

Pathfinder Pathways...

A Publication of the Georgia-Cumberland Conference Pathfinders

October 2003

"Kids"

When I look at a patch of dandelions, I see a bunch of weeds that are going to take over my yard. My kids see flowers for Mom and blowing white fluff, you can wish on.

When I look at an old drunk and he smiles at me, I see a smelly, dirty person who probably wants money and I look away. My kids see someone smiling at them and they smile back.

When I hear music I love, I know I can't carry a tune and don't have much rhythm so I sit self consciously and listen. My kids feel the beat and move to it. They sing out the words. If they don't know them, they make up their own.

When I feel wind on my face, I brace myself against it. I feel it messing up my hair and pulling me back when I walk. My kids close their eyes, spread their arms and fly with it, until they fall to the ground laughing.

When I pray I say thee and thou and grant me this, give me that. My kids say, "Hi God!!! Thanks for my toys and my friends. Please keep the bad dreams away tonight. Sorry, I don't want to go to Heaven yet. I would miss my Mommy and Daddy."

When I see a mud puddle I step around it. I see muddy shoes and clothes and dirty carpets. My kids sit in it. They see dams to build, rivers to cross and worms to play with.

I wonder if we are given kids to teach or to learn from?

- Unknown

Outreach Activity Ideas

The NAD website has an article on Outreach ideas called *Love by the Month*. Here's one of the ideas.

Adopt a missionary. If your church already has adopted missionaries then they would be appropriate for the club to adopt. Pray at each meeting this month for them, missionary (and family, if applicable). Mail them a box of treats such as American magazines, gourmet chocolates, and toiletries. If mailed soon enough they might get the package by Christmas.

Let them know your group has prayed for them all month long. Encourage them to send a return letter to let the club know how they are doing.

Safety Tip

Stay Dry and Stay Warm Wet clothing (especially cotton) will draw the heat away from your body.

Synthetic fabrics such as pile, bunting, and fleece will help keep you warm--even when they are wet. Natural fabrics such as wool and silk are also effective at keeping you warm when they get wet. Cotton will leach the heat away from your body when wet through evaporation and conduction. Cotton also readily absorbs water and takes an extremely long time to dry. Avoid wearing cotton if you can; if cotton is all you have, then do whatever you can to keep it dry, so it can keep you warm.

God gives every bird its food, But he does not throw it into its nest.

Honor Toolbox



Indian Lore

This year's theme is *Walking in His Moccasins*, so this would be a good year to include the Indian Lore honor in your class work. We are also fortunate to live in an area that is rich in Native American history. Here are a few ideas that you might want to take your club to visit

Russell Cave - AL

Etowah Indian Mounds State Park

Kolomoki Mounds Historic Park

Ocmulgee National Monument

Red Clay State Historic Park

Old Stone Fort State Archeological Park

Mammoth Cave, KY

Cherokee, NC

New Echota Historic Site

Fort Mountain State Park

Chief Vann House Historic Site

Native American Events

MTSU American Indian Festival

500 Nations – Native Americans

American Indian – Past and Present

Craft Project Ideas

Native American Burlap Weaving

Time Required

Two 45 minute sessions

Materials

• variety of colored burlap pieces, 12" × 10"



- assorted yarns
- beads
- needles
- scissors
- 12" dowel rods
- glue gun/sticks
- name tags/pencils

Procedure

- 1. Make sure to have a completed sample made so that the Pathfinders will see what they are making.
- 2. Instructor demonstration of pulling strings out of burlap to create areas in which to weave
- 3. Vertical strings in a weaving are called warp strings, and the horizontal strings that actually DO the weaving are called weft strings. Demonstrate a variety of possibilities. Wrapping strings, weaving in over and under patterns that could change as colors change. For instance, weaving over 4 warps, under 4 warps, etc. The next color could be woven over 2 warps, under 2 warps, etc. Tying strings to bottom that hang, adding beads, fraying the ends of weaving strings, yarns, or cords.
- 4. Choose a colored piece of burlap, glue dowel to top, tape sides of dowel to table to make working easier. Make name tag and tape to dowel rod.

