



Great Outdoors Leader Resource

4-H Year Completion

In order to complete the 4-H year members are required to:

- Complete the **Achievement Day** requirements (as outlined below)
- Complete a **Communication** Project
- Complete a **Community Service** Activity
- Complete an **Agriculture Awareness** Activity

Achievement Day Requirements

Project Items & Record Pages

- Complete at least five (5) project activities.
- Display all tangible items. (ie. Fishing pole, bird house, first aid kit, etc.) at Achievement Day.
- Activities that do not involve a tangible item should be documented (by each member) on one of the record pages provided in this guide accompanied by a picture.
- Members can create a scrapbook if they choose, but this is not required and will not be credited as a project activity.
- Each project activity will be worth **20 marks**.

Exhibition Requirement

Members are strongly encouraged to participate in the 4-H Exhibition Circuit

- Members may choose **ONE** tangible project item to send on the Exhibition Circuit.
- Group members **do not** have to send the same items.
- Chosen item must be approved by the 4-H Specialist at the Club Achievement Day

Note

Although the group may do activities together, project members are expected to individually display their own project/activity items at Achievement Day.

The Great Outdoors

In this exciting and interactive project, members will learn about many different skills that involve the outdoors. The sky is the limit! This project can be based around Outdoor Survival, Forestry, Astronomy, Wildlife, Ocean Excursions, or a variety of all things outdoors. Some activities may include packing a first aid or repair kit, building a shelter, studying constellations, trying a new outdoor activity, learning about wildlife making a fire and playing many exciting games that will help members learn about the wonderful world that surrounds them.

Planning Your Project

- **Review & Select** the activities which you want to learn more about - *possible topic choices are included on the next page!* Leaders and/or members are also invited to research and create their own project activity.
- **Discuss** with your project leader the project activity outlines as explained in the guide. The Leader Resource (*available at the 4-H PEI Office*) does include more detailed instructions for some project activities.
- **Identify** your goals & time-line for completing chosen project activities

Helpful Resources!

<https://www.fix.com/blog/topics/outdoor-recreation/>
www.natureskills.com
www.ultimatecampresource.com
www.equipped.org/kidsrvl.htm
www.hikingwithmike.com/BeginnersTips.htm
www.simplesurvival.net
<http://littlebinsforlittlehands.com/outdoor-stem-activities-science-kids/>
<https://www.tourismpei.com/pei-confederation-trail>
<http://www.torontozoo.com/pdfs/bats-conservationguide.pdf>
<http://nestwatch.org/learn/all-about-birdhouses/features-of-a-good-birdhouse/>
https://www.foe.co.uk/sites/default/files/downloads/bee_hotel.pdf
https://www.princeedwardisland.ca/sites/default/files/publications/pei_woodland_plants.pdf
<http://islandfalconry.com>
<http://macphailwoods.org>

If you are looking for help with one of your project activities, let your 4-H Specialist know, maybe we can help you out!
Call 368-4833 or drop by the PEI 4-H Office at 40 Enman Crescent, Charlottetown.

A Leader Resource is available at the 4-H PEI Office. This resource includes detailed instructions for some of the suggested Exhibition items listed in this Member Guide.

Members are encouraged can even go a step further and explore the internet for insightful, learning activities!!



Project Activity Ideas

Activity 1 - Wooden Fishing Pole

- Using a stick, fishing line, hook, spool, wire, bobber and screws create a homemade wooden fishing pole!



Activity 2 - Making Paper

- Paper making is a great way to recycle and save our trees!
- Ask your 4-H Specialist for a copy of our recipe and instructions.



Activity 3 - Forestry

- What is the difference between a softwood and hardwood tree? Learn all about trees and visit a local woodlot!



Activity 4 - Collecting Tracks

- Winter time is a great time to go for a hike and see what animal tracks you can find!
- Make a plaster cast of a wild animal track.



Activity 5 - Fire Safety & Building Fires

- Learn the basics of starting a fire and how to make a fire starter using natural materials.
- Try some outdoor cooking recipes.
- Learn how to be fire safe in the wilderness!

Activity 6 - Excursions

- Try something new - hiking, snowshoeing, canoeing, cross country skiing, kayaking, fishing and more!



Activity 7 - First Aid

- One of the most important things that you should pack for the Great Outdoors is a First Aid kit.
- Create your own first aid survival kit - keeping in mind other items that could come in handy!



