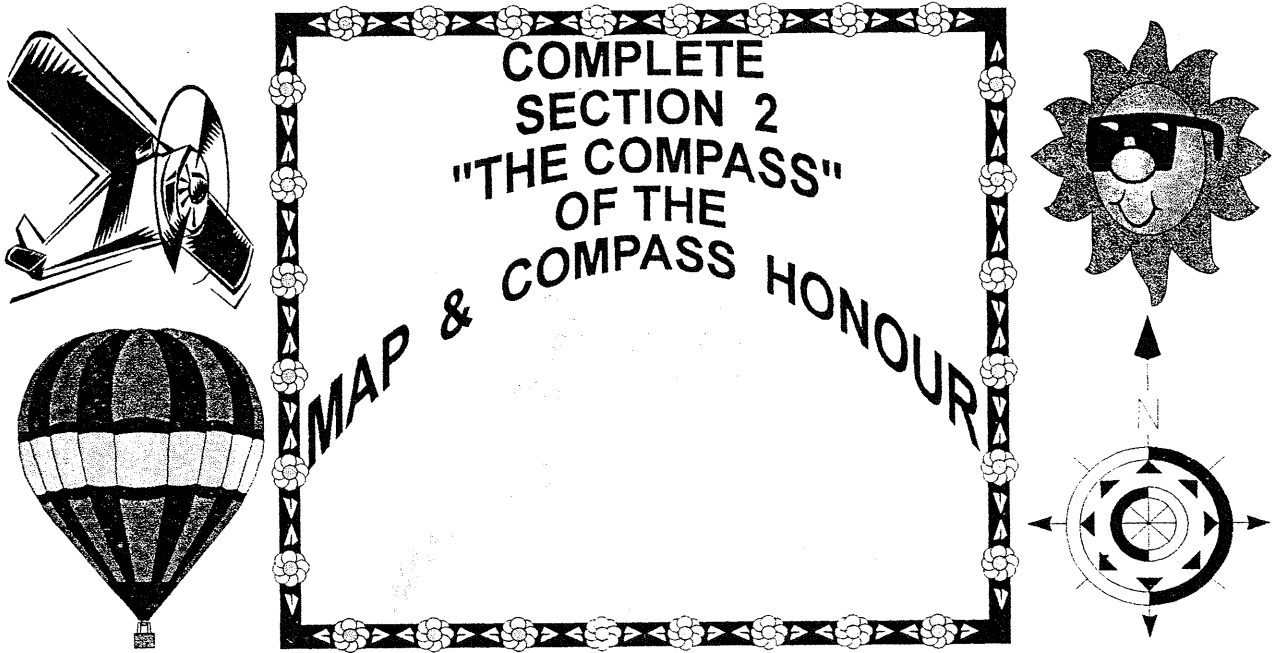


HAVE A BASIC KNOWLEDGE OF THE USE OF A TWO WAY RADIO

Points to Remember



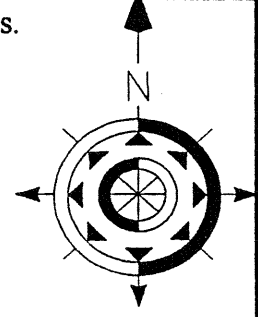
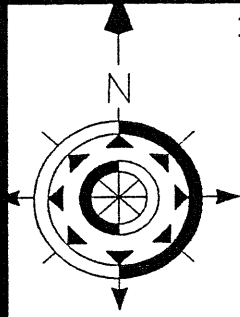
Date _____
Signed _____



1. Draw a diagram showing the 8 major points of a compass and show the degrees of their bearings.

2. Be familiar with several different types of compass. Compass needles are balanced to swing freely in a horizontal plane. The balancing is different in the northern and southern hemisphere so make sure your compass suits. Since a compass is magnetic and a light one at that, it should never be stored near large masses of iron or other magnets like loudspeakers. What type of compass is the one almost universally used in the bush? _____

3 Sketch and name the parts of an orienteering compass.



- 4 A direction, expressed in degrees and measured from north is called a bearing. In quoting a bearing you must state the north from which it is measured (True, grid or magnetic) e.g. 234 degrees magnetic, 234 degrees True. Magnetic bearings are used when you wish to take a bearing from your position to an observed feature to which you want to go. This bearing can then be followed without worrying about G-MA (Grid Magnetic Angle)

To take a *magnetic bearing*, point the travel arrow towards the feature where you want to go. Rotate the compass housing until the orienting arrow is directly below the magnetic needle. The bearing indicated at the index line is the bearing related to magnetic north. This bearing may then be followed by keeping the orienting arrow under the magnetic needle and walking in the direction of the travel arrow.

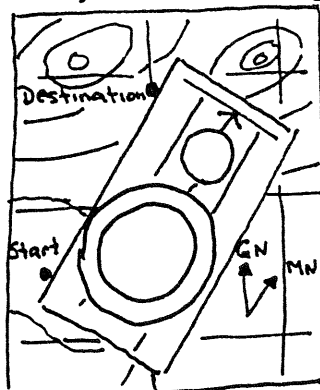
I have demonstrated my ability to "Take and march on a magnetic bearing"

Date _____ Instructor's Signature _____

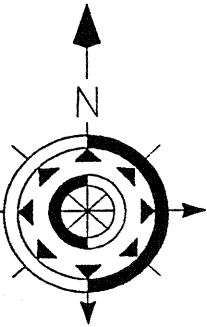
You may want to take a *Map Bearing* and set it on a compass, in order to guide travel to a land feature which is not in view or which may go out of view. Assume you are on a mountain top and want to go to a nearby river junction which you cannot see. Your compass can guide you if it is first set from the map. The setting process ignores the magnetic needle and uses the compass base and housing as a protractor.

The steps are as follows:

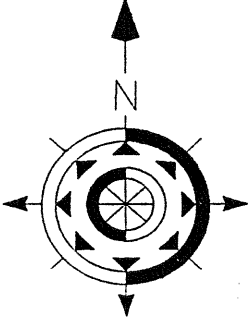
- i) Place the long edge of the compass along the bearing desired. Ensure the travel arrow faces in the direction of your destination. Ignore the compass needle.

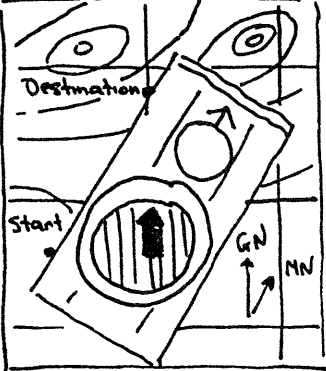


Step 1.