Native American Coil Pots

By Maria Martinez



Materials

- white clay individual chunks about 3" × 3" × 6"
- small pans for water, slip, paint, gloss medium
- trays to hold pans
- bristle brushes
- one gallon size plastic bags with ties inside and a tag stapled to open end
- soapy water buckets/dry towels/sponges
- 6" × 6" paper towel pieces
- individual circles rolled and cut approximately the size of a small coffee can
- plastic clay tools
- white slip
- sienna and blue tempera paints
- acrylic gloss medium
- paper fans

Procedure

- 1. Divide a clay chunk into 3 equal pieces and roll each new chunk into a coil. It takes a little practice, using a forward rolling motion with the hand held straight and using palms and gentle pressure. It works best to stand and use a forward rolling, then lifting, hand motion. When the clay moves toward the edge of the table, lift and move it back, starting over. It does not work well to roll the hands back and forth over the coil. Roll each chunk into a coil, then roll coil up and place in bag.
- 2. Pass everyone a paper towel and round slab circle. Instructor does a demonstration of scoring and painting slip around top edge of slab. Add coil, pressing gently, pinch off and

smooth together ends when it is wrapped around slab and they meet. Build three rows high, and then add some decorative finishes for the last two rows, such as S shapes made from coils, waves made over a finger, or rolling little balls, pinching them flat, and adding them in openings made by the wave designs. Be sure to stress that everything that is added MUST be scored and slipped. Also stress that the clay coil pot should not be picked up. Turn the paper towel as you work to build it, and the shape will not get lopsided.

- 3. Add two more coils in the same way. There are now three rows high on the slab.
- 4. The last two rows may be any design we have talked about.
- 5. Smooth out any cracks by painting water or slip over them.
- 6. Projects must dry and be fired.
- 7. Paint acrylic gloss medium tinted with blue tempera on whole top and sides of coil pot. Do not paint the bottom. Make sure you get into all the crevices with the bristle brushes and acrylic medium. Clean and dry the brushes thoroughly.
- 8. Gently fan pot till completely dry.
- 9. Paint the sienna over the whole pot covering the acrylic with sienna. Do not paint the bottom.
- 10. Wash off the sienna, leaving the brown color in the deeper parts to create an antiqued effect.
- 11. Note: If you must stop working on project before it is completed wet a paper towel and drop into bag with coils. Gather ends of bag and put on twist tie. Make sure the whole bag is closed tight. Write Pathfinder's name on all projects.

Additional Craft Project Ideas

<u>Buffalo Hides</u> – a making a sample of Petroglyphs.

<u>Parfleche</u> - An Indian envelope that held their most precious possessions, herbs and medicines.



Knot this Month

The art of tying knots is well known in small circles of fisherman, sailors, hikers, and paddlers,

and can sometimes make little sense to the rest of us; like any craft or science, there's plenty of knot jargon to learn. This year we'll try to give you some ideas of ways to make it a little more fascinating. We'll include some games and maybe a few nots (I mean knots) that you may knot (I mean not) have heard of before.

So what is a knot?

A knot is any loop or entanglement of flexible material that is intentionally or unintentionally created; securing two ends of the same material.

So when one of the Pathfinders accidentally (or on purpose) makes a mess of all your neatly stored ropes, they really have "tied" a knot.

The Rope Pyramid

Here's a competition that can help your Pathfinders learn knots all year long, and depending on the size of your club could be done by unit or the entire club. Make a pyramid shaped board with a tag for each Pathfinder. Any Pathfinder can challenge another Pathfinder on the line above him. The competition is timed and if the challenger tied all required knots correctly fastest then the tags are switched. Each Pathfinder can only challenge once a week. The top three could be challenged by anyone.