Activity 7 - Sea Glass

- How is sea glass formed? What "types" of sea glass can be found on PEI?
- Learn about the process of sea glass, see what you can find and maybe even try to make your own!



Activity 8 - Astronomy

- Learn the names of constellations and planets, build a constellation can or sundial, study the stars, research a famous astronomer... the possibilities are endless!

Activity 9 - Bird Watching

- Learn how to identify birds, their habits and their life cycle.
- Create homemade bird feeders that you can mount in your yard or somewhere in your community.



Activity 10 - Local Watershed Group

- Visit your local watershed group and volunteer to help with a new or ongoing project in your community.



Activity 11 - Survival

- Do you know how to read a map, operate a compass or build a shelter in case of an emergency? Learn how to survive in the outdoors!



Activity 12 - Camping Trip

- Plan a camping trip! Put your new survival, fire making and outdoor knowledge to use.
- Don't forget to make a packing list and learn about camping "necessities."



Activity 13 - Geocaching & Mapping

- Learn how to properly read a map, what certain symbols mean and how to make a route when travelling.
- Discover the wonderful world of geocaching!

Project Activity Ideas



Activity 14 - Flowers, Moss, Lichens & Ferns

- Discover what plants grow wild in your region. Learn their names and create a personal “plant inventory”
- By drying & pressing plants you will easily be able to mount samples to paper and create a field guide.

Activity 15 - Seed Samples

- In the fall begin collecting seed samples - from the garden, side of roads and in the forest. When the spring weather arrives try planting the seeds!



Activity 16 - Rails to Trails

- Did you know that PEI has trails tip to tip? Are you up for the challenge!? See how many trails your project group can tackle and learn about what makes each trail unique.

Activity 17 - Eye on Energy

- How can you play a role in creating a sustainable future? Gain a greater appreciation of the importance of energy, become aware of alternate forms and learn how they impact the environment.

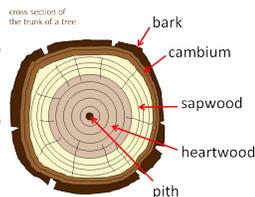
Activity 18 - Tying Knots

- Learn how to tie various types of knots that can help you not only when you are working or exploring outdoors, but in everyday life!



Activity 19 - Tree Disc

- How do I know how old a tree is? Create a tree disc and learn the cross section of a tree trunk.



Activity 20 - Bee Hotel

- Create a bee hotel to help our pollinators! This type of structure will attract solitary bees who do live in hives. This species lives alone and are known to be less aggressive as they are not protecting their hive.

Activity 21 - Animals

- Explore PEI wildlife, habitats, life cycles and what you can do to help protect ecosystems.
- Choose a specific animal that you would like to study, learn more and “track”



Activity 22 - Forage for Food



- PEI has lots of edible wild plants. Do you know how to find them? Have you tried them?
- In this activity, learn what you can and can't eat... Try out a recipe from the Island Woodland Plants guide!

Activity 23 - Trapping, Taxidermy & Hunting

- Trapping, taxidermy and hunting have a long history on PEI and still today there is a lot of interest.
- Learn safe trapping and hunting practices. Take a hunting course! Visit a taxidermy shop.

Activity 24 - Birds of Prey

- Complete an educational presentation with Island Falconry Services (falconrypei@gmail.com)
- Contact MacPhail Woods Forestry Project (902- 651-2575) and go on an “Owl Prowl!”



Activity 25 - Endless Ideas

- The options for Outdoor Project Activities are ENDLESS! Aside from the provided *suggestions*, you are invited to explore your own ideas that relate to the Outdoors.

New Format. New activities. New ideas.

- In its first year of the new project format, the 4-H staff welcome any feedback, questions or concerns about the Outdoors Project. Please do not hesitate to get in touch. Further instructions are provided in the Leader Guide.
- If you have an idea or topic in mind for a project activity that relates to the outdoors, be sure to talk to your project leader! As you will note in Activity 25 - the ideas provided are suggestions; the new format allows you to review, discuss and select activities that interest you and your fellow 4-H project members. Have fun with it!

Exhibition Requirement

- Members may choose **ONE** tangible project item to send on the Exhibition Circuit.
- Group members **do not** have to send the same items.
- Chosen item must be approved by the 4-H Specialist at the Club Achievement Day

Examples of Exhibition Display Items

Homemade Wooden Fishing Pole

Suggested Materials: 10" stick (thicker on one end than the other), fishing line, hook, spool, thick wire, floating bobber and screw rings



Cast of a Wild Animal Track

Suggested Materials: A track to cast, Plaster of Paris, mixing container, water, paper clips, cardboard and possibly a small shovel. Small box for display.