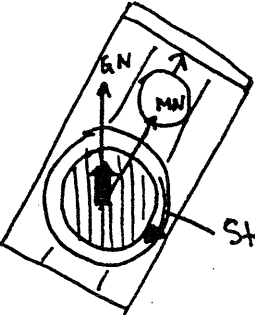


ii) Hold the compass base on the map and turn the compass housing until the orienting arrow is parallel with the grid lines and points to Grid North. Ignore compass needle. This is a grid bearing,






Step 2.



Step 3

iii) Correct for G-MA. (Grid Magnetic Angle) Place the compass on the north arrow diagram on the map. Without altering the setting, align the orienting arrow with the north arrow. Hold the compass base and turn the housing to move the orienting arrow towards the Magnetic North Arrow on the diagram (it is a magnetic bearing you want) The correct number of degrees is counted as the dial passes the index line (i.e. remember - north arrows are only a diagram and not accurate bearing). Ignore compass needle.

iv) The compass is now set to the magnetic bearing. Hold the compass at your waist, in the palm of your hand, with the travel arrow pointing directly ahead. Turn yourself around until the north end of the needle aligns over the orienting arrow. The direction to proceed (or look) is now indicated by the travel arrow on the compass.



Step 4

I have demonstrated my ability to take “ a map bearing”.
Date: _____ **Instructor’s Signature:** _____

You may want to take a bearing from the land or a land feature with the compass and refer it to the map to locate that feature on the map. This is done by firstly taking a magnetic bearing, converting it to a grid bearing by following the above steps in reverse.

When following a compass bearing from some feature, you may want to check back to that feature too, to see if you are on course or you may wish to retrace your steps. The bearing in the reverse direction is called a *back bearing* and is simply 180 degrees different from the forward bearing. The best method of obtaining a back bearing is - leave the compass set at the forward bearing and holding it in front of you, simply turn around. There is no need to add or subtract 180 degrees: the south end of the needle now covers the orienting arrow, and the travel arrow on the compass points to the feature from where you came.

I have demonstrated my ability to take "a Back bearing"

Date: _____ Instructor's signature: _____

Suppose while you are travelling on a magnetic bearing you run into a maze of small cliffs which push you off course. If you still follow the compass bearing you will not be on the true course but rather on a parallel course. This error is called "*slipping*"

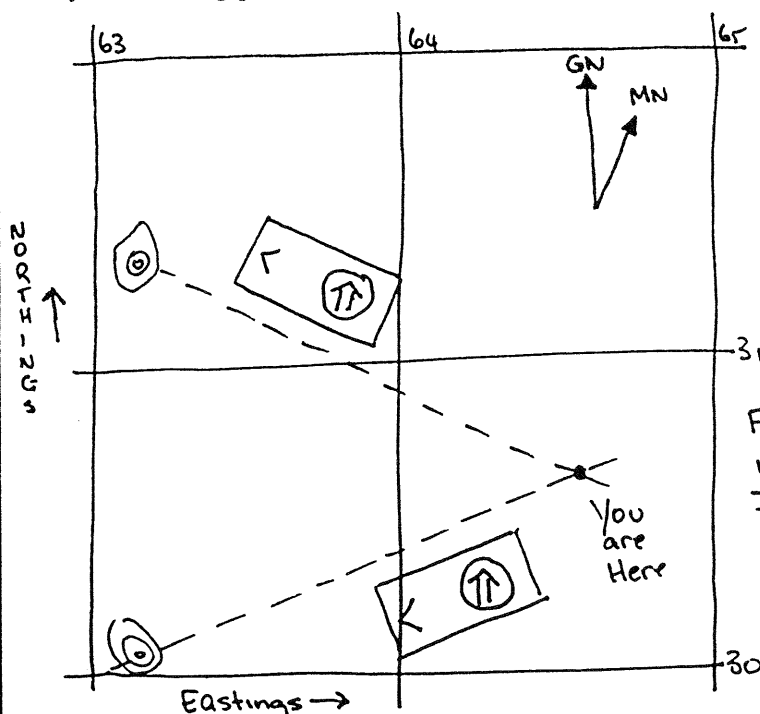
If your starting point is in view, slipping can be corrected by:-

- i) Hold the compass on the palm of your hand with the original bearing unchanged. Turn around until the south end of the compass needle is aligned with the orienting arrow.
- ii) Move sideways with the south end of the needle and the orienting arrow lined up, until the travel arrow points to your starting point. You are then on course.

I have demonstrated my ability to "correct for slipping"

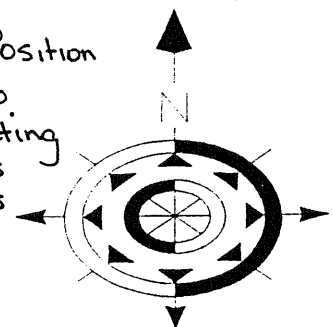
Date: _____
Instructor's Signature: _____

If your starting point is not in view, you will have to do a resection to locate your position.



Resection is a method used to locate your position on a map. It is useful for locating your correct position 'after slipping' or to confirm a position if you are not sure where you are.

Finding Position
With Two
Intersecting
Compass
Bearings



Two Bearing Method

Look around, you will need to identify two landmarks, say peaks, that can be unmistakably identified on the map. If a bearing is taken on one peak and transferred to the map (using the method outlined at the end of “taking a bearing” , then another bearing on the other peak is also transferred to the map, the intersection of the two lines will be your position.

Remember G-MA (Grid Magnetic Angle) must be taken into account when transforming magnetic bearings to grid bearings for resection to be accurate.

One Bearing Method

If you are on a linear feature like a river, track or road, only one bearing from an identifiable feature is needed to establish your position, provided the linear feature does not meander considerably. Where the bearing taken from the identifiable feature crosses the linear feature, when plotted on the map, this is your position.

I have demonstrated my ability to do a Resection.

Date: _____ **Instructor’s Signature:** _____

Orient your Map by Inspection and by Compass.

Before you do any navigation with the map alone, you should perform the simple task of orienting the map. That is to rotate the map so that the North on the map points North. This correctly juxtaposes the features on the ground with their representatives on the map.

By Inspection. If your position is known, and you can identify some land marks nearby, the map can be oriented by observation. Locate the landmark on the map. Connect this position and your position on the map with a pencil or stick etc. Turn the map about the point marking your position, until the pencil points to the actual landmark. The map is then oriented. Orienting a map by inspection is not always accurate (depends upon operator and G-MA) and should only be used when a compass is not available.

By compass.

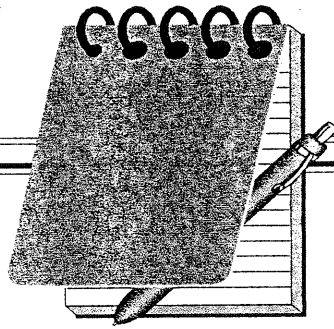
- i) Determine G-MA (Grid Magnetic Angle) of the map.
- ii) Set North (0 degrees) on your compass to the index line.
- iii) Set your compass housing to the G-MA so that the compass replicates the north arrow diagram: that is, the travel arrow points generally along the magnetic arrow.
- iv) Leaving the compass set, place it anywhere in the map with the long edge along one of the grid lines and with the travel arrow pointing to grid North. Ignore compass needle.
- v) Without moving the compass, rotate the map with the compass until the north end of the needle aligns over the orienting arrow.



