

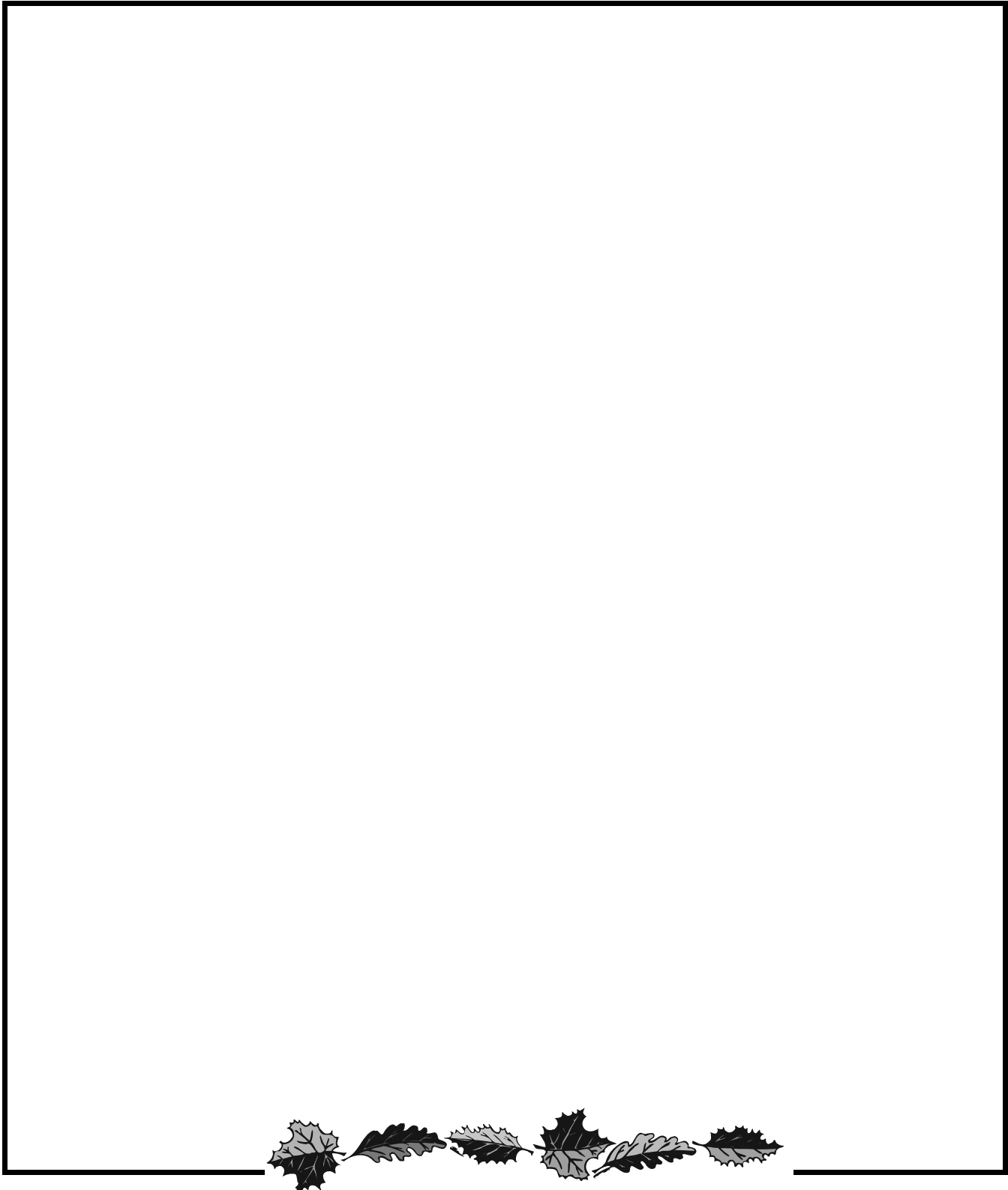


Draw here some of the animals and plant life you already know live in the woods.