Bird Feeder

Suggested Materials: Wood, nails or screws, tools and paint



Bat House

Suggested Materials: Wood, caulking, nails or screws, tools and paint



Personal Plant or Leaf Collection

Suggested Materials: Samples, magazine/catalog/phone book, paper towel, press, "sticky page" photo album or binder, paper and clear packaging tape



Knot Display

Suggested Materials: Rope, string, board for mounting



Map Drawing

Suggested Materials: Paper, coloring pencils or markers, ruler, plastic page protector for display





Know Your Team



Leader's Name

Email

Phone Number

Member's Name

Email

Phone Number

4-H Specialist

The staff at the PEI 4-H Office are here to help you please contact us if you have any questions, concerns or ideas.

Website: www.pei4h.ca

Phone: (902)368-4833

Email: pei4h@gov.pe.ca



Project Meetings



Most projects will require at least six to eight project meetings to complete the project.

Meeting Date

Location

Time

At this meeting we...

Member Requirements

This page must be filled out and on display at Achievement Day.

COMMUNICATIONS PROJECT

What did you do to complete this activity this year?

What do you feel you learned from participating in this project?

What area of Communications project will you work to improve on for the next 4-H year?

AGRICULTURE AWARENESS ACTIVITY

What did you do to complete this activity this year? (Either on your own or with your 4-H Club).

What do you feel you learned from participating in this project?

What area of Agriculture would you like to explore in the future? Please explain why.

COMMUNITY SERVICE ACTIVITY

What did you do to complete this activity this year? (Either on your own or with your 4-H Club).

What do you feel you learned from participating in this project?

What will you do in the future to give back to your community?



Meeting Activity Record #1

For each completed project activity, unless a tangible item will be on display, a record sheet must be completed by the member and on display at their Achievement Day to receive credit for this Topic/Activity.

Date _____

Activity # _____ and/or Topic _____

Complete the following questions FOLLOWING Activity Meeting

Briefly describe the activity and/or topic that you participated in:

What I learned from this activity: _____

My favourite part of this activity: _____

Please include a photo or drawing of the activity in this space



Meeting Activity Record #2

For each completed project activity, unless a tangible item will be on display, a record sheet must be completed by the member and on display at their Achievement Day to receive credit for this Topic/Activity.

Date _____

Activity # _____ and/or Topic _____

Complete the following questions FOLLOWING Activity Meeting

Briefly describe the activity and/or topic that you participated in:

What I learned from this activity: _____

My favourite part of this activity: _____

Please include a photo or drawing of the activity in this space



Meeting Activity Record #3

For each completed project activity, unless a tangible item will be on display, a record sheet must be completed by the member and on display at their Achievement Day to receive credit for this Topic/Activity.

Date _____

Activity # _____ and/or Topic _____

Complete the following questions FOLLOWING Activity Meeting

Briefly describe the activity and/or topic that you participated in:

What I learned from this activity: _____

My favourite part of this activity: _____

Please include a photo or drawing of the activity in this space



Meeting Activity Record #4

For each completed project activity, unless a tangible item will be on display, a record sheet must be completed by the member and on display at their Achievement Day to receive credit for this Topic/Activity.

Date _____

Activity # _____ and/or Topic _____

Complete the following questions FOLLOWING Activity Meeting

Briefly describe the activity and/or topic that you participated in:

What I learned from this activity: _____

My favourite part of this activity: _____

Please include a photo or drawing of the activity in this space



Meeting Activity Record #5

For each completed project activity, unless a tangible item will be on display, a record sheet must be completed by the member and on display at their Achievement Day to receive credit for this Topic/Activity.