I can Orient my map by Inspection and by Compass.

Date: _____
Instructor’s Signature: _____

hike 16 Kilo Meters
&
KEEP A LOG



WHERE

DATE

TIME

WHO

WEATHER

DURATION

WHAT I SAW

WHAT I DID

BACKPACK GEAR AND FOOD

Strong and Comfortable walking shoes

Socks, Woollen jumper

Underclothes, Walking clothes

Nylon spray jacket or similar

Hat to keep of sun and rain

Sunscreen

Thermal underclothes

Underclothes

Trackpants or jeans

Warm shirt and/or jumper

Sleeping bag

Small towel

Logbook and pen/pencil

Map/s and compass

Half roll of toilet paper

Torch and matches

First aid kit

Toothbrush, small soap

Foam sleeping mat

1 litre water bottle

Money for emergencies

Whistle

Handline 9 (meters strong cord)

Small stove and fuel

Plastic bag for rubbish

Torch

Cooking and eating gear to cater for your menu

Note: Put all gear in plastic bags, in pack, to protect from moisture.

Remember: medication, asthma sprays etc.

Group shared equipment

Garden trowel for toileting , Tent and Groundsheet.

Suggested Foods

Packets savory rice/noodles

Dried peas or corn

Dried potato whip

Cheese sticks

Cup-a-soups

Twisties or corn chips

Fruit bars

Musuli bars

Fresh fruit first day

Breakfast cereal/dried milk

Dried fruit and nuts

Savory and sweet biscuits

1 litre water

Pita bread/marmite, nutella,

Peanut butter

Energy bars

Identify 6 tracks of animals or birds

The easiest place to find footprints is in wet or muddy soil. In the bush look in the center of clearings or on the edge of streams or lakes in the middle of gullies. If tracks are new the soil will be fresh and crumbly with no rain marks or leaves on top. If an animal is traveling fast the toes are usually dug in, with a kick back of soil. Hopping bird tracks belong to insect eaters. To identify the owner of the footprint either look it up in a book or find the animal that made it. You can either track the animal or make a "hide" and wait for the animal to appear. Remember many Australian animals are nocturnal, meaning they are most active and feed through the night at dusk or early morning. Try to stay upwind of the animal so it will not smell your scent. remember be silent as sound carries in the stillness of the bush. Avoid being seen, only move when the breeze blows and keep below the skyline. Remove brightly coloured clothing.

Following Footprints

- 1) **Study one track carefully.**
- 2) **Look at the Trail as a whole.** There may be several places where a footprint is missing, but by looking ahead you can see the trail standing out clearly, especially if the animal went through a field and bent the grass.
- 3) **Use the sun.** Tracks stand out much more clearly when the sun casts a shadow along one edge. The best time to track is when the sun is low, making longer shadows. So get out early, when the tracks are fresh and the shadows long. Walk on the side of the track away from the sun.
- 4) **Imagine you are the animal you're tracking.** Ask yourself "Where would I go if I were this animal?" Would it go into the river, up a tree, into a bush etc.
- 5) **If you lose the trail, mark the last track and look around.** Mark track with bright cloth then walk around in circles, first small, then gradually larger.
- 6) **Never walk on the tracks.** You may need to go back and study them again.

Tips

Rake a piece of ground. animals that walk across it in the night will leave clear tracks. Find out what are the 6 most common animals in your area and learn their tracks first.

I Identified the Following 6 Tracks of Animals and Birds.

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | 6. |

Date _____ Supervisor's Signature _____

Make a plaster cast of two tracks

TO MAKE A MOULD

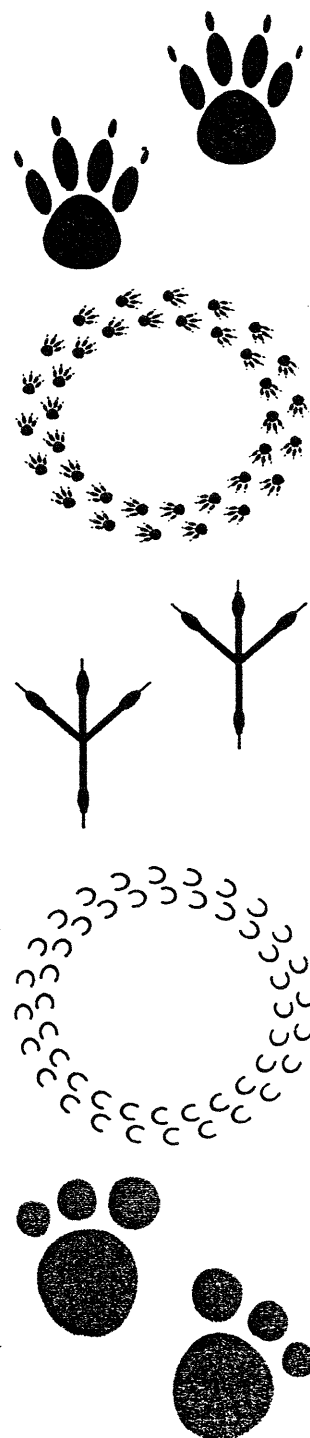
- 1 When good clear tracks are found, sprinkle the track with talcum powder to prevent dirt adhering to the plaster. If making a cast in snow sprinkle the inside of the track with water. A thin layer of ice forms which strengthens the snow in the track. Stir in a little snow in the plaster to make it stronger
- 2 Place piece of cardboard in a circle around the footprints to serve as collar. Make the cardboard a couple of centimeters high and use a few paper clips to form a loop a little larger than the track. Put earth around it so the plaster won't leak out.
- 3 Place some Plaster of Paris (builder's plaster is just as good) in bowl and slowly add water to the plaster while you stir with a pencil or a stick. To make good casts it is important to make plaster of the proper consistency. If it is too thick plaster may not fill in some of the smaller details of the track. Watery plaster takes longer to harden and may become powdery when dry.
- 4 You have to work quickly since the plaster begins to harden in 5 to 10 minutes. Pour the plaster in the track until it fills out to the sides. Take care not to let any air bubbles in. (Take the container in which the mixed up plaster is in and tap it on the ground six or seven times to remove air bubbles before pouring into mould)
- 5 Wait for ten or twenty minutes for it to harden, then dig around the plaster with a dull knife blade. Wash off the mud that slings to the bottom of the cast. You should see a nice copy of the track preserved in plaster. THIS IS THE MOULD.

TO MAKE THE CAST

Grease the top of the mould with vaseline and place another circle of cardboard around the mould and extending 2 centimeters above the mould.