OBSERVATION 9

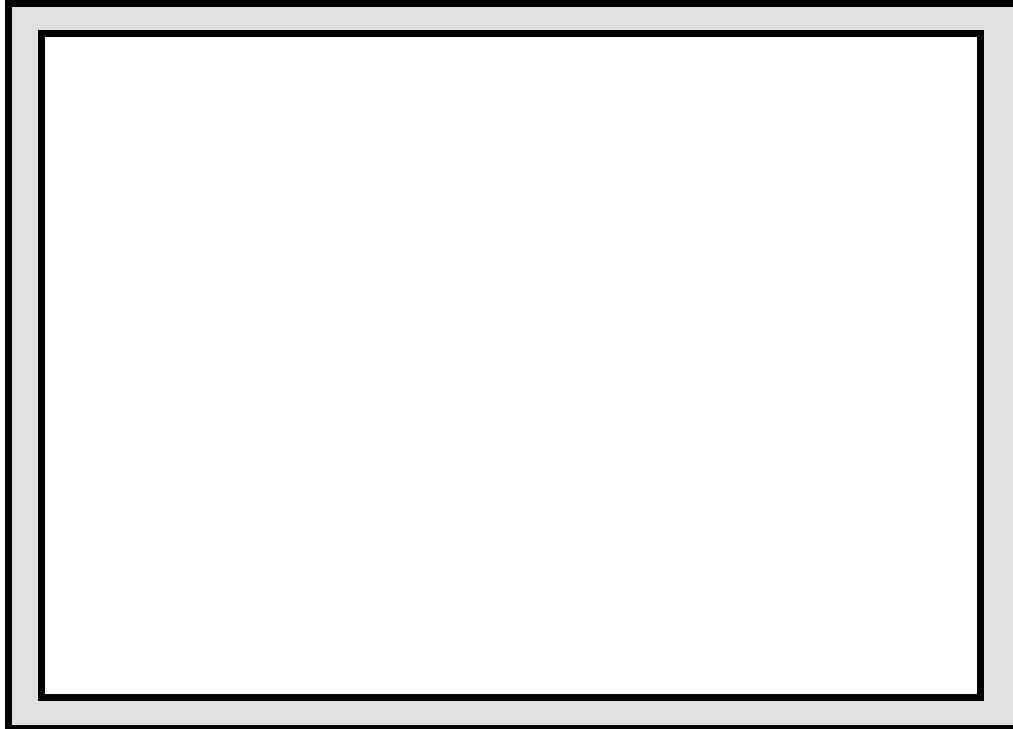
Make a Map of Your Small Square

Head out to your "Small Square," taking with you this book. Below, draw a map of your Small Square. Be sure you draw any trees or plants, rocks, fallen leaves, and any insects or wildlife you see.



OBSERVATION 10 - Your Tree in Fall

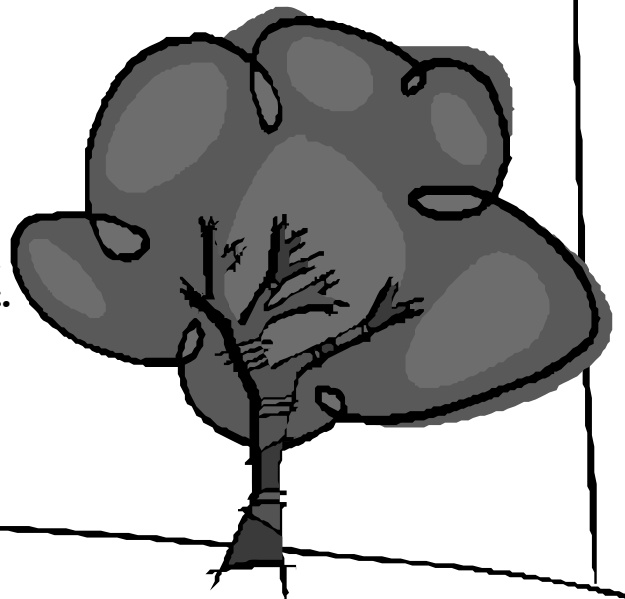
As part of your observation of the world around you, you should pick an amazing tree in your neighborhood to observe during this school year. The tree should be a nice large tree, and preferably be fairly old. Right now, photograph this tree, which you should think of as "Your Tree," and mount the photograph below. You'll also want to write down what you observe about your tree below.



How do you get to your tree from your home?

What kind of tree is it?
Consult a field guide if you aren't sure.

Describe any unusual features your tree has, such as low branches, holes in the trunk, big roots, etc.