Date _____

Activity # _____ and/or Topic _____

Complete the following questions FOLLOWING Activity Meeting

Briefly describe the activity and/or topic that you participated in:

What I learned from this activity: _____

My favourite part of this activity: _____

Please include a photo or drawing of the activity in this space

Wooden Fishing Pole



What you will need:

- One 10' stick which is thick on one end and thin on the other. At the thinner side make sure that it is at least $\frac{1}{2}$ inch thick. This much thickness is needed to support weight of 10 - 15 pound fish.
- Fishing line & hook
- A spool & thick wire
- Floating bobber
- Small screw rings which you can find in local convenient store.
- Wood varnish

Steps:

1. Paint the stick with wood varnish for and let it dry for 2 days. This will protect & prolong the life of the rod.
2. Wind the fishing line onto the spool - an old thick wooden spool would be an ideal choice
3. Install the spool at the base of the rod. Take a thick steel wire and wind it tightly around the rod. Insert the spool from the other end of the wire, leaving behind a $\frac{1}{2}$ inch length next to the spool and cut off the excess. Bend the $\frac{1}{2}$ inch length towards the spool to prevent the spool from falling off.
4. Insert the screw rings at various points along the rod. These screw rings will act as the support for the fishing line. Install them at gaps of 1 foot on the rod and make sure to install one on the edge of the rod.
5. Thread the fishing line from the spool through the hooks. Extend the line 2' past the end of the rod. At 1' secure the bobber and at the end of the line, secure the hook.
6. It would be a good idea to secure the hook on one of the screws and tape it in place when you are not using the rod.

Plaster Cast of Animal Track

Source: www.bear-tracker.com / Members can use a different pattern

What you will need:

- A track to cast (see below!)
- Plaster of Paris
- Mixing container
- Water
- Paper clips
- Cardboard strip / bottomless plastic container

Note:

If you are near a water source, you may not need to carry water with you. Also, you may not need the cardboard strip, although it is recommended to make a thick cast, especially when using Plaster of Paris, which can break and needs the extra thickness to make a more sturdy cast. You can also add dry twigs, wire, or string to the plaster cast to reinforce it.



Find a track. Look in areas where tracks will be easy to find like around a river bank. Areas like this could have mud, wet sand, and in the wintertime snow. These are ideal "mediums" to cast a track since tracks generally hold their shape very well in moist ground. The track should be deep and well-defined in order to make a clear cast.



Use your cardboard strip to build a wall around the track. Hold it in place with the paper clips. Be careful not to damage the track! Gently press the strip into the surrounding soil so the plaster will not run out from under it when poured.



Mix the plaster - use about two parts plaster (2 cups) to one part water (1 cup). The consistency should be similar to pancake batter. Plaster can not be premixed as it will begin to set as soon as they make contact. You must be organized (pre-measure quantities) and work quickly! Be sure to mix long enough to get rid of all lumps.



Carefully pour the plaster into your mold. Do not pour the plaster directly into the track as this can damage it. Pour the plaster onto the ground next to the track and allow it to run into the track. Start with the finer details, such as claw marks. *An alternative method is to pour the plaster onto a spatula or spoon held low over the print and let it run off into the track.* Make sure you fill in all details of the track with plaster. Pour it relatively thick to make a good strong cast. This is the time to add any reinforcing materials such as string, wire, or twigs. Once you have finished pouring, let the track set for at least 1/2 hour. Some types of plaster may take longer to set.



As the plaster dries, it will go from a glossy wet appearance to a dull matte appearance. It will give off heat as the chemical reaction takes place. After about 1/2 hour, you can gently touch the surface to see if it is dry or soft. Do not press too hard as you could crack the cast. If it is dry, you can try tapping it gently with your knuckles. If it is firm, pick it up by reaching underneath it and lifting it. Do not lift by prying under it with a stick - this could crack it. Try to lift it from opposite edges. If it is cast in mud, the mud may hold it firmly. You may need to carefully dig out some of the mud or soil from beneath the cast before lifting it.

You now have a **negative cast**. For a positive cast, or a duplicate of the original, grease negative cast with light oil or petroleum jelly (vasoline) and repeat the casting process.

Achievement Day Suggestions

To make your cast more attractive, build some form of display case - a small box lined with moss, grass, etc. Your cast should be easy to distinguish as a specific animal, plaster should be even with no cracks or bubbles and rough edges, lumps, etc. should be smooth and clean.



Making Paper



What you will need:

- Blender
- 500mL warm water
- 10 grams of cornstarch
- Rolling pin
- Large pan (to catch water)
- Two squares of white felt cloth
- One piece of screen - *an old window screen works well*
- Several sheets of newspaper or letter paper, flyers, etc.
- Old table cloth

Steps:

1. Place a half sheet of newspaper (torn in 1" strips), cornstarch and water in the blender. Mix until soupy.
2. Hold the screen over a large pan and pour the mixture from the blender over the screen. Allow water to drain.
3. Lay screen on covered table. Place one piece of felt on top of the paper "mush" and press down.
4. Flip over and carefully remove the screen
5. Cover with second felt piece and roll with the rolling pin to remove excess water
6. Let the paper dry for a few days or place between two dish towels and iron on low

Suggestion

Experiment with different colors and add ins, such as dried flowers, paper flecks, sparkles, etc.

