



Friends of NCTC Program Activity  
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## **The Colors of Fall**

Age 5 and older

*When trees lose their leaves and corn is harvested, you know it's fall! Soon, the winter birds will appear, it will be frosty in the morning, and nature will wait for a new birth in the spring. For now, the beauty of this season should be enjoyed!*

### **Background**

It's fall (autumn) and many changes are taking place in nature! The study of the change of seasons is called phenology and anyone can do it! By watching nature over time, whether a single tree in your backyard or a field or the layers of the forest, you can learn all about them and which plants and animals depend on the habitat. Are there holes in trees that could provide a nest for a bird or a squirrel? Do you see different birds at your feeder than in the summer? Are there holes where a skunk or groundhog might make a den? Do the leaves change color all at once or over weeks? When do the buds on flowering trees begin to open in the spring? In the fallen leaves, insects may be overwintering (so it's great if you can rake leaves in the spring and not the fall.)

Leaves are important parts of trees because they make food for the tree AND they provide oxygen for animals. Leaves are differently shaped based on the type of tree they grow on. That's one way we can identify trees—by the shape of their leaves. Some leaves are flat and some are like needles. Flat leaves usually fall off the tree in the fall after they change colors. Trees with needles are called “evergreen” because the needles do not fall off at one time, but gradually, and the tree stays green. (You may notice that there are more pine needles on the ground right now.

### **What You Will Need for This Project (materials and supplies)**

- >For older children (ages 9+): a notebook and pen/pencil for recording observations.
- >(Optional) digital camera/phone
- >A notebook or paper for mounting leaves, glue or cellophane tape.
- >Paper towels, newspapers, large books or other heavy items for laying on top of leaves to press them. (optional) wax paper and electric iron.
- >Glycerin (available at pharmacies, health food stores, craft stores, and online)
- >Tree Bark Scavenger Hunt (available at this website: <https://www.storey.com/article/family-fun-tree-bark-scavenger-hunt/> or on the Friends of NCTC website)
- >Winter Tree Shapes (pdf of some common trees is part of this activity on the Friends of NCTC website)
- >Drawing paper (regular paper will do, but kids love to have larger sizes for drawing) and crayons
- >Flint corn is available at most grocery stores in the fall.

### **What to Do**

>Have children choose a tree that they would like to observe over a series of days, weeks or even longer. Give them the chance to look at/under the bark, search the branches for nests, watch to see what animals might be around on regular basis. Use a tape measure to help children measure the circumference of the trunk. As the seasons change, trees will change, too, new buds in spring; summer shade; fall colors; winter “skeletons.” If a digital camera/phone is available, pictures can be taken on a regular basis for comparison. Don't worry about starting observations at the “right” time of year—you can begin in any season!

>Go on a Tree Bark Scavenger Hunt! A free download with pictures is available at <https://www.storey.com/article/family-fun-tree-bark-scavenger-hunt/>

>Make a leaf rubbing: take a leaf with the back side up on a hard, flat surface. Place a piece of plain paper over it and rub the flat side of a crayon over the leaf several times so that the outline of the leaf, the veins, and the stem begin to appear. Be careful to hold the leaf in place so a double image doesn't happen. If the leaf can be held in place, using different colors of crayon will create an impressive work of art!

>To press leaves, put them between paper towels or newspaper and press them between a couple of heavy books for several days (up to a week). You can stack two or three layers, each between paper, if necessary. You can also iron them in between two sheets of wax paper (but put paper between the wax paper and the iron unless you want your iron to be coated in wax. Leaves preserved in wax paper can be hung as ornaments or suncatchers. (These will last for quite a while but will eventually fade.)

To mount leaves, put a few dabs of Elmer's white or yellow glue on the back, then flip it over and use your fingers to smooth out the leaf. (Putting wax paper over the mounted leaf and closing the notebook, with a weight on top for an hour, will give the glue time to dry and keep the papers from being glued together.) You may want to write notes on the page: common name, scientific name, date, location, shape, or something personal are ideas.

>Use your mounted leaves to start a leaf collection! All you need to do is collect leaves, press them (see above), and use cellophane tape or a small amount of glue to save them in a notebook. Leaves do not have to be "perfect" (without holes or