

CROSS-COUNTRY SKIING



4-H ADVENTURE/CHALLENGE PROJECT

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INFORMATION OR ACTIVITY TITLE

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CROSS-COUNTRY SKIING ADVENTURE/CHALLENGE PROJECT

Please Note: Participants MUST own equipment or have access to equipment rentals. Equipment will NOT be provided.

Materials for Members:

- Cross– Country Skiing Adventures Manual (For member & leader use)
- 4-H Project Record Book (#91950)

Project Objectives (Youth will):

1. Learn about different types of cross-country skiing equipment
2. Learn how to dress appropriately for a ski trip.
3. Learn how to plan a ski trip.
4. Learn about trail courtesies
5. Learn about trail safety
6. Learn skiing techniques
7. Learn about wildlife habits in winter months.
8. Learn about the natural resources in the areas skied in.
9. Discuss Health issues related to Cross-Country Skiing (Safety, Physical Conditioning, and Nutrition)
10. Learn Map and Compass Skills.
11. Keep a record of project costs.
12. Take a **minimum of 2** group ski trips, distance determined by the abilities of the participants and leader.

Requirements:

1. Set goals for your project.
2. Complete Cross-Country Skiing Adventures Manual
3. Give an oral presentation (speech, demonstration, or illustrated talk) related to this project.

Exhibit:

1. Member's Manual
2. Completed Project Record Book
3. Visual Display
(one of the following)
 - A poster (14x22) or display illustrating something you learned in the project this year.
 - A scrapbook of labeled pictures related to the project
 - A labeled photo story depicting something related to the project.

Guidelines:

Manual is designed as a guide. Not all activities will be completed during the first year.

First Year-Youth will Learn:

- Equipment and Dress
- Technique
- Safety
- Nutrition
- Environment

Second Year-Youth will learn:

- Must know items covered in 1st year; will build on those skills
- First-Aid
- Orienteering
- Equipment
- Plan Activity (2-3 hour trip)
- Advanced Techniques

Third Year-Youth will learn:

- Must know items covered in 1st & 2nd year; will build on those skills
- Physical Conditioning
- Plan a full day trip



LET THE ADVENTURES BEGIN!

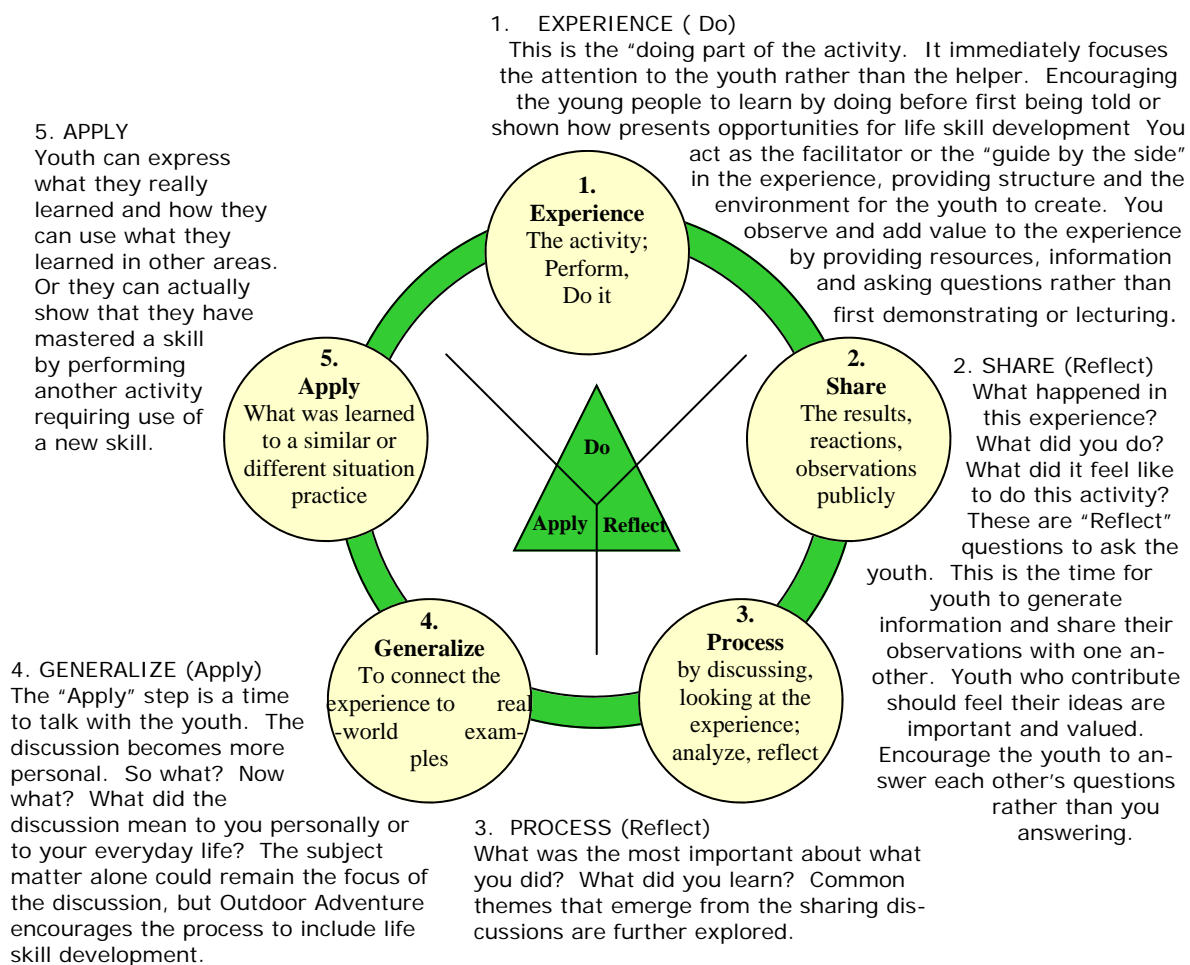
Dear 4-H Adventure/Challenge Project Members & Leaders