Single Chamber Bat Box Plans

Source: <http://www.torontozoo.com/pdfs/bats-conservationguide.pdf> / Members can use a pattern of their choice

This basic house will accommodate a small colony of bats. Small houses like this should be mounted on the side of a heated building to obtain a sufficient amount of heat to attract bats.

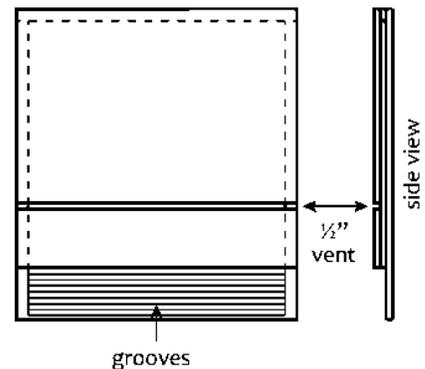
Bats need a rough surface to hang from. Don't forget to use rough-cut wood or score the inside of the box. Alternatively, you can line the inside of the box with 0.3 cm plastic mesh netting which is available in hardware stores.

You may also lengthen or add a partial bottom to the box to ensure that predators, such as cats and raccoons, cannot reach inside. Longer vertical partitions allow for greater temperature variance within the box. Bats can move up for maximum warmth or climb down to cool off.

The boxes are bottomless so fecal material drops out. No cleaning necessary! Bats can take a while to investigate a new premises; if your box is not occupied within three years, try moving it!

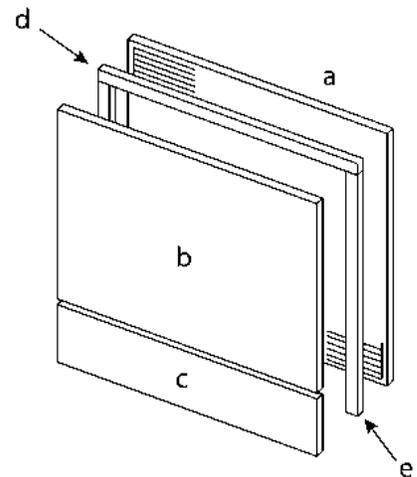
What you will need:

- 1/4 sheet of 1/2" plywood (*outdoor grade/not treated*)
- 1" x 2" x 8" furring strip
- Latex caulking
- Nails or screws
- Dark colored, water based paint



Steps

1. Cut the following pieces of plywood:
A) Backboard 26 1/2" x 24" **B)** Front (upper) 16 1/2" x 24" **C)** Front (lower) 5" x 24"
2. Cut furring strip into the following pieces:
D) Top spacer 24" **E)** Side spacers (2) 20 1/2"
3. Roughen the inside of the backboard by cutting shallow horizontal grooves 1/2" apart
4. Apply caulking to the backside of each furring strip and screw them to the backboard. Use at least three screws for each strip.
5. Apply caulking to the front side of each of furring strip, and screw the front pieces (upper and lower) to the strips. Leave a 1/2" vent between the upper and lower pieces.
6. Apply caulking to all gaps along the sides and top of the house to fully seal the chamber.
7. Apply up to three coats of paint to the exterior. Do not paint the inside of the box.
8. Mount the box on a vertical surface, such as the side of building.

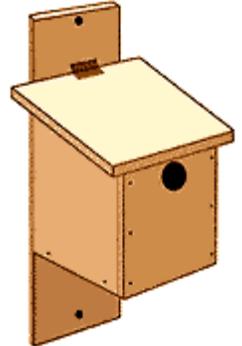


Tree Swallow Nest Box Plans

Sample Pattern: <http://nestwatch.org/wp-content/themes/nestwatch/birdhouses/tree-swallow.pdf>
Members can use a pattern of their choice

This has everything swallows look for in a new home. It's made of unpainted wood and has adequate drainage and ventilation, no outside perch, and an entrance hole exactly 1½ inches in diameter.

The swallow box should be mounted 5 to 12 feet high and placed in an open, sunny spot where the birds can fill up on flying insects. The time to put it up is in early spring, when swallows are looking for a dry, safe place to raise their young.