It's suggested that you start with the basic eight knots (overhand, square, clove hitch, two-half hitch, bowline, taut-line hitch, sheet bend, and timber hitch). Then add additional knots as the Pathfinders become more proficient. Possibly even having a different list of knots required to be tied for different boards.

Make it easy for the Pathfinders to have access to learning to tie knots by having appropriate lengths of rope available (with adult supervision at all times) and the directions for tying each of the basic knots. Then add the instructions for new knots as the Pathfinders get better. You know it successful if they ever ask what the new knots are going to be.

Counselor's Corner

Survival Kit

Counselor's Survival Kit

In last year's 2002 November Pathways there was an article about putting together a "Counselor's Survival Kit". We've included the information again for those of you that are new counselors. If you are a counselor and don't already have one, it's never too late to put a kit together. If you already have one, check through it and make sure you have everything that you need.

No matter how well you plan and organize there still may be times when you need a "Survival Kit". Make sure to take the survival kit to meetings and any other times when you might have to come up with something when things don't go as planned. This kit would have supplies in it to use when unexpected things happen. Don't use this kit as a substitute for planning (except for the pencils, rope and Bible).

Here's a list of some items that could be included.

- Pencils
- Crayons or colored pencils
- Rible
- Rope enough rope cut to appropriate lengths to teach about knots. Also include a couple of knot games.
- A couple of games and any supplies required. Also be sure to know how to play them, don't wait until you need them to figure it out.
- Honor information and supplies this should be an honor that could be completed in 45 60 minutes. It would help if it were one that most of the Pathfinders didn't already have. Some easy honors to do are dogs, cats and mammals.
- Keep in mind the grade that you are most likely planning for. You wouldn't include the same items when planning for 10th grade as you would when planning for 5th graders.

- Have a rainy day activity for that campout when rain wasn't forecast.
- Use the kit when you end up with twice as many Pathfinders as you planned your meeting for that week. Make sure that you have enough supplies.
- Or when you only have one Pathfinder and you planned for six. Teach one of the honors that everyone else has and that one Pathfinder doesn't. Or teach an honor that isn't on the schedule for that year.

Camp Cooking



Broccoli Omelet

Ingredients:

- 1 pouch-type broccoli in cheese sauce
- 6 eggs
- 2 tablespoons water

Instructions:

Boil the broccoli with cheese sauce according to the package, in the pouch. While it is boiling, beat the eggs adding the 2 tablespoons of water to the raw eggs. Set aside. When the broccoli is cooked, drain the water and slit the pouch (watch your fingers as the pouch is steaming). Start cooking the eggs in a frying pan, and when it's almost set, stir in the cooked broccoli and cheese sauce. Stir and cook until desired firmness.

Servings: 4 Preparation time: 10 minutes

<u>Just Recipes – Camping Recipes</u>

Hike of the Month



'The journey is the destination'

Sycamore Creek Trail – Cherokee National Forest

This is a lovely and little know trail. It presents a quiet, lovely stroll along a fine trout stream for a mile or more. The trail is relatively level, does not cross the creek, and is in quite good shape for a trail so remote. It has in the past been a jeep road which accounts for it's "missing" status in trail guides and also for the relatively easy going. There is one trail intersection with no. 86, which goes up the side of Whigg Ridge after about 1/3 mile. Trail 86 is in poor shape! Continue by the creek unless you desire a real "wilderness" experience! Sycamore Creek is quite lovely, clear and cascading. In spite of dry weather, this creek has quite a bit of water. There was one very fine primitive campsite.

It does turn and ascend Whigg Ridge with a series of switchbacks. This portion of the trail is also in good shape and the climb is moderate. Eventually the ridge top is gained and a fine view of Rough Ridge to the east is seen. The forest is this area is nearly all hardwood and the fall colors are spectacular. Once on the ridgetop, about 3 miles from the trailhead the trail deteriorates somewhat in an area that appears to have been logged. The only thing wrong with this trail is that there is no "destination" such as a waterfall, etc. The trail ends after about 5 miles at another forest service road, FS618. This is a lovely, easy trail for fall color or, in the spring, the mountain laurel should be spectacular on the sunny ridgetops!