Pour in another batch of plaster mix into the mould.

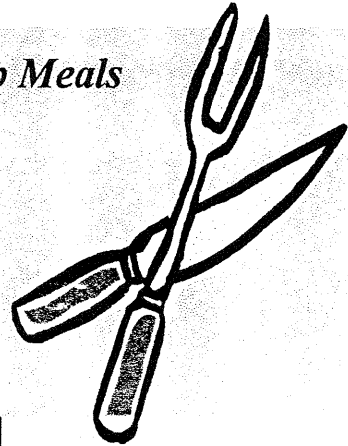
When this hardens, separate the two and trim edges of the finished cast with a knife. You now have a positive cast of the animals footprint.



I Planned and Cooked the Following Camp Meals

Meal 1

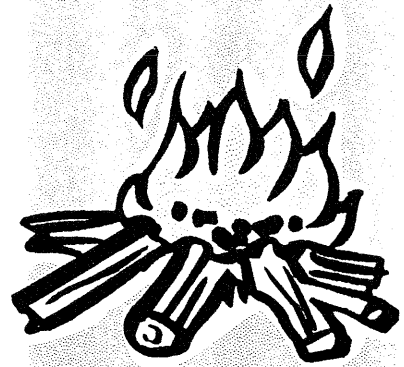
Meal 2



Date:

Campout at:

Team Leader's Signature



Plan and cook two camp meals

CAMP FURNITURE

MAKE A SKETCH OF THE CAMP FURNITURE BUILT

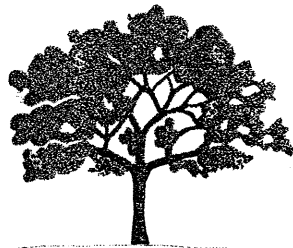
WE BUILT A.....FROM BUSH TIMBER AND ROPE

DATE:

SUPERVISOR'S SIGNATURE :

I REVIEWED THE FOLLOWING LASHINGS

SQUARE	DATE	SIGNED
DIAGONAL	DATE	SIGNED
SHEER	DATE	SIGNED
CONTINUOUS	DATE	SIGNED



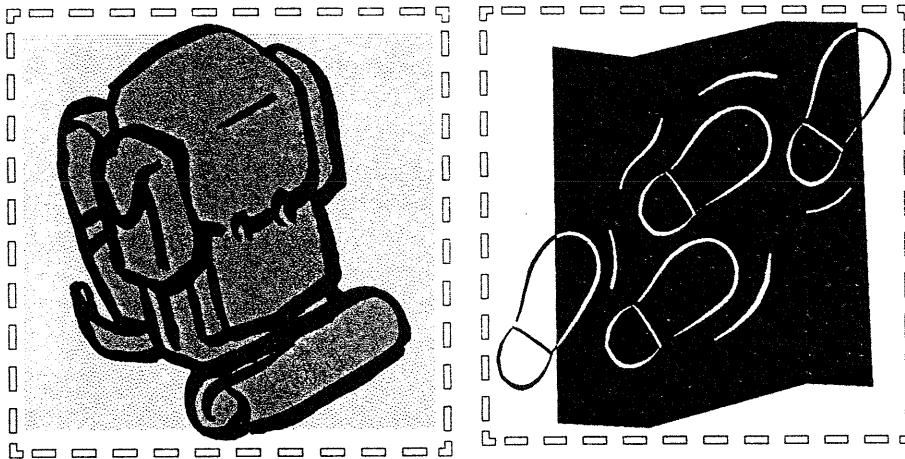
**COMPLETE SECTION 4
PRACTICAL**

"THE MAP AND COMPASS HONOUR"

Requirement 1

I have demonstrated my ability to take a map bearing between two points and then navigate between the two points

Date: _____ Supervisor's Signature: _____



Requirement 2

I have completed a 20 kilometer bush walk in unfamiliar terrain. I stayed out one night camping in the open at least 5 kilometers from the nearest mode of transport. I have kept a log book detailing grid references and plans for the proposed route together with records of the actual route taken.

Date: _____ Supervisor's Signature: _____

Read the gospel of John in any translation and discuss in your group any one of the following:

John 13: 12-17

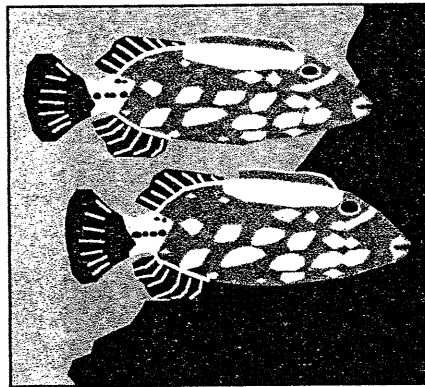
Humility

John 14 :1-3

Lord's Promise

John 15: 5-8

Vine and Branches



I have read the gospel of John

Date _____ Signed _____

Our group discussed _____

Write a few lines about the topic discussed



EXPLAIN THE MEANING OF THE FOLLOWING BIBLE TEXTS



Proverbs 20:1 Wine is a mocker, strong drink is raging and whosoever is deceived thereby is not wise.



Proverbs 23:



29 Who hath woe? Who hath sorrow? Who hath contentions? Who hath babbling? Who hath wounds without cause and who hath redness of eye?



30 They that tarry long at the wine; they that seek mixed wine.



31 Look not thou upon the wine when it is red, when it giveth his colour in the cup, when it moveth itself aright.



32 At the last it biteth like a serpent and stingeth like an adder.





CONCORDANCE

List 5 different topics (and the bible verses) found with the aid of a concordance

1 _____

2 _____

3 _____

4 _____

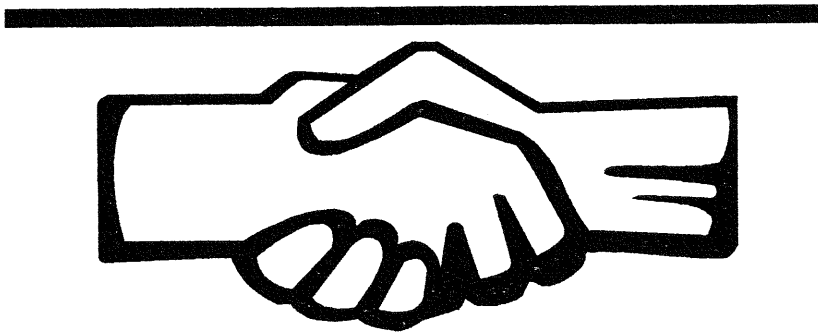
5 _____

Date

Teacher's Signature:



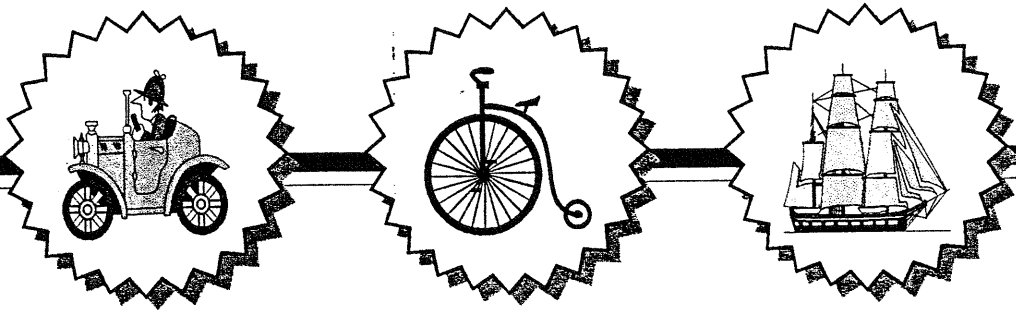
MEMORY GEM CERTIFICATE



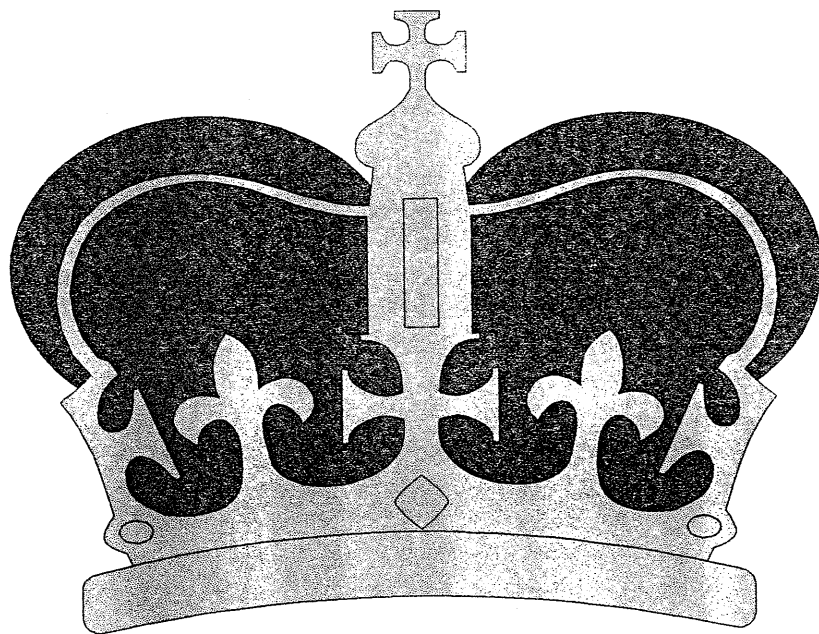
AWARDED TO

ON

LEADER'S SIGNATURE



MEMORY GEM CERTIFICATE



AWARDED TO

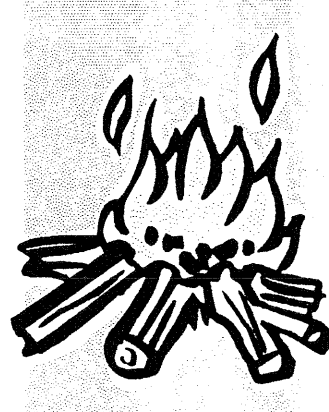
ON

LEADER'S SIGNATURE

CHURCH HERITAGE

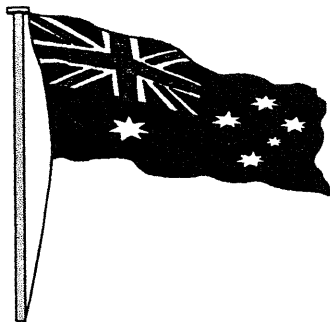


CAMPING



YEAR	CHURCH HERITAGE	YEAR	CAMPING
	Great Controversy		Sleeping Equipment
	Midnight Cry		Cooking Equipment
	Tell it to the World		Search and Rescue
	Spread of Advent Message		Camp Clothing
	Role of E G White		Back Packs
	Local Church History		Bushfire Emergency

FLAGS AND ANTHEMS



HEALTH



YEAR	FLAG AND ANTHEM	YEAR	HEALTH
	National Flag		Smoking
	National Anthem		Alcohol
	Pathfinder Flag		Drugs
	Pathfinder Song		Diet
	Pathfinder Guidon		Exercise/Physical Fitness
	Flags on the March		Adventist Lifestyle



EXPLORER INVESTITURE

NAME _____

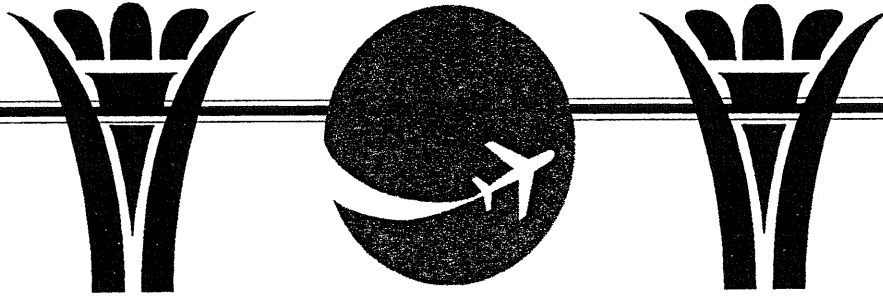
WAS

INVESTED

AT _____

ON _____

BY _____



ADVANCED REQUIREMENTS

23. Participate in ALL the club required community service projects for the year.
24. Commit to memory, in any translation, one of the following.

Jonh 13: 12-17

John 14: 1-3

John 15: 5-8

Humility

Lord's Promise

Vine and Branches

25. Make two additional plaster casts of birds or animal tracks.(see requirement 13)
26. Complete one additional honour not previously earned.

The Honour that I completed was: _____

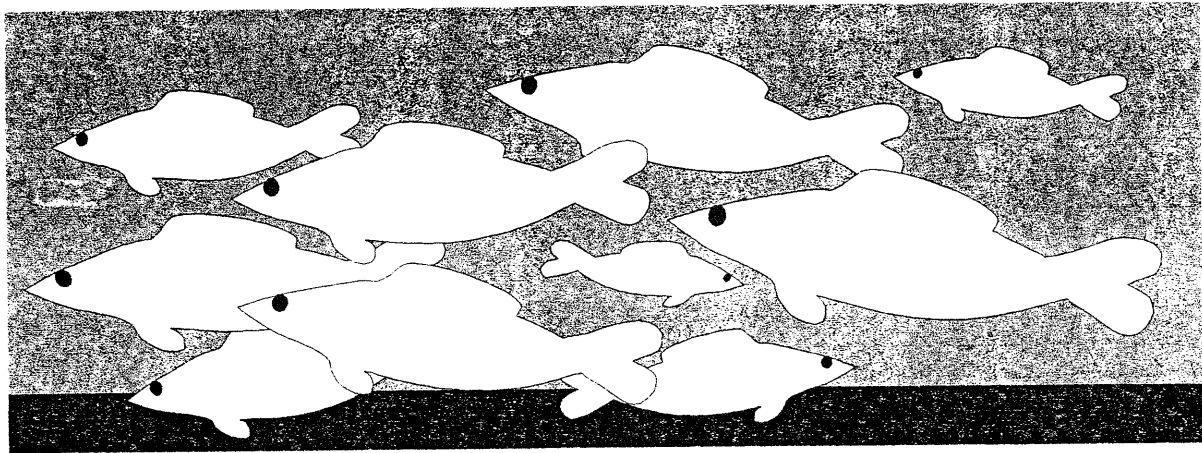
27. Attend at least two Conference Events.