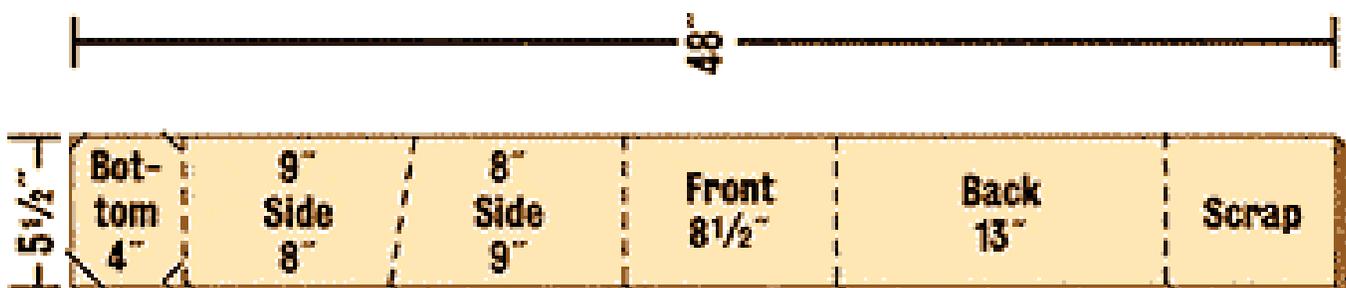


What you will need:

- One 4-foot length of 1" x 6" (1" x 5½") pine board
- 16 sixpenny galvanized nails
- 1 scrap piece of exterior plywood, at least 6" x 8"
- 1 small brass hinge with screws
- Tools: hammer, hand saw, circular saw and table saw, drill with 1/4" bit, keyhole saw or 1 1/2" bit, for entrance hole

Steps

1. Saw the pine board into six segments. Note that each side piece is cut at an angle so that the front edge is 8" long and the back is 9".
2. Saw 3/8" off the corners of the bottom piece, for drainage.
3. Drill or saw an entrance hole 1 1/2" in diameter, with the top edge about 1 1/8" from the top of the front piece.
4. On the inside of the front piece, carve some shallow horizontal scratches with a nail. This helps the nestlings get a grip as they try to climb out of the box.
5. Nail the two sides to the bottom, using two nails hammered 1" in from the corners.
6. Drill 1/3" mounting holes in the top centre and bottom centre of the back.
7. Nail the front and back to the sides, using three nails along each edge.
8. For ventilation, drill two 1/4" holes along the top of the side pieces.
9. Cut the roof from the scrap plywood so that it overlaps the sides and front. Saw the plywood's rear edge on a slight bevel to butt against the back piece. Attached the roof to the back with the hinge.



Plant or Leaf Collection

Making a tree or plant identification collection is not only interesting, its fun! Each project member must make a collection of twelve different Island trees, plants, ferns, mosses or lichens. Each sample should be represented by a well-formed leaf , flower, or small sample (ie. Needles and mosses).

What you will need:

- Gather your samples
- Old magazine or catalog
- Paper towel
- Heavy objects for pressing
- Display book or binder, **OR** “sticky page” photo album
- Clear packaging tape and paper



GATHERING YOUR LEAVES AND NEEDLES

When **gathering your** samples, try to collect fully grown specimens. Young leaves and/or plants do not represent the true size, and they often turn dark because of their high water content. Gather only healthy, well-developed samples and avoid those which have been torn or damaged. Be sure to pick more than one sample of each specimen (ie. 2-3) just in case!



As you gather your samples, you will want to **keep the materials fresh**. You will need to bring an old magazine, catalog, or phonebook with you, along with some paper towels. As you collect each sample, carefully place it flat between two pieces of paper towel inside the pages of the magazine to protect it from damage. Be sure that none of the leaves or flower petals are folded over.