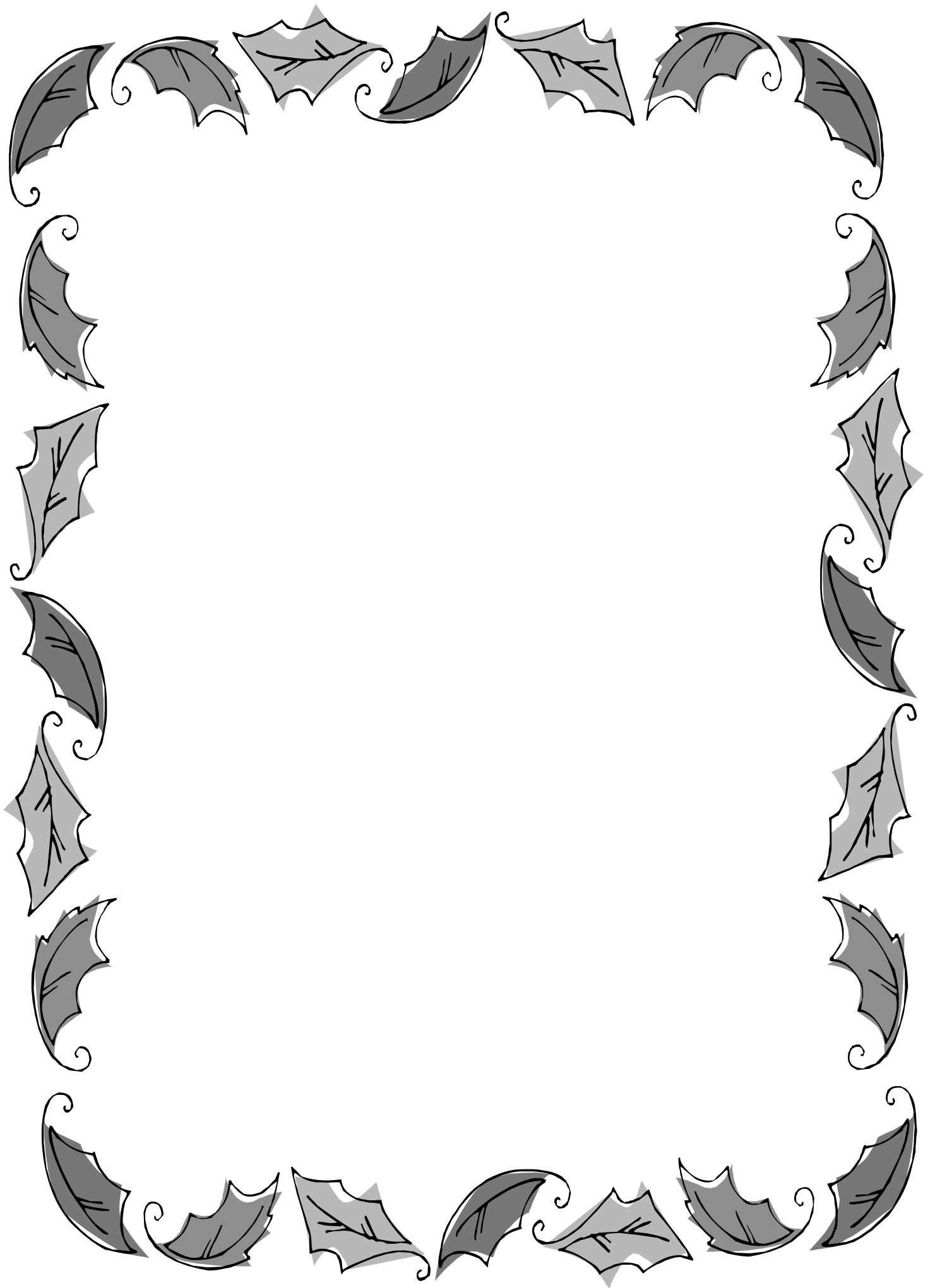




OBSERVATION 11 - Leaves All Fall Down

Deciduous leaves lose their leaves in autumn. Collect a few you've found and either do leaf tracings or leaf rubbings. To trace a leaf, trace the outline of each leaf on paper. To rub a leaf, place a leaf between two sheets of paper; then, put the paper on a hard surface and rub the side of a pencil or crayon back and forth over the top paper. Like magic, the leaf will appear!

On these two pages, mount some fall leaves you've collected, or leaf tracings or leaf rubbings you've made.



OBSERVATION 12 - Draw a Map of Your Yard

As you focus on being aware of the trees in your environment, it is helpful to map out those trees that are closest to you. Take a look at your yard, or, if you live in an apartment, go to a local park. Draw a map of your yard or the park, marking down any landmarks and the positions of trees and bushes you see. If you know what species the trees are, write that on your map. If not, label them as unknown trees or bushes.



A large, empty rectangular box with a black border, intended for drawing a map of a yard or park. The box occupies most of the lower two-thirds of the page.



OBSERVATION 13

What Trees Do You Know?

You've been learning about trees. Write down in the spaces below the kinds of trees you know, such as birch or oak.

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Remember how you picked out "Your Tree"? Take some time to observe your tree, then tell about the following features of your tree:

Your tree's size and shape

Its leaf size, shape and color

Your tree's flowers, if it has any

Your tree's fruit, if it has any

The color and texture of the bark

TAKE A LOOK at Porcupines!