Adventure Life Sports, such as Cross-Country Skiing allow participants the opportunity to

- Learn more about themselves
- Develop skills in life-long activities
- Discover more about the environment and how to enjoy it
- Develop skills essential to participation in other adventure projects

The 4-H Youth Development program promotes the concept of learning-by doing before being told or shown how. The five step experiential process helps turn activities into learning experiences. The experiential process of learning engages youth in the activity, encouraging them to think more, explore, question, make decisions and apply what they have learned. You will note that each of the activities follows the five-step model.

EXPERIENTIAL LEARNING MODEL



XC SKIING ESSENTIALS

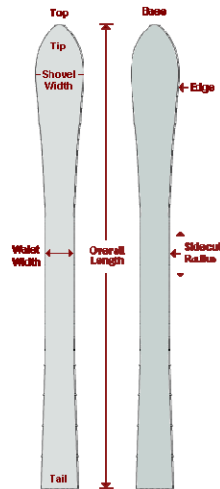
On this page you will learn about Cross-Country Skiing essentials— the gear you will need to let the adventures begin! The essentials for Cross-Country Skiing are:

- Skis
- Ski Boots & Bindings
- Poles

SKIS

Cross-Country skis should have the features that will offer a smooth surface as the skier glides on the snow and at the same time, prevent the skier from sinking too deep into the snow.

Cross-Country skis are longer, slimmer, and more lightweight than those used in Alpine Skiing. The contact points, or the glide zones, are the tips and tails of the skis. These are designed to give very little resistance when the skier is making forward moves. The camber, or the kick zone refers to the central portion of the ski. This has a pattern on the base which allows the ski to take hold of the snow when weight is pressed on it, particularly during the stepping motions.



Due to new technology and design, skis have been getting gradually shorter. No longer can you select the right length by simply raising your arm and measuring to your wrist. Body weight is much more the determining factor in addition to the type of skiing you will do (terrain) and skiing ability.

DISCUSSION TOPIC
WAX VS. WAXLESS SKIS

SKI BOOTS & BINDINGS

The motion of Cross-Country Skiing requires that your boots allow your ankle to bend and stretch while skiing. Ski boots must be both flexible and soft so that it allows the skier to bend forward and up on the toes regardless of the fact that the ski bindings are fastened to the toe of the boot.

Therefore, it is important that the binding is compatible with your ski boot. This combination features a free-heel system where the heel can lift from the ski surface. It is preferred if your bindings have heel plates which prevents sidelong movements by providing a gripping surface when the skier goes down the slope and around corners.

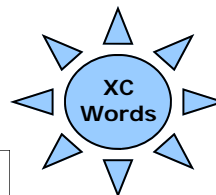


SKI POLES

The old measuring stick of under your arm pit is a thing of the past. A pole that reaches the top of your shoulder is more efficient when you climb hills. Make sure they have a comfortable, adjustable strap assembly that



allows for a full range of poling motion. If you ski on groomed, maintained trails, your pole baskets can be relatively small. If your plans include occasional touring outside of groomed areas, look for slightly larger pole baskets.



- Cross-Country Skiing
- Alpine Skiing
- Groomed
- Ski
- Ski Pole
- Ski Pole Basket
- Binding
- Camber
- Contact Points




Outdoor Skill:
 Selecting personal gear for cross country skiing
Life Skill:
 Decision Making
Success Indicator:
 Selects Equipment for a cross-country ski trip.

GEARING UP



As you get ready for your first ski trip you will need to decide what gear you need to take. It is important to consider the climate, the activity you will be doing. The gear you choose will affect your comfort and safety.

From the list below, of possible items to take with you on a Cross-Country Skiing trip, check those you believe are essential, those that



ITEM	ESSENTIAL	HELPFUL TO HAVE	NOT NEEDED
Bandana			
Pocket Knife			
Sun Protection			
Walkman			
Duct Tape			
Whistle			
Down jacket			
Cell Phone			
Flashlight/Batteries			
Mirror			
Wool/Synthetic socks			
T-shirt			
Toilet Paper			
Water			
Binoculars			
Poly-pro tops & bottoms			
Compass, Map			
Matches, Fire Starter			
Food			



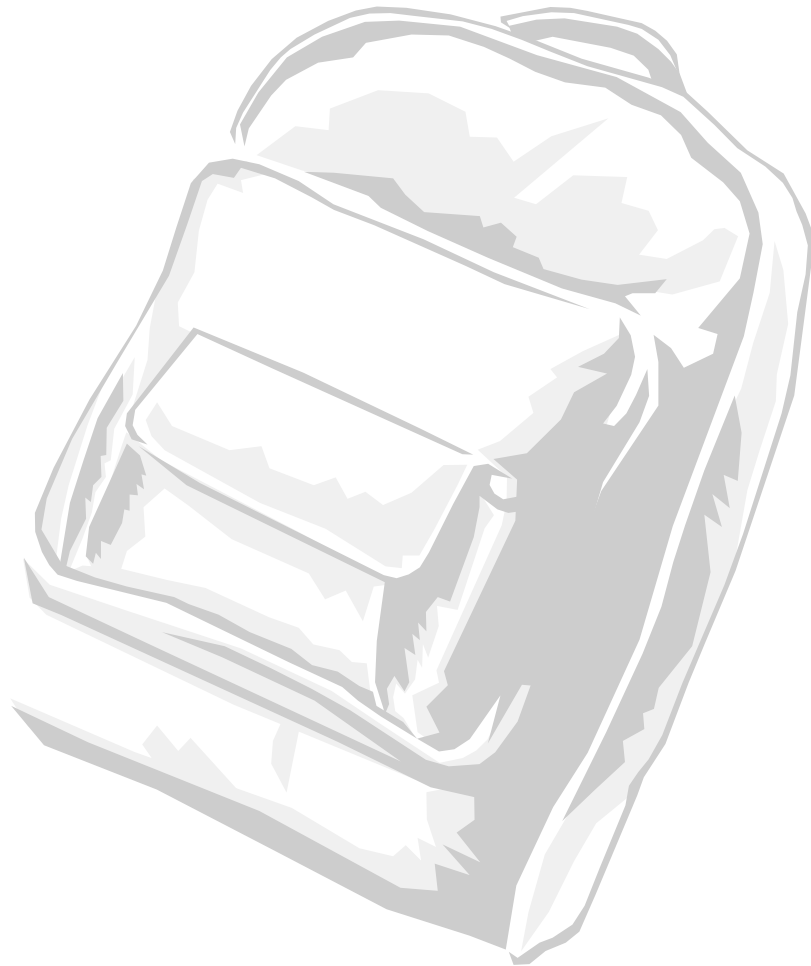
Outdoor Skill:
Packing a backpack
Life Skill:
Planning and organizing
Success Indicator:
Organizes and packs a back-
pack for a planned Cross-
Country Ski trip.

PACK IT IN PACK IT OUT



You have learned about the gear and essentials for your trip. Putting all of your essentials in a backpack will allow you to be prepared and as soon as you pack it you will be ready to go! This activity will help you learn the parts of your pack and how to pack it.

Pack the items you selected in the previous activity into your backpack or bag. Draw on the outline of the backpack where you packed each of your items. When you have everything you want to take on your day hike walk around your yard, go up and down stairs or a steep slope to see how comfortable your backpack is. Finally practice adjusting each part of your backpack so it best fits your body and your Skiing needs.



Additional Items:

you may want to pack

- Camera
- Binoculars
- Duct Tape
- Mirror
- Rope
- Toilet Paper
- Whistle
- 50' Rope or nylon cord

Safety Tips:

- A cell phone seems like a valuable item to have on a ski trip but reception may not be possible in remote locations
- Stay tuned to local weather forecasts
- Avoid Avalanche areas



MAKING TRACKS

Share the Experience

- What factors did you decide were important in selecting your backpack?
- How did you feel after carrying your pack for five, fifteen, and thirty minutes?

Reflections

- How could your choice of a backpack and your packing methods affect your skiing experience.

Now What?

- How is packing a backpack like making decisions about what resources (time, money, energy) to use in other situations?

TIPS

- Practice adjusting your backpack with different weights in it
- Make sure your headlamp or flashlight has new batteries



Selecting & Packing a Backpack

BACKPACK SELECTION

- Consider using a school backpack for a simple day trip
- You will be outside and weather conditions can change rapidly, try to select a pack that is waterproof
- Comfort is a must, you don't want an uncomfortable pack distracting from your fun. Select a pack that has wide straps that do not cut into your shoulders.
- Skiing requires movement and balance. Make sure your pack allows you to move your arms freely and distributes the weight evenly.
- If you have a pack that doesn't have a lot of compartments put your gear in colored pouches or stuff sacks to help you find the contents easily

PACKING YOUR BACKPACK

- Place heavy items close to your back and near the bottom of the pack.
- Pack lighter weight items around the heavier items—like clothing
- If you do not have a waterproof backpack or pack over store items in re-sealable plastic bags.
- Your pack may say it is waterproof but to be on the safe side, pack all fire starting materials in a re-sealable plastic bag.



MAKING TRACKS



Share the Experience

- What did you find in your medicine cabinet?

Reflections

- How do you feel about handling a first aid situation during your adventures?

DISCUSSION TOPICS

- Frostbite and hypothermia
- Snow Blindness
- Heat stroke or exhaustion
- Burns, including sunburn
- Animal and insect bites and stings
- Blisters
- Sprains and strains
- Poisonous plant and animal reactions

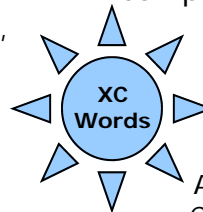
TAKE IT ONE STEP FURTHER

- Set up a first-aid safety course for your club or sign up for a CPR/First Aid Class
- Take a trip to a local hospital to learn how advanced first-aid is administered
- Ask a doctor, nurse, ambulance driver, first-aid instructor, or EMT to speak to your group
- Make a chart identifying the uses of each item in the first-aid kit
- Give a report on hypothermia, including how to protect against it

First Aid Kit Items

- Gloves (latex or vinyl)
- 1 elastic-roll bandage
- Aspirin/Ibuprofen
- Adhesive tape
- Band-aids (assorted sizes)
- Gauze pads (2x2 and 4x4)
- Moleskin, 1 or 2 packets
- Tweezers
- Triangular bandage
- SAM Splint (optional)
- Safety pins
- Scissors
- Sanitary Napkins (for bleeding wounds)
- Antiseptic/Antibacterial ointment
- Cotton swabs (sterile, packaged in pairs)
- Diarrhea medicine
- Butterfly bandages
- Gauze rolls (2)

Inspect the contents before every trip and make sure the tools are clean and supplies are in good condition. Replace expired medicines. Make a list of kit contents and keep it current. Add items you wished you had brought on the last trip. Make sure the container is durable and waterproof, stow it in an accessible compartment of your backpack.



Expiration, CPR, First Aid, Frostbite, Hypothermia, Snow Blindness, Burns, Sprains, Exhaustion, Antiseptic/Antibacterial, Airway, Breathing, Circulation, Pulse, Bandage, Dehydration, Dressing, Exposure



Outdoor Skill:
 Selecting personal gear for cross country skiing
Life Skill:
 Decision Making
Success Indicator:
 Selects appropriate outdoor clothing

SKI GEAR



As you have learned, gear selection is key to your enjoyment during your skiing adventures. In this section we are dissecting ski gear, layer by layer. Layering your clothes will allow you to add or take away clothing items during your adventure. Dressing in layers means not just wearing one big coat, it entails several items. For example thermal underwear, a shirt, then a fleece jacket topped off with a windbreaker or shell.

BASE LAYER



1. Thermal Body Shirt
2. Thermal Pants
3. Ski Socks

The base layer is the wicking layer. Do not put a cotton T-shirt under this layer. In order to stay warm the layer next to your skin MUST stay dry. Synthetic fabrics like polypropylene more perspiration away from your body to the outer layers.

MIDDLE LAYER



4. Fleece Jacket or Wool Sweater
5. Ski Pant
good pants should keep you warm and dry and allow for ease of movement

The middle layer is the insulating layer. Synthetics again are the best because they wick moisture, insulate, and are easy to pack.

OUTER LAYER



6. Hat
7. Shell
8. Gloves

The outer layer protects you from wind and snow. You lose a lot of heat through your neck and head.



MAKING TRACKS



Share the Experience

- What types of fabrics are you wearing today?
- What fabrics listed in this activity did you find in your own drawers and closets?

Reflections

- Why is cotton a poor fabric choice?
- Why do you need to know how your body gains and loses heat when you are outdoors?

Now What?

- Describe what other activities where clothing plays such an important role.

Did You Know?

Between 50-80% of your body heat is lost through your head. So, if your feet and hands are cold, put on a hat!

Body Heat Science

Outdoor clothing has two purposes. It protects you from wind, rain and snow. More importantly it insulates your body and keeps you warm. You can lose body heat in four different ways - **conduction, convection, radiation, and evaporation**

❄️ **Radiation** –all exposed skin radiates heat and that is why radiation is the leading cause of heat loss. As much as 50-80% of your body heat through your head. Items such as hats and scarves keep radiant heat loss to a minimum.

❄️ **Evaporation** - As you exercise you will start to sweat. Your body will lose heat through the evaporation of body moisture. That is why it is so important to have a good base layer of clothing. To keep you dry!

❄️ **Conduction** – grab a piece of ice from your freezer. Notice the ice immediately warms up and starts to melt –and your hand gets cold! In conduction heat flows from a warmer object into a cooler object when they come in contact with each other. On a cold day, clothing helps insulate you from cold things that you may touch.

❄️ **Convection** -Go outdoors on a breezy day (or you can do this inside with a fan). Notice how your skin gets cooler when the moving air hits it. Heat loss that occurs through convection is caused from air movement across a surface. Your body maintains a thin layer of warm air next to your skin, but wind, rain, or snow against your bare skin reduces that warm layer of air. Wind-proof clothing stops convection from making you get cold.



Outdoor Skill:
 Planning a Cross-Country Ski-
 ing trip
Life Skill:
 Planning and organizing
Success Indicator:
 Plans and organizes a Ski trip

PLAN OF ACTION



Are you ready to go Skiing? Before you strap the skis on you need a plan of action! This is your opportunity to plan your first Ski trip! There are many aspects you'll need to consider such as gear you will need, will food be needed? You may choose an area you have always wanted to explore—be sure it's within your skiing ability! These factors should be considered for each trip you take.

Answer the questions on the planning checklist below.
 Refer to "Trip Planning Questions" to help you complete the checklist.

SKI TRIP PLANNING CHECKLIST

When are you going?	_____
_____	_____
What time are you leaving and what time are you planning to be back?	What costs are involved with this ski trip?
_____	_____
Where are you going?	_____
_____	_____
_____	_____
_____	Emergency Contact Numbers
_____	_____
How are you getting there?	Other _____
_____	_____
_____	_____
Who is going (include leaders/chaperones)	_____
_____	_____
_____	_____
What activities do you have planned?	Tell a responsible adult about your trip plans—where you are going and when you plan to be back. Leave them a copy of your trip plan.



MAKING TRACKS



Share the Experience

- What do you want to learn on your Ski trip?

Reflections

- How did answering the questions help you plan your trip?
- What did you learn about planning and organizing?

Now What?

- Why is safety so important to consider when planning a trip? What safety issues are addressed with a planning checklist?

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Did You Know?

Land that has a "Wilderness" designation has restrictions that may include: required permit use, limits on group size, and prohibition against motor vehicle use. Be sure to follow all land management guidelines while Cross-Country Skiing.

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Trip Planning Questions

- ✓ **What you are doing** What date are you going to go on your ski trip? What time will you leave and return? What do you need to bring? If you are planning on going to a state park you may need to consider trail use and permits.
- ✓ **How will you get there?** Will you drive to the trailhead with your family? With friends? With your project leader? Is the trailhead accessible with two-wheel drive vehicles?
- ✓ **Who is going? Never ski alone.** It is always a good idea to have an adult/and or leader on the trip.
- ✓ **Where are you going?** Make sure you have looked over the maps before you go! Have you looked over the road map to access the trailhead? What is the terrain going to be like? Avoid avalanche areas - **Ski within your abilities!!**
- ✓ **Why are you going?** Will you simply be exploring some new trails on this trip? Are you going to working on technique?
- ✓ **What will you do when you get there?** Do you need to pack a lunch for the trail? Will you need to pack a camera or a sketch book to capture the scenery and the things you will see during your adventure?
- ✓ **Are there any costs involved with this trip?** Will you need to rent or borrow any skiing equipment (skis, poles, boots)? Will you have to go to the store and buy food/snacks for the trail? Will you need to contribute to gas expenses?



Outdoor Skill:
Learn Cross-Country Skiing
Techniques
Life Skill:
Healthy lifestyle choices
Success Indicator:
Learns, practices, and participates in Cross Country Skiing

ESSENTIAL XC SKIING SKILLS



Are you ready to go Ski? Learning to Ski on Cross-Country Skis is easy; if you can walk you can ski. However Cross-Country Skiing is difficult to learn out of a book. The best way to learn to Ski is by doing! Your leader will be able to provide instruction and guide you through the learning process. Books and other resources are useful references to remind you of something that your leader or an instructor has taught. The more references the better as different authors place more emphasis on different aspects of technique. Another way to improve your skills - practice!

Although you are learning to Cross-Country Ski by doing, it is important that you know the things your leader can teach you. What do you want to learn?

- How to stop
- How to fall
- How to get down a hill
- How to slow down
- Push-glide/Diagonal stride
- Skiing without poles
- Snowplow turns
- Traversing a slope
- Sidestepping uphill and downhill
- Step turns during the diagonal stride or during a downhill run
- Kick turn
- Herringbone
- Downhill running
- Double polling
- Stem turns
- Skating turns
- Telemark turns
- Touring in deep snow
- Touring on icy tracks
- Touring on wind scoured snow
- Finding the best route
- Racing technique
- Skating technique



SKI THE WEB

- For a guide to ski areas offered by the Idaho Department of Parks and Recreation go to http://www.idahorec.org/PDF/Xcoun_guid.pdf
- For cross-country skiing web related links visit <http://extension.ag.uidaho.edu/boundary/> Go to the 4-H & Youth link and then Youth projects



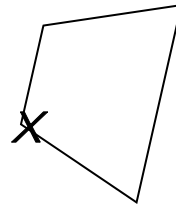
Outdoor Skill:
Practice using a compass
Life Skill:
Problem Solving
Success Indicator:
Demonstrates how to correctly
use a compass

HEADING IN THE RIGHT DIRECTION



All travel requires some type of navigation. In traveling from one point to another outdoors one uses visual landmarks, area maps, and a compass to find the route. Accurate return to your starting point will depend upon your ability to remember land marks and use of a map and compass. Have you used a compass to find your way while on an adventure? In this activity you will practice using a compass in a fun and challenging way.

1. **Making Straight Lines**-With your compass and a buddy create a North-South (N-S) straight line. Get back-to-back with one of you turning the compass to a bearing of 180 degrees (S). This person then turns around and repositions the red needle with the Orienting Arrow. Both of you walk ten steps. You have a N-S line! Now make an East-West (E-W) line. Begin with both of you facing N. One of you turns to a bearing of 90 degrees, the other to 270 degrees. When you each have walked 10 steps, you will have formed an E-W line.

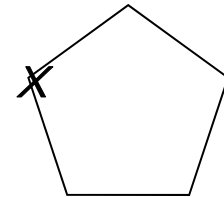


Trapezoid

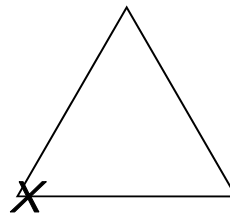
10 steps at 30
10 steps at 75
17 Steps at 210
7 steps at 300

Pentagon

10 steps at 72
10 steps at 144
10 steps at 216
10 steps at 288
10 steps at 360



2. **Making Geometric Shapes** - Gather a few markers (rocks, tennis balls, etc.) to use in creating the outlines of various geometric shapes. Place one marker at your feet where you will start making a given shape. Choose a shape that you would like to create from the list shown. Take the first bearing and follow for 10 steps. Place another marker at this point and then take your next bearing. You should try to take steps of equal length. Continue until you and your partner have created your shape.

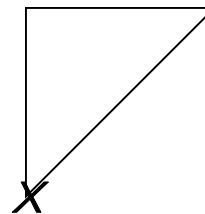
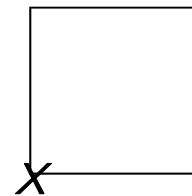


Equilateral Triangle

6 steps at 360
8 steps at 90
10 steps at 230

Square

10 steps at 90
10 steps at 180
10 steps at 270
10 steps at 360



Right Triangle

10 steps at 30
10 steps at 150
10 steps at 270



Outdoor Skill:
Use a map to find your way on the trail.

Life Skill:
Self-responsibility

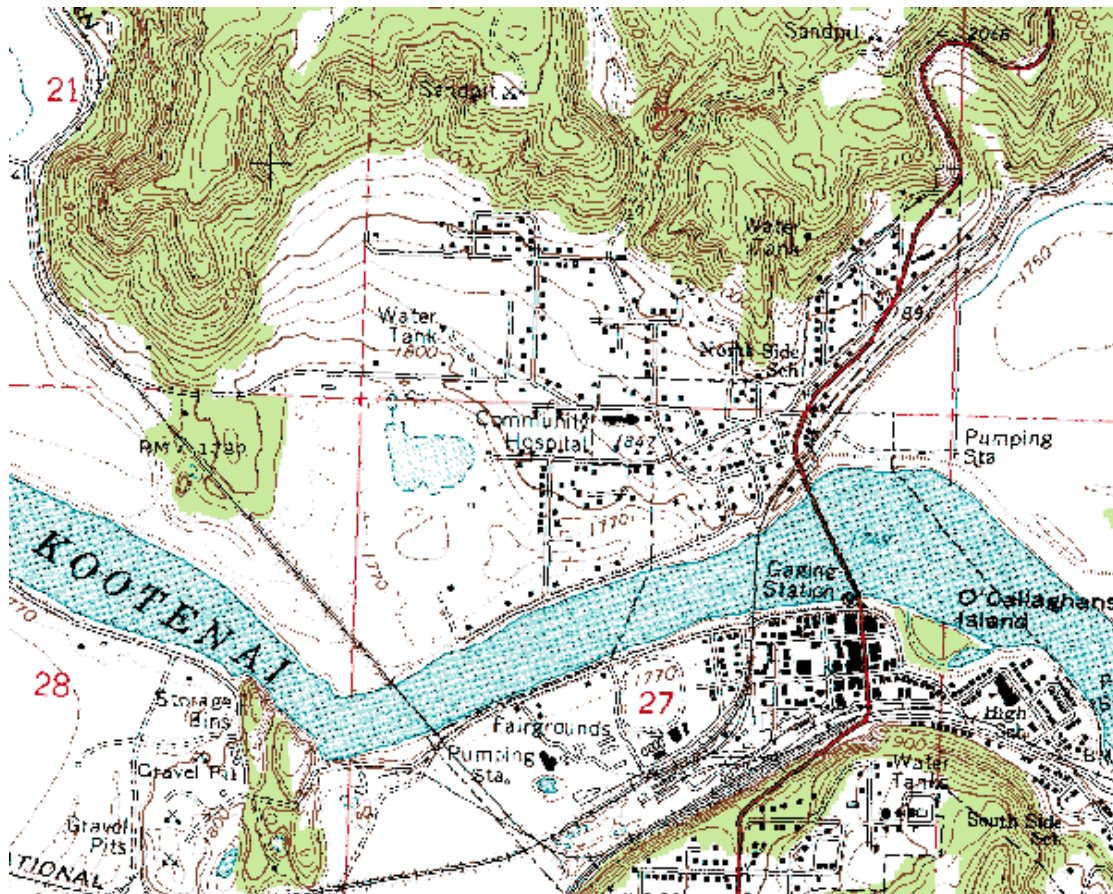
Success Indicator:
Uses triangulation to find a location

WHERE AM I?



This is not a question you want to be asking yourself as you are going down the ski trail. With enjoying the outdoors comes the possibility of getting lost. In this section you will learn to use a map and compass. Maps allow you to determine your location and route planning. The compass allows you to follow your bearings you take on the map.

How many different features can you identify on the map by matching the topographic symbols to the corresponding topographic map. Complete the map & compass activity described in *Making Tracks* for this section on the next page Good Luck!



Topographic Symbols

- Primary Highway
- Light Duty Road
- Unimproved Road
- Lake

- River
- Gravel Pit
- Building
- School
- Train Tracks

- Woods
- Trail
- Perennial lake; intermittent lake or pond



Outdoor Skill:
Study animals and plants

Life Skill:
Self-responsibility

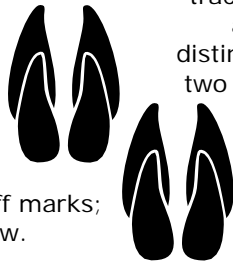
Success Indicator:
Record observations in a field notebook

WHO MADE THOSE TRACKS?

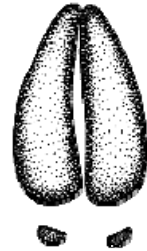


Winter adventures provide a great opportunity to learn about the movements of wildlife through observation of tracks left by birds and wildlife.

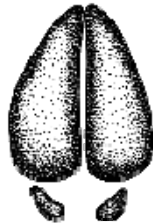
Deer are toe walkers, and hind prints are often placed on top of the front prints. Some deer will drag their feet as they walk leaving scuff marks; very visible in the snow.



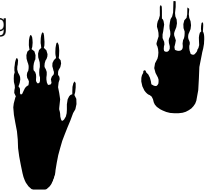
Moose tracks are slightly larger and more pointed than that of the elk and similar in shape to a deer's but twice as large. The track may be blunted if the ground is rocky and hard, making it more difficult to distinguish from the elk's. A typical print is of two pointed pear shapes with the tips closer than the wider bottom



Elk The track of an elk is larger and more rounded than that of a deer and smaller than the tracks of a moose.



Raccoon tracks are paired, having one rear foot beside one front one. The raccoon has five toes and usually the claw marks are evident in the print. The hind foot makes a print in which the toes and heel pad are joined whereas the front tracks toe and heel pad have a brief space between. The print vaguely resembles that of a miniature bear.



Black Bear They "should" be hibernating in the winter months but you never know. They are slightly pigeon-toed and the hind prints tend to overlap the front prints.



FRONT



HIND

Grizzly Bear tracks are characterized by an oval pad with five toes along the wider top of the pad on the hind feet. The front feet have a smaller heel pad and a dew claw which may be present in the print. Claw marks over twice as long as the toe pads are usually evident.



FRONT

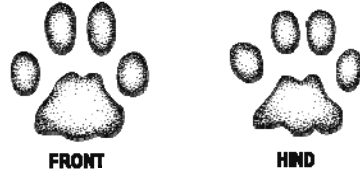


HIND

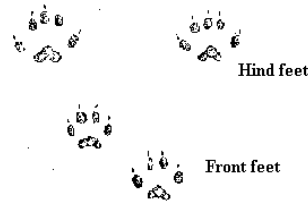
Tracks can give us much information about the presence, abundance, and habitat preferences of specific birds and animals. Keep your eyes and ears open as you explore the outdoors.



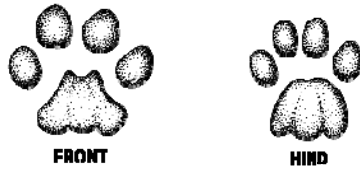
Bobcat tracks are distinguished with a round shape, four toes and no claws evident. It is generally twice the size of a domestic cat's print and loosely resembles that of a coyote or dog but is more rounded. At greater speeds the toes of the front foot spread easier than that of the hind one which has a smaller ball pad.



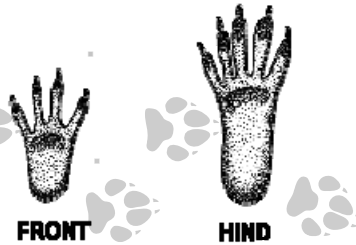
Deer Mice The two sets of tracks below show the five toes of the hind foot. Front feet have four. The tail sometimes drags in the trail, leaving a mark like the one in the photo to the right.



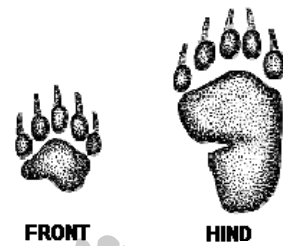
Cougar tracks rarely show evidence of the claw. The front feet are larger than the rear and generally the toes spread wider with speed. A distinctive feature of this creature in snowy areas is tail marks on the snow and they walk in a straight line.



Red Squirrel tracks are common between trees and near holes in the ground where they have dug up buried cones. Squirrels place their feet next to each other rather than one in front of the other. In deep snow their tracks are characterized by two diamond shapes next to one another. A clear imprint will reveal five long toes with claws similar to the skeleton of a human hand and may or may not have a heel print. The heel is as long again as the toes and a rough oval shape.



Skunks leave a distinct pattern which is easily identified. The smaller front feet are pigeon-toed and placed just ahead of the larger rear feet while in motion. This five-toed creature has long claws which are usually evident in the prints.



Coyote The tracks closely resembles that of a dog or fox although the coyote tends to follow a straight path across open areas where the others will wander or follow aspects of the landscape. The print is a rough oval shape with four toes bearing claw prints. The larger front foot has a much larger pad than the smaller rear foot .



Grey Wolf This animal generally travels in packs. During the snowy winter months they tend to follow the trail made by the leader to conserve energy. The front foot is larger than the rear and the toes are often splayed particularly in soft ground. The front foot track is rounded with four toes with the claws evident and the heel pad having a inverted V-shape, whereas the rear is slightly more oval with a triangular shaped pad



GLOSSARY

A

Airway-When we breathe, air passes through our airways (the tubes that carry air into and out of the lungs) to get to our lungs.

Alpine Skiing- Alpine Skiing can be considered as the general Skiing sport and it is what most skiers practice. A novice skier making his way down his first groomed slopes can be called an Alpine Skier. It can be considered as the starting point of all non- Cross- country Skiing Disciplines.

Antiseptic/Antibacterial- Destroys bacteria or inhibits it's growth.

Avalanche-Is a condition when huge masses of snow slide down a slope. This is one of the major dangers during winter.

B

Bandage- Anything that goes over the top of a wound to secure a dressing.

Base Plate -Rectangular plate on which the compass housing is mounted

Bearing-A direction of travel stated in compass degrees, relative to North

Burns-an injury cause by exposure to heat or chemicals or radiation.

Binding-The hardware that connects a ski boot to the ski

C

Camber-The "warp" in the ski. It also distributes weight evenly along the entire ski.

Cardinal Directions-The principle directions; North (N), South (S), East (E), and West (W)

Circulation-movement through a circuit; especially the movement of blood through the heart and blood vessels.

Compass-Instrument for determining directions with the help of magnetized steel swinging on a pivot.

Conservation-the preservation and careful management of the environment and of natural resources.

Contact Points-The glide zones of the skis; namely the tip and tail of a ski.

Contour Line-On a topographic map, used to represent elevation (height above sea level). They key at the bottom of the map includes the scale for each contour line.

CPR (Cardiopulmonary Resuscitation)-an emergency procedure consisting of external cardiac massage and artificial respiration; the first treatment for a person who has collapsed and has no pulse and has stopped breathing; attempts to restore circulation of the blood and prevent death or brain damage due to lack of oxygen.

Cross Country Skiing-Skiing groomed trail over varied terrain with light weight ski equipment. Bots are held onto the ski by a binding system which secures the boot at the front and along the length of the boot but allows the heel to freely move up off the ski.

G

Dehydration-Large fluid loss from the body

Direction of Travel Arrow-Arrow printed on the base plate on the outside of the compass housing. When the compass is oriented properly, this arrow points in the direction you travel.

Dressing-The material that directly covers a wound, usually gauze.

E

Etiquette-The right things to do in relation to proper trail behavior.

Exhaustion-Serious weakening and loss of energy.

Expiration-Date at which products may no longer work or be safe to use

Exposure-The harmful effects of cold or other extreme weather.

F

First Aid-Emergency treatment administered to injured or sick persons before professional medical care is available.

Frostbite-destruction of tissue by freezing and characterized by tingling, blistering and possibly gangrene.

G

Groomed-Result of mechanically working the snow to produce a more consistent skiing surface.

H

Hypothermia-Subnormal body temperature.

I

Injury-Physical damage to the body or part of the body.

Insulation-Preventing heat loss.

Intercardinal-The directions in between the cardinal compass points. For example, North-West (NW), North-East (NE), South-West (SE), and South-East (SE)

L

Layering-Term used for several layers of clothing items to aid in keeping warm, provide protection against cold and dampness.

M

Magnetic Needle-A magnetic strip suspended on a pivot that is printed red on the end that points toward magnetic north (in the northern hemisphere).

Magnetic North-The direction in which the magnetic needle of the compass points due to the earth's magnetic forces.

O

Orienteering-The skill of finding your way in the field with a map and compass combined.

Orienting Arrow-Arrow-making or parallel lines in or on housing of orienteering compass; used for setting the compass.

Orienting Lines-The lines on the inside bottom of the compass housing parallel to the North-South orienting arrow of the compass housing.

P

Pile-the yarn (as in a rug or velvet or corduroy) that stands up from the weave.

Polypropylene-A single layer 100% polypropylene rib knit that stays dry and therefore keeps your body warmer. Polypropylene yarns are hydrophobic which means that they do not retain any moisture and simply pushes the moisture vapor away from the skin. Lightweight polypropylene is perfect for any moderate activity in cold weather.

S

Scale-Located on the bottom of a map, it describes the relationship between distances on the map and actual distance.

Ski- A narrow, flat-bottomed device with a slightly pointed and upturned Tip to prevent digging into the snow.



GLOSSARY

S

Ski Pole-Tools that aid in maintaining balance. Can be used to increase speed.

Ski Pole Basket-The round, usually flat, disk located a couple of inches on top of the Ski Pole Tip. Baskets can be made of different materials, but most of the time, they are manufactured from durable plastic.

Snow Blindness-is a painful condition caused by exposure of unprotected eyes to sunlight reflected from snow. This is especially a problem at high altitude and polar regions.

Sprain - a painful injury to a joint caused by a sudden wrenching of its ligaments.

T

Topographic Map-Illustrates the surface of the Earth by using contour lines and symbols to represent certain land features, landmarks, terrain, and water.

Triangulation-The process of determining a location by taking intersecting bearings on two or more points.

True North-The geographic or "true" North Pole at the geographic top of the earth. True North is indicated on maps.

W

Wool-A fabric made from the hair of sheep; the weave of the fabric allows wool to absorb perspiration and the fabric "breathes," unlike polyester.



Additional Meeting Ideas

Are you looking for more outdoor adventure project meeting ideas? Here is a list of possibilities. Brainstorm more ideas with the participants in your group

- Packing a Lunch and Nutritious Snacks
- Identifying Parts of a compass
- Purifying Water
- Shelters
- Protection from weather conditions
- What to do if you get lost
- Preventing Hypothermia
- Preventing Exhaustion
- Performing CPR
- Obtaining Medical Assistance
- How to treat injuries
- Knot Tying
- Identifying Map Terrain
- Identifying Topographic Symbols
- Setting up an Orienteering Course

RESOURCES

Outdoor Adventures Youth Activity Guides

1- <i>Hiking Trails</i>	4HCCS BU-08043
2- <i>Camping Adventures</i>	4HCCS BU-08044
3- <i>Backpacking Expeditions</i>	4HCCS BU-08045
<i>Group Activity Helper's Guide</i>	4HCCS BU-08047

Introduction to Adventures: 4-H Adventure Project by Ted May, 4-H 444, University of Wisconsin Extension 4-H Youth Development Programs

Cross-Country Skiing

4-H Cross-Country Skiing by Jim Pease

First Aid

Field Guide to Wilderness Medicine, Paul Auerbach, Howard Donner and Eric Weisse

Wilderness 911: A Step-By-Step Guide for Medical Emergencies and Improvised Care in the Backcountry, Eric A. Weiss

Wilderness Medicine 4th Edition, Wm. Forgey, MD

Wilderness Medicine: Beyond First Aid by Wm. Forgey, MD

First Aid—The Essential Basics Copyright © 2003-2004 MaxLife-style.net ® "Go Skiing like Max!".

Hiking and Navigation

Soft Paths, NOLS

Take a New Bearing by Phyllis M. Ford

The Basic Essentials of Map & Compass by Cliff Jacobson

Wilderness & Survival

NOLS Wilderness Guide, Mark Harvey

4-H Survival Project assembled and prepared by Elayne Parrish, Edited by Charles M. Thomas, SU 1, University of Idaho Extension