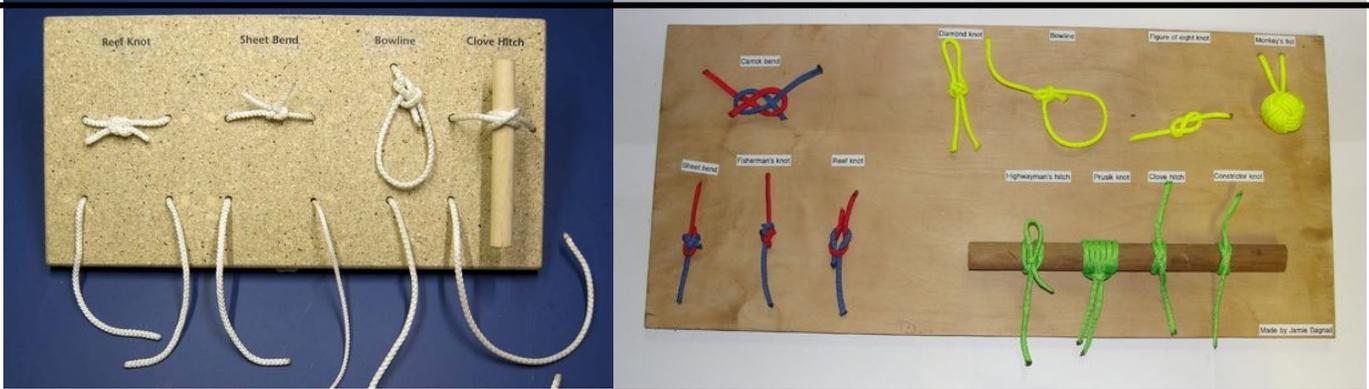
Your specimens will need **further drying and pressing time**. The simplest press can be made using a stack of heavy books on top of your magazine. Wooden presses can be obtained or constructed, but they may be costly and time consuming.

If you would like to make a **homemade press**, place a piece of plywood on a flat surface in a dry room (*if you keep it in a damp area the leaves may mildew or mold*). Place a piece of cardboard over the sheet of plywood, then put several pieces of folded newspapers over the cardboard. Place one sample flat on the newspapers. Cover with new newspaper, and cardboard, more newspaper, and another sample. Continue this “sandwich making” process until all your samples are in the press. When your samples are all in the press, add another piece of plywood and put a heavy object on top.

Allow 10 to 14 days for pressing. It’s a good idea to check the newspaper or paper towels a few days after pressing to ensure that they are not too wet. You may need to change some of them or the samples will become moldy. One change is probably enough.

When dry, samples need to be **mounted on the pages** of a display book. Remember to handle the dried samples carefully, as they break easily! For your display book a “sticky page” photo album works perfectly, but if you wish you can make your own booklet using paper and clear packaging tape to mount samples. Mount your specimens separate pages and in the lower right hand corner of the page print the common name of the sample, where it came from, and the date of collection. Spelling is important - be sure to double check! Don’t forget to create a cover for your collection.

Knot Display



Great step by step knot instructions found here! <https://www.fix.com/blog/knot-tying-guide/>

What you will need:

- Rope or string
- Piece of wood, cardboard, etc. for mounting
- Tacks, tape, etc.

Knot Samples that should be included

Square Knot

A simple knot that everyone should know is the square knot. It can be used to join the ends of two ropes together if they are nearly the same size. If your shoe lace breaks, you would use this knot as an emergency repair. It is also very useful in tying first-aid bandages.

Sheet Bend Knot

If you have ropes of different sizes that you wish to joint together, try the sheet bend. It is made the same as a square knot, but take the end of the smaller rope and cross it under the other piece of the smaller rope at B, and then up and over the thicker rope at C.

Half Hitch Knot aka Tout Line Hitch Knot

The half-hitch is a quick method for securing a boat line or tent line to a post, mooring ring, or tree. These knots are commonly used in pairs.

Clove Hitch Knot

The Clove-hitch is used in situations where a half-hitch could be used. All lashings begin with a clove-hitch.

Bowline Knot

The bowline is often used by sailors for rescue work because it forms a fixed loop which will not slip under tension. It is made in two steps—first a small loop is made as illustrated, then A is brought under B at C, brought on top of B at D and again under at E. If you need a loop at the end of your rope that will not change size or draw tight, you need a bowline. It is the best knot to use to tie a rope around an animal's neck.

Knot Samples

Knot instructions found here! <https://www.fix.com/blog/knot-tying-guide/>

• SQUARE KNOT •



DIRECTIONS

1. Lap right over left.
2. Tie again in reverse direction—left over right.

USES

1. Tying bandages
2. Tying packages
3. Joining sections of survival cordage
4. Tying shorter ropes together
5. Tying a bundle of firewood

• SHEET BEND •



DIRECTIONS

1. Bend the thicker/more slippery rope into a “J” shape or fish hook.
2. Pass the other rope through the fish hook from behind.
3. Wrap around the entire fish hook once.
4. Tuck the smaller line under itself.