To find this trail take whatever route suits you best to Tellico Plains. The simplest (not the shortest) is to go north on I75 to SR68 (Sweetwater exit) and then go east to Tellico Plains. Follow the signs for the Cherohala Skyway to the junction with FS345, which has a sign pointing to Bald River Falls. Go past the falls to the Fish Hatchery where there is ample parking at a visitor's parking lot. The trail number is 165 and there is a sign marking the trailhead. This trail is approximately 80 miles from Chattanooga.

For more information or to purchase a map contact:

Tellico Ranger District Route 3, Tellico River Road Tellico Plains, TN. 37385

Information from Chattanooga Hiking Club.

Camping



Backpacking 101 -

Tips for planning your route

Good route planning is the first key to a great backpacking experience. Here are some tips to help when planning your backpacking trips.

- Make sure to that there are water sources along the way.
- Is your route an in-and-out route, circular route or do you need to arrange for a pick up at the end of the trail.
- When planning the length of your trip and how far you plan to go each day make sure to plan for the slowest/weakest person. Give the fastest person an assignment.
- Be aware of the terrain, add one additional hour for each 1000 feet in elevation.
 Remember that the first day out is never what you expect. Take into consideration that some Pathfinders may have new boots, straps that don't fit, and people in bad shape.
- Avoid peak seasons and most popular trails especially if you want to get away from it all.
- Leave a plan with someone at home, let them know when you expect to return and when to send someone looking if you haven't returned. Don't plan on cell phones working. If you are using a GPS make sure to have a compass to back it up.
- Check the fire regulations in the area you will be in. At some times of the year it may be to dry for fires. Make sure that you have another way to do the cooking.
- Have a back up for every position. For long trips incorporate a rest day.
- If you've mapped out your route by yourself, make sure to have someone else look over the plan to make sure you didn't miss anything. After all two heads are better than one.

Director's Direction Communication

One of the most challenging things about being a Pathfinder director is making sure that all of the staff gets the information they need to stay up to date with everything. There are a number of ways to communicate and you are probably going to need to use several ways to meet everyone's needs.

- Announcements at a staff meeting, of course not everyone always makes it to staff meeting.
- Email, my personal favorite, but not everyone has an email address.
- Stacking trays, hanging folders, accordion folder you may want to have something like this at your Pathfinder meeting location. Put each staff member's name on a tab or tray and put the announcements, schedule changes, minutes from staff meetings, etc. in each staff's folder to pick up at the next meeting.
- Phone set up a phone chain for those times that people need immediate information.
 Assign each staff member the person next person that they need to call and their phone number.

We must use time as a tool, not as a couch.

-- John F. Kennedy

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Nature Nugget

How Many Bears can Live in This Forest?

Age: Grades 3 - 9

Group Size – any (adjust number of food squares per size group; less than 80 lbs of food per

Pathfinder)

Duration -20 - 455 minutes or longer

Settings: outdoors or indoors

OBJECTIVES

Pathfinders will be able to: 1) define a major component of habitat; and 2) identify a limiting factor.

METHOD

Pathfinders become "bears" to look for one or more components of habitat during this physically involving activity.

BACKGROUND

It is recommended that this activity be preceded by one or more activities on adaptation; basic survival needs; components of habitat; crowding; carrying capacity; habitat loss; habitat improvement; herbivores, carnivores, and omnivores; and limiting factors. See the cross references for suggestions. For additional information about black bears, see "Bearly Born."

In this activity, the black bears are the focus in order to illustrate the importance of suitable habitat for wildlife. One or more components of habitat - food, water, shelter and space in a suitable arrangement - are emphasized as one way to convey the concept of "limiting factors."