Porcupines are not the most cuddly creatures around! They have sharp quills that cover their bodies, so beware of getting too close! Porcupines are very common in North American forests. If you spend any time in the woods, you might know that porcupines are fairly easy to spot, as they are quite large. They can be 24-36 inches in length, with an 8-10 inch tail. Porcupines are usually a shade of brown or gray. They weigh between 15-35 pounds, and are quite slow. They don't need to be fast to outrun predators, as the quills that cover their bodies protect them from most of the animals who consider trying to eat them.

The porcupine is known for its quills -- each porcupine has more than 30,000 of them! The quills are designed to defend the porcupine from its enemies. When confronted with an adversary, a porcupine gives a warning that is quite a show! It stomps its feet, clicks its teeth, growls and hisses -- all while vibrating its quills, which make a rattling noise. If the attacker persists, the porcupine will run backward at its enemy, ram it with its tail and drive a bunch of quills into the animal's face or any other part of its body that happens to be in the way!

Each quill has a barbed end like a fish hook, so that once it sinks into another animal's body, it is very hard to pull out and very painful. Any animal in the wild unlucky enough to encounter a porcupine must work to get the quills out, a process so painful that most of the time it never goes near a porcupine again! Only the fisher, a member of the weasel family, makes a habit of killing porcupine. The fisher can move so quickly that it can dart in and bite the porcupine in the face, where it has no quills. But even the fisher occasionally gets hit with quills, too!

Porcupines live in a den they make in a small cave or deep crevice in a ledge or rock pile. They can even make their dens in a hollow tree trunk or another animal's abandoned burrow. Porcupines go out mostly at night, and usually to find food. They like to eat leaves and grasses, twigs and even inner tree bark. They seem to enjoy aspen, willow, cottonwood and ponderosa pine the most! They also like berries and apples, foods you probably like, too!

Strangely, porcupines also LOVE salt! Their habit of looking for a salty treat often brings them into contact with humans. Why? Well, it's all about sweat! Have you noticed how salty your sweat tastes? Human sweat has salt in it, and even after the water in sweat dries out, the salt remains. So, porcupines will chew on almost anything a human has touched with sweaty hands -- things like ax handles, boat paddles, gloves, door, boots. And, since humans use salt to melt icy roads, porcupines have even been known to chew on tires coated in salt! How funny!



A mother porcupine raises just one baby a year. This baby porcupine is actually called a porcupette. It is born with soft quills which harden in just a few minutes. It usually stays in the den during the day, but may accompany its mother out at night.

A porcupine's foot prints are about 2 1/2 to 3 1/2 inches long. The front prints show four toes, and the hind prints show five. Claw marks usually show, but the prints themselves may be marred by the porcupine's tail, which drags behind it.

OBSERVATION 14 - Spy on a Porcupine

Here's some space to record the results of wildlife sleuthing expedition to the woods. How about trying to find clues to the presence of a porcupine? Here's some pointers:



- ◆ Look for places where the bark has been chewed off trees.
- ◆ Look for chewing near rocky places where a porcupine den might be nearby.
- ◆ Go out in late fall to early spring, when they are easier to spot.

If you can, take pictures of the "clues" and mount them below, adding notes about what you saw and where it was. Otherwise, draw pictures and take some field notes about what you observed.

OBSERVATION 15 - Tree Branch Growth

Take a look at trees to see how they've grown!

With an adult, go into the woods, or at least look up close at trees and bushes near your home. Draw the leaf buds of as many plants and trees as you can find in your yard or a nearby wooded area. Then, look for ring marks that are nearest to the end buds on a branch. These rings are the remains of scales that fell off of last season's end buds.

Carefully measure the distance between the rings and the end buds on the branches to see how much each branch grew in the past year. Measure from the front of one to the front of the other. Then, measure the distance between the first ring from the end, and the second from the end. This is how much the tree grew the previous year. Which year did the branch grow more? What about the year before that? Write your observations about a tree or bush below.

TREE OR BUSH GROWTH OBSERVATION

Description or name of tree or bush:

Distance between end bud and first ring from end:

Distance between first and second rings from end:

Distance between second and third rings from end:

From your observation, which year did the tree or bush grow the most?



OBSERVATION 16 - Shake a Branch

Shake a branch over a tray and see what you find!

Take a tray or a shallow pan outside and hold a low-hanging branch over it. Tap the branch a couple of times, and let any insects or leaves fall into the pan. Use a magnifying glass to take a look at what is in the tray. Write what you found on the lines below.