I attended: 1. _____

2. _____

EXPLORER

ADVANCED EXPLORER
REQUIREMENT 23



COMMUNITY SERVICE
COMMUNITY SERVICE

I have participated in the following Community Service Projects

- 1.
- 2.
- 3.

Date:
Date:
Date:

Signed:
Signed:
Signed:



ADVANCED EXPLORER
REQUIREMENT 24



COMMIT TO MEMORY IN ANY TRANSLATION
ONE OF THE FOLLOWING

John 13:12-17

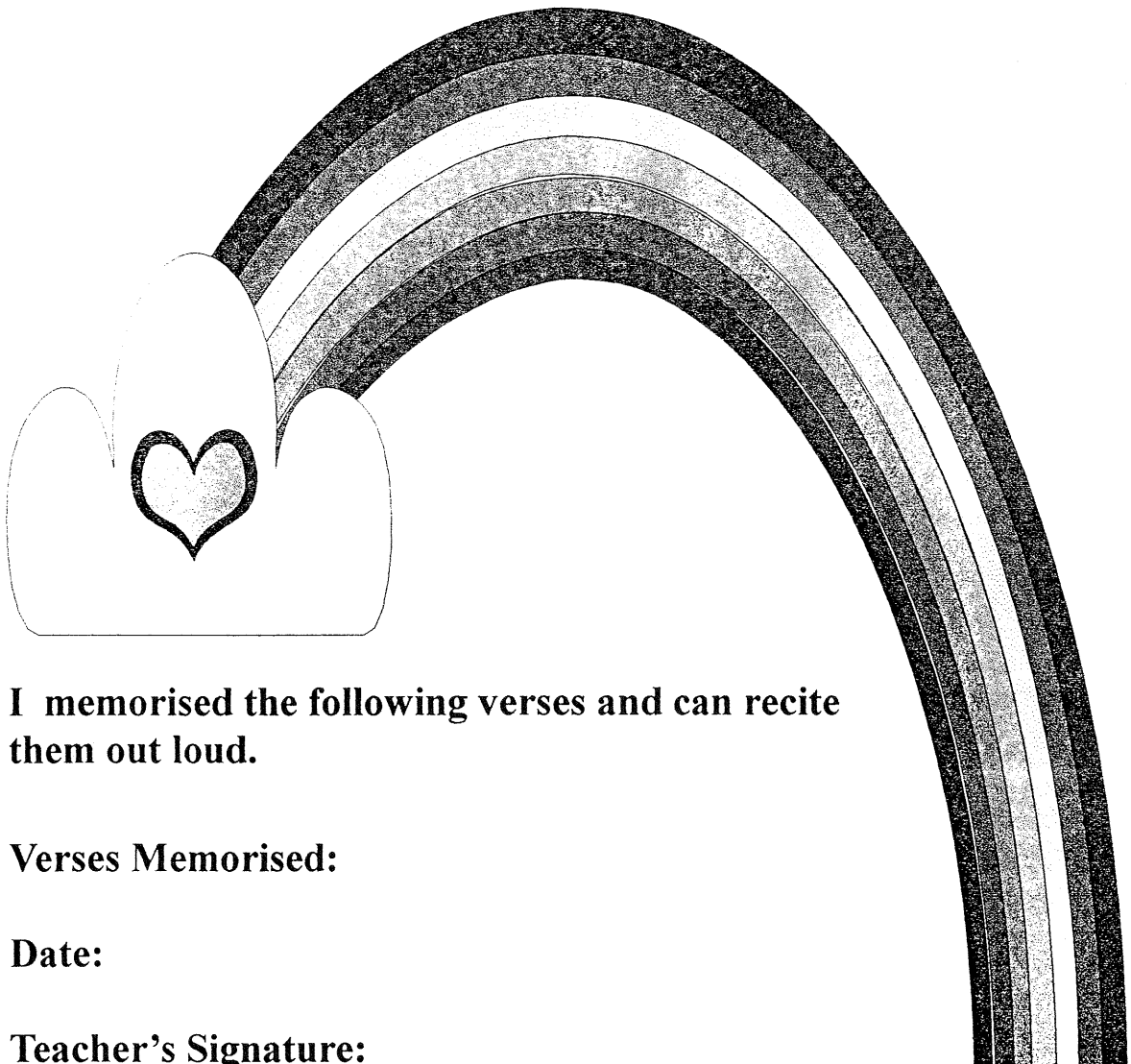
Humility

John 14: 1-3

Lord's Promise

John 15: 5-8

Vine and the Branches



I memorised the following verses and can recite them out loud.

Verses Memorised:

Date:

Teacher's Signature:



ADVANCED EXPLORER
REQUIREMENT 25

57

 **MAKE TWO ADDITIONAL PLASTER
CASTS OF BIRD OR ANIMAL TRACKS
NOT PREVIOUSLY MADE IN
REQUIREMENT 13**

 Casts Made: 1 _____
2 _____

Date Made: _____

 Teacher's Signature: _____

ADVANCED EXPLORER
REQUIREMENT 26



COMPLETE ONE ADDITIONAL HONOUR
NOT PREVIOUSLY EARNED

HONOUR COMPLETED

DATE

SUPERVISOR'S SIGNATURE

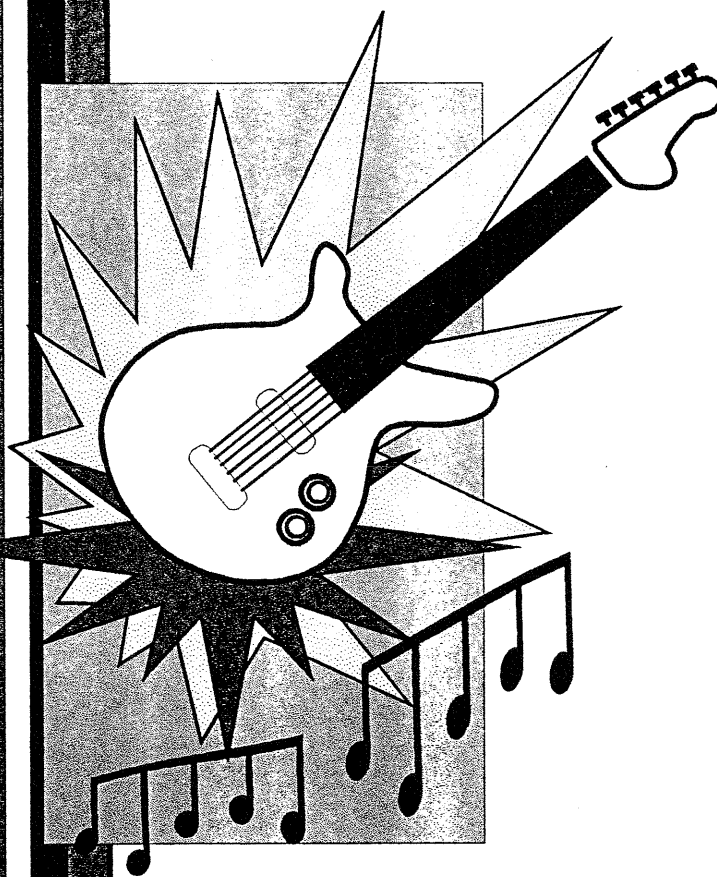
 

CONFERENCE EVENTS

ATTEND AT LEAST

TWO

CONFERENCE EVENTS



EVENT 1.

AT:

ON:

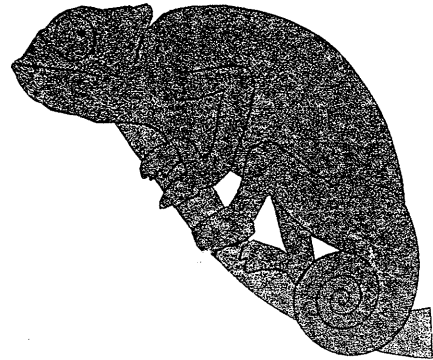
SIGNATURE :

EVENT 2.

AT:

ON:

SIGNATURE :



AMPHIBIANS

1. What are the characteristics of amphibians?
2. Name the two main orders of *Amphibia* and tell how to distinguish between them.
3. Distinguish between toads and frogs.
4. How do amphibians protect themselves?
5. Make a list of amphibians that should be found in your locality. Identify five and tell where you found them. Or collect pictures or sketch five different amphibians which you can identify, and tell why they inhabit your area.
6. Describe the life history of some amphibians.
7. Explain the economic value of amphibians.
8. Where do toads spend the winter?
9. Identify two species of frogs by their sound, or imitate the sounds of two different species of frogs.
10. How do frogs and toads sing? What makes the noise so loud? Which ones sing with their mouths closed?
11. Observe a toad in your backyard or neighbourhood to find out:
 - a) Where and when it sleeps.
 - b) When it leaves its home for food.
 - c) How fast it can travel.
 - d) How far it can jump.
 - e) Find out as many other interesting things as you can.

OR- Hatch frog eggs in your own aquarium and watch them grow to tadpoles.

OR- Write an essay covering the details requested in the first section of this question.

BIRDS

1. Make a list of twenty species of wild birds that you personally have observed and positively identified out of doors.
2. Make a list showing the greatest number of species seen out of doors in one day.
3. What flight habit of a bird in your locality (peregrin falcon) distinguishes it from all other birds of its size?
 - a) How does this bird carry its food?
 - b) Of what does its food consist chiefly?
4. Name two birds that are expert at soaring.
 - a) What bird can fly backward?
 - b) What large bird doubles its neck in an S-curve while flying?
5. Name two or more birds that:
 - a) Feed chiefly on the wing.
 - b) Feed chiefly on the ground.
 - c) Feed chiefly on the bark of trees.
6. Locate and describe, sketch, or photograph, five nests of birds, and identify the kind of bird that built each.
7. Write or give orally three ways in which God's love and purpose is shown in the creation of birds.
8. Set up a feeding station and report on the bird visitors observed over a period of five days.



FLOWERS - Wildflowers

1. Draw or photograph 35 kinds of wild flowers and identify correctly.
2. Draw and properly label, or point out the actual parts of a specimen:
 - i) pistil
 - ii) stamen
 - ii) petal
 - iv) sepal.
3. Name six flower families and their distinguishing characteristics. Name at least two flowers in each family.
4. Describe the life story of a particular flower, including the part played by insects or wind in fertilization.
5. Name at least two plants that are poisonous to touch, and to state which if any, are found in your locality.
6. Choose three questions to answer out of the following five.
 - a) Arrange, draw or photograph a series of at least six flowers showing in order, the colors of the rainbow - red, orange, yellow, green, blue and violet.
 - b) Submit a list of flowers, naming at least one flower for each of the following categories:
 - i Having five petals.
 - ii Having four petals.
 - iii Having three petals.
 - iv Having no petals.
 - c) Distinguish and name two out of five wild or cultivated flowers by their odour, while blindfolded.
 - d) List flowers that are visited for food by the following:
 - i Honey eaters.
 - ii Bees.
 - iii Butterflies.
 - iv. Moths.
 - e) Watch a flower for at least ten minutes in the sunshine, and at least ten minutes after dusk, and report on insect visitors. State number and kind of visitors and name flower.

A decorative border of small black umbrellas surrounds the page. The umbrellas are arranged in a rectangular frame, with one row at the top, one at the bottom, and vertical columns on the left and right sides.

WEATHER

1. Be able to explain how each of the following is formed:

- a) Fog
- b) Rain
- c) Dew
- d) Snow
- e) Hail
- f) Frost

2. Be able to recognize in the sky or in pictures, the following types of clouds:

- a) Cirrus
- b) Cumulus
- c) Stratus
- d) Nimbus

How is each formed and what kind of weather is associated with each?

3. Explain the action of mercury or spirit thermometer, a mercury thermometer, an aneroid barometer and a rain gauge.

4. Why is it possible to be rainy on one side of a mountain range and cooler and more moist in the mountains than in the lowlands? From which direction do rain and clear weather usually come in your locality?

5. Show, with the help of a diagram, how the earth's relationship to the sun produces four seasons.

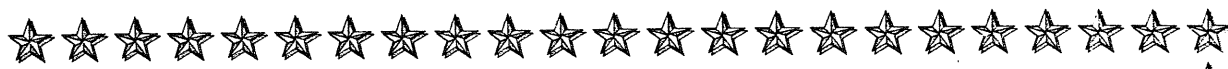
6. What causes lightning and thunder? What different kinds of lightning are there?

7. What is convection? What is its relation to winds?

8. Keep a weather chart for one week and record readings at twelve-hour intervals.

Include the following:

- a) Temperature
- b) Moisture-dew, fog, rain, frost or snow.
- c) Cloud Formation
- d) Wind Direction



★ STARS



- ★ 1. Of what is the solar system composed?
- ★ 2. Make a diagram showing relative positions and movements of the earth, sun, and moon. What governs the tide? What causes an eclipse? What is a shooting star?
- ★ 3. How fast does light travel?
- ★ 4. Identify in the sky, eight fixed stars.
- ★ 5. What is a constellation? Name and point out six. Name two constellations visible throughout the year.
- ★ 6. Draw a chart of the Southern Cross, Orion and Scorpio.
- ★ 7. Observe a sunrise and a sunset and describe each.
- ★ 8. What is the Milky Way? Give its course through the heavens.
- ★ 9. What is the Morning Star?
- ★ 10. Explain *zenith* and *nadir*.
- ★ 11. What is the Aurora Australis? Have you ever seen it?

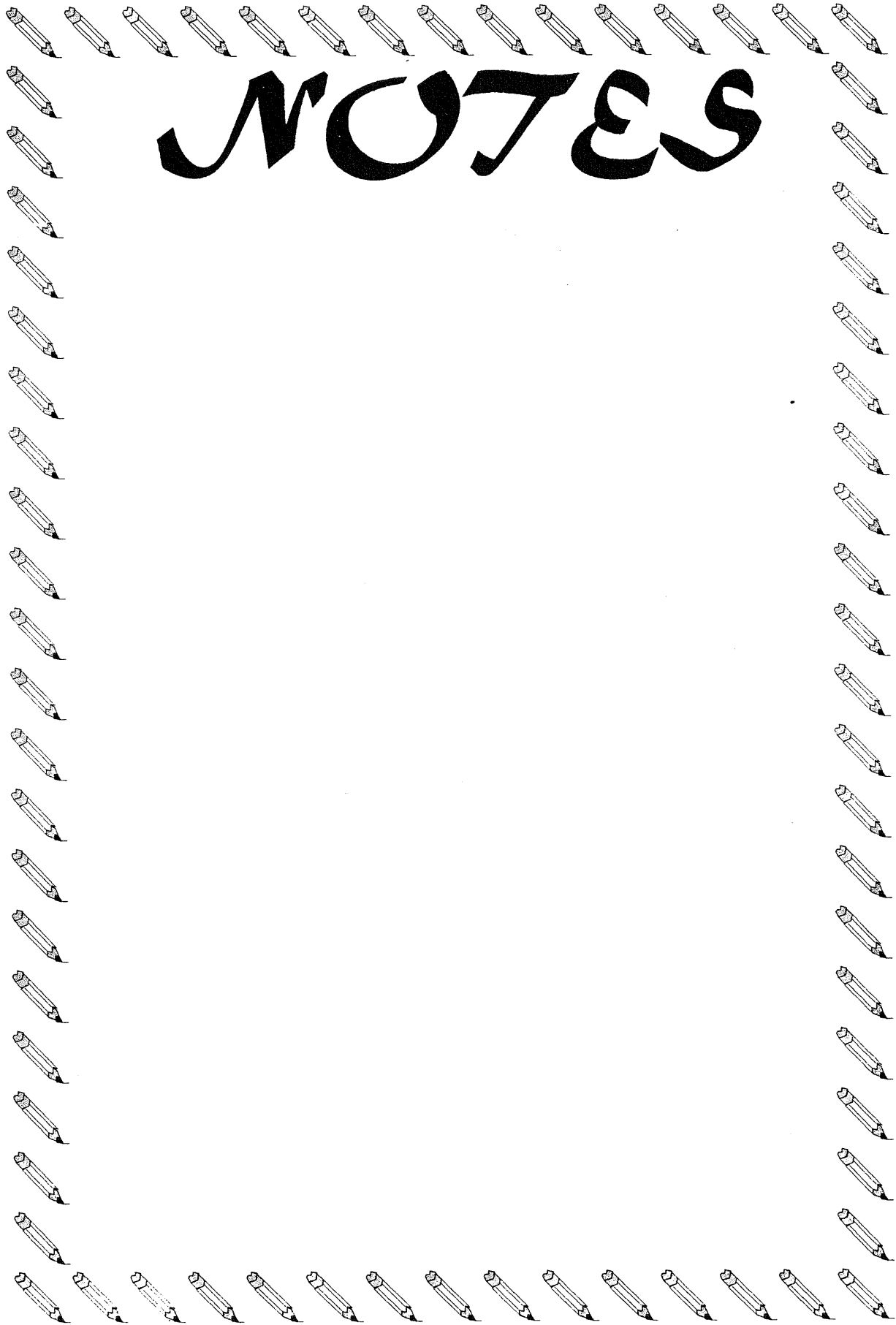


ANSWERS TO QUIZ ON PAGE 8

1. False
2. True
3. False
4. False
5. False
6. False
7. False
8. True
9. False
10. False
11. True
12. False
13. True
14. True
15. True
16. True



NOTES



MASTER AWARDS

A Pathfinder may earn a **Master Award** by completing seven honours in a given category. Most set a core group of four and a selection of three others. The award patch can be worn on the sash above the seven honours for which it was earned. You have already completed some honours which may go towards your Zoology Master or Naturalist Botany Master.

ZOOLOGY MASTER

Core: Birds, Insects, Mammals, Marine Invertebrates.

Plus choose any three of the following honours:

Amphibians, Bird Pets, Cats, Dogs, Dog Care and Training, Domestic Animals, Fishes, Moths & Butterflies, Poultry, Reptiles, Shells and Spiders.

NATURALIST-BOTANY MASTER

Core: Flowers, House Plants, Shrubs, Trees. (Note house plants is also in the Homemaking Master)

Plus any four of the following honours:

Cacti, Ferns, Fungi, Grasses, Lichens, Liverworts and Mosses, Marine Algae, Orchids, Seeds.

WILDERNESS MASTER

Core: Campcraft, Firebuilding and Camp Cookery, Hiking, Map and Compass.

Plus any three of the following Honours:

Animal Tracking, Edible Wild Plants, Knot Tying, Pioneering, Weather-Advanced, Wilderness Leadership, Wilderness Living, Winter Camping.

HOMEMAKING MASTER

Core: Cooking, Housekeeping, Laundering.

Plus any four of the following Honours:

Baking, Basic Sewing, Dressmaking, Flower Arranging, House Plants, Preserving, Tailoring.

ARTISAN MASTER

Any seven Honours in arts and Crafts.

WITNESSING MASTER

Core: Christian Storytelling, Junior Witness, Temperance,

Plus any other four Honours in outreach.


TECHNICIAN MASTER

Any seven Honours in Technics.

There are other Masters: **Aquatic Master** **Conservation Master**
 Farming Master **Sportsman Master.**

See your club leaders re requirements for earning these.

HONOURS COMPLETED TOWARD A MASTER AWARD



MASTER CHOSEN

HONOURS
COMPLETED