Black bear habitat limits black bear populations, especially through the influences of shelter, food supply and the social tolerances or territoriality of the animal. Shelter or cover is a prime factor. Black bears need cover - for feeding, hiding, bedding, traveling, raising cubs and for denning. With limits of space, adult bears will kill young bears or run them out of the area. These young bears must keep moving around either until they die or find an area vacated by the death of an adult.

When food supplies are reduced by factors such as climatic fluctuations, competition becomes more intense. Some adult bears might temporarily move to seldom-used areas of their home range, sometimes many miles away. They must live on what food is available in the area. These individuals may become thin and in poor condition for winter hibernation or, in the case of young bears, be forced from the area by more aggressive adults.

All components of habitat are important. Food, water, shelter and space must not only be available, but must be available in an arrangement suitable to meet the animals' needs. For black bears, shelter is especially important.

All possible conditions are not covered by the design of the activity. However, by this simple illustration, it is possible for Pathfinders quickly to grasp the essential nature of the concept of limiting factors.

The major purpose of this activity is for Pathfinders to recognize the importance of suitable habitat. Inadequate food and/or shelter are two examples of what is called a limiting factor - something which affects the survival of an animal or a population of animals.

MATERIALS

Five colors of construction paper (two to three sheets of each color) or an equal amount of light poster board; one black felt pen; envelopes (one per Pathfinder); pencils; one blindfold; five sheets green construction paper (for extension).

PROCEDURE

1. Make up a set of 2" x 2" cards from the colored construction paper for a group of 31-35 Pathfinders. Make 30 cards of each of five colors to represent food as follows:

orange nuts (acorns, pecans, walnuts, hickory nuts); mark five pieces N-20; mark 25 pieces N-10.

blue berries and fruit (blackberries, elderberries, raspberries, wild cherries); mark five pieces B-20; mark 25 pieces B-10.

yellow insects (grub worms, larvae, ants, termites); mark five pieces I-12; mark 25 pieces I-6. **red** meat (mice, rodents, peccaries, beaver, muskrats, young deer); mark five pieces M-8; mark 25 pieces M-4.

green plants (leaves, grasses, herbs); mark five pieces P-20; mark 25 pieces P-10.

(The numbers on the cards represent pounds of food.)

There should be less than 80 pounds of food per Pathfinder so that there is not actually enough food in the area for all the "bears" to survive. The following estimates of total pounds of food for one bear in ten days are used for this activity:

nuts	20 pounds = 25%
berries and fruit	20 pounds = 25%
insects	12 pounds = 15%
meat	8 pounds = 10%
plants	20 pounds = 25%
TOTAL	80 pounds = 100%

NOTE: These figures represent a typical bear's food. The components of an actual bear's diet will vary between areas, seasons and years. For example, a bear in the state of Alaska would likely eat more meat (fish) and fewer nuts than a bear in Arizona. One similarity among black bears everywhere is that the majority of their diet is normally made up of vegetative material. If you want, you can also include "water" by making an additional 50 squares of light blue paper. Mark each stack of ten cards with one of these letters: R, L, ST, SP, and M (representing rivers, lakes, streams, springs and marshes - all places where a bear could find water).

If you have a group of more or less than 31-35 Pathfinders, use this chart to help determine how many cards to make.

	10-15		17175	126-30	141-45	36-40	41-45
Nuts (N-20)	2	3	3	4	5	6	7

Nuts (N-10)	8	13	17	21	25	29	33
Berries (B-20)	2	3	3	4	5	6	7
Berries (B 10)	8	13	17	21	25	29	33
Insects (I-12)	2	3	3	4	5	6	7
Insects (I-6)	8	13	17	21	25	9	33
Meat (M-8)	2	3	3	4	5	6	7
Meat (M-4)	8	13	17	21	25	29	33
Plants (P-20)	2	3	3	4	5	6	7
Plants (P-10)	8	13	17	21	25	29	33