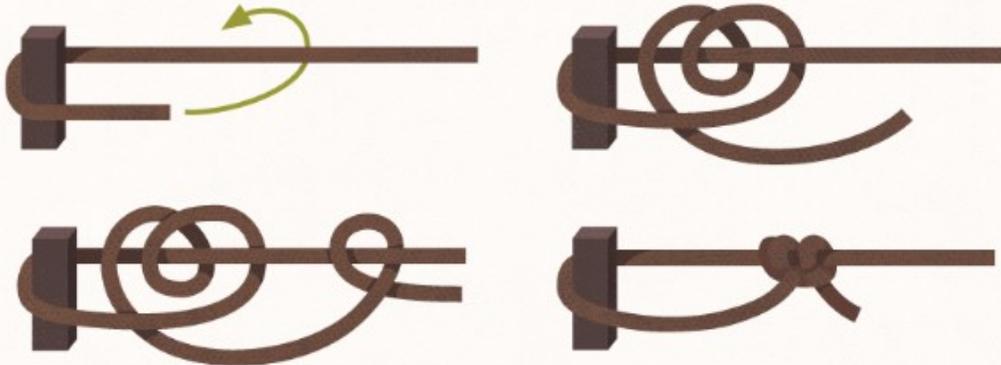
USES

1. Joining two ropes with different diameters together

Knot Samples

Knot instructions found here! <https://www.fix.com/blog/knot-tying-guide/>

TAUT LINE HITCH



DIRECTION

1. Wrap rope around a post or tree several feet from the free end.
2. Coil the free end twice around the standing line, working back toward the post.
3. Make one coil around the standing line on the outside of the coils just made.
4. Tighten the knot and slide it to adjust the tension.

USES

1. Anchor a tent
2. Grips well when taut

TWO HALF HITCHES



DIRECTIONS

1. Wrap around post/tree.
2. Wrap around the line in the same direction twice.
3. Pull tight.

USES

1. Secures line to trees, poles, or rock

Knot Samples

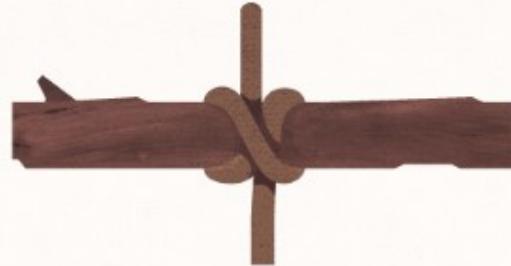
Knot instructions found here! <https://www.fix.com/blog/knot-tying-guide/>

• CLOVE HITCH •



DIRECTIONS

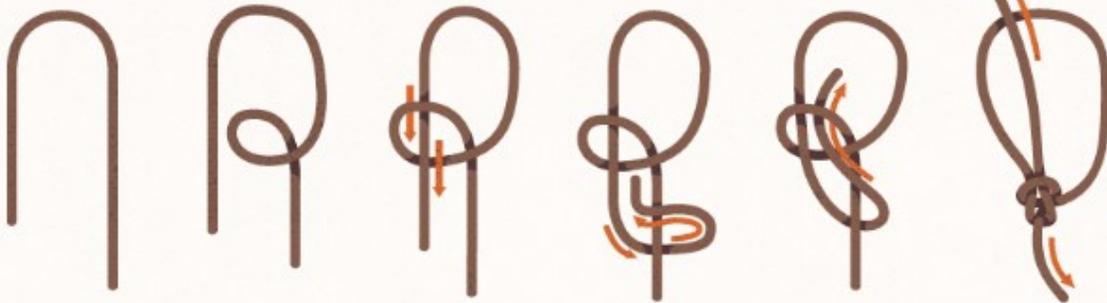
1. Make a loop of rope around the tree.
2. Make another loop and pass the free end of the rope under the second loop.
3. Tighten.



USES

1. Securing a line to a tree or post quickly; may slip if other knots are not used to back it up
2. Fasten a shelter together

• BOWLINE •



DIRECTIONS

1. Form a small loop on end of rope.
2. Pass the free end of the line through the loop, bring around behind the line.
3. Bring free end down in the original loop while maintaining the secondary loop, which will become the bowline loop.
4. Pull end up to tighten.

USES

1. Creates a loop at the end of a rope that won't shrink, slip, or expand
2. Securing a trap
3. Mountain climbing