- 2. In a fairly large open area (e.g., 50' x 50'), scatter the colored pieces of paper.
- 3. Have each Pathfinder write his or her name on an envelope. This will represent the Pathfinder's "den site" and should be left on the ground (perhaps anchored with a rock) at the starting line on the perimeter of the field area.
- 4. Have the Pathfinders line up on the starting line, leaving their envelopes between their feet on the ground. Give them the following instructions: "You are now all black bears. All bears are not alike, just as you and I are not exactly alike. Among you is a young male bear who has not yet found his own territory. Last week he met up with a larger male bear in the big bear's territory, and before he could get away, he was hurt. He has a broken leg. (Assign one Pathfinder as the crippled bear. He must hunt by hopping on one leg.) Another bear is a young female who investigated a porcupine too closely and was blinded by the quills. (Assign one Pathfinder as the blind bear. She must hunt blindfolded.) The third special bear is a mother bear with two fairly small cubs. She must gather twice as much food as the other bears. (Assign one Pathfinder as the mother bear.)"
- 5. Do not tell the Pathfinders what the colors, initials, and numbers on the pieces of paper represent. Tell them only that the pieces of paper represent various kinds of bear food. Since bears are omnivores, they like a wide assortment of food, so they should gather different colored squares to represent a variety of food.
- 6. Pathfinders must walk into the "forest." Bears do not run down their food; they gather it. When Pathfinders find a colored square, they should pick it up (one at a time) and return it to their "den" before picking up another colored square. (Bears would not actually return to their den to eat; they would eat food as they find it.)
- 7. When all the colored squares have been picked up, the food gathering is over. Have Pathfinder pick up their den envelopes containing the food they gathered and return to class.
- 8. Explain what the colors and numbers represent. Each color is a kind of food and the numbers represent pounds of food eaten. Ask each Pathfinder to add up the total number of pounds of food he or she gathered whether it is nuts, meat, insects, berries or plant materials. Each should write the total weight on the outside of his or her envelope.
- 9. Using a chalkboard, list "blind," "crippled," and "mother." Ask the blind bear how much food she got. Write the amount after the word "blind." Ask the crippled bear and the mother bear how much they got and record the information. Ask each of the other Pathfinder sto tell how much food they

found; record each response on the chalkboard. Tell the Pathfinders each bear needs 80 pounds to survive. Which bears survived? Is there enough to feed all the bears? How many pounds did the blind bear collect? Will she survive? What about the mother bear? Did she get twice the amount needed to survive? What will happen to her cubs? Will she feed her cubs first or herself? Why? What would happen to her if she fed the cubs? What if she ate first? If the cubs die, can she have more cubs in the future, and perhaps richer, years? (The mother bear will eat first and the cubs will get whatever, if any, is left. The mother must survive; she is the hope for a continued bear population. She can have more cubs in her life; only one needs to survive in order for the population to remain static.)

- 10. If you included the water squares, each Pathfinder should have picked up at least one square representing a water source, or he or she does not survive. Water can be a limiting factor and is an essential component of habitat.
- 11. Ask each Pathfinder to record how many pounds of each of the five categories of food he or she gathered. Ask each Pathfinder next to convert these numbers into percentages of the total poundage of food each gathered. Provide the Pathfinders with the background information about black bears so that they can compare their percentages with what are typical percentages eaten by black bears in Arizona. Ask each Pathfinder to attempt to guess how healthy their bear would be. How do the bears' requirements for a diet seem to compare with the needs of humans for a balanced and nutritious diet?
- 12. Ask the Pathfinders to arrive at a class total for all the pounds of food they gathered as bears. Divide the total by the 80 pounds needed by an individual bear (approximately) in order to survive in a ten-day period. How many bears could the habitat support? Why then did only _____ bears survive when your class did this activity? Is that realistic? What percentage of the bears survived? What percentage would have survived had the food been evenly divided? In each case, what percentage would not survive? What limiting factors, cultural and natural, would be likely to actually influence the survival of individual bears and populations of bears in an area?

EXTENSIONS

1. Cut paper or posterboard into 2" x 2" squares. For a group of 30 Pathfinders, make 150 squares. Make five piles of 30 squares each. Mark each set of 30 cards with one of these letters: B, T, D, H and F. These represent: B = bedding sites, T = travelways, D = dens, H = hiding cover and F = feeding sites. For purposes of this activity, these are defined as follows:

2.

Bedding Sites Black bears are usually active in early morning and late evening, and bedded most of the rest of the day and night. Bedding sites are usually in areas of dense vegetation, steep topography, and/or large trees where the bears feel secure.

Travelways Bears require corridors of cover (made up of thick vegetation and/or steep topography) to enable them to travel between areas of food, water and shelter within their home range.

Dens Black bears we dens as shelter for hibernation from November to April in each year. Bears have been found denning in hollow logs, caves, holes dug into hillsides, under buildings and even in culvert pipes. Bears often prepare and may use more than one den, and may change dens during the winter because of disturbance or if the den leaks. Bears seldom re-use dens from one year to the next.

Hiding Cover Black bears evolved as animals that escape danger from predators and other bears by hiding in thick cover.

Feeding Sites Bears will often use areas with less cover than hiding areas or bedding sites for feeding. Feeding sites are, however, often found close to thick hiding cover to allow the bear to quickly escape danger if necessary.

NOTE: This information is based on actual research data from a study in Arizona. These components of shelter may vary slightly in different parts of North America.

- 2. In a fairly large open area (e.g., 50' x 50'), scatter the colored pieces of paper.
- 3. Have the Pathfinders line up along one side of the area. Tell them that they are to become "bears" for the purposes of this activity. Review the concept of habitat that a bear would need shelter, food, water and space in a suitable arrangement in order to survive. Do not tell the Pathfinders what the letters on the squares of paper represent. Tell them only that they represent one element or component of bear habitat.
- 4. Direct the Pathfinders to move as individual "bears" into the area. Each bear must pick up as many of the components of habitat as possible. Some competitive activity is acceptable as long as it is under control. Bears are territorial. Remember that if bears fight, which they seldom do, they can become injured and unable to successfully meet their needs for survival.
- 5. When the Pathfinders have picked up all of the squares of paper in the area, have them return to the classroom or be seated in any comfortable area. Ask the Pathfinders to separate their squares of paper into piles according to the letter on each. Using a chalkboard or large pad for a visual reference, ask the Pathfinders to guess what the letters on the green cards represent - giving them the clue that each is an element of cover or shelter for a black bear. What kinds of shelter would a bear need? What do these initials represent? Record how many bears got at least one of each kind of shelter. How many got only four kinds? Three? Two? How many got only one kind of shelter? For the purposes of this activity, only those bears with at least one of each kind of necessary shelter can survive through one year. Ask Pathfinders what would happen if a bear has all types of shelter except a den? (The bear could live from April through October, but would not have a secure place to hibernate and might not survive the winter.) Ask the Pathfinders what would happen if a bear did not have travelways? (Without travelways, home ranges become fragmented and bears are not able to reach needed food, water or other shelter.) Suggesting that the Pathfinders need one of each kind of shelter represents the importance of appropriate shelter as a necessary component of an animal's habitat. Shelter is a very important part of a bear's habitat. A bear needs shelter in which to search for food and water. Bears also need shelter for traveling through their home range; and shelter for bedding, hiding, and denning. In this activity, how many bears survived? What was a "limiting factor" for this population of bears? (Shelter.) What other things possibly could become limiting factors? (Water and space, or territory, are two examples.) Would food be a limiting factor for bears? (Yes; however bears are omnivores and can utilize many sources of food.)
- 6. Ask the Pathfinders to summarize what they have learned about the importance of suitable habitat for bears' survival. How is this similar and different to the needs of other animals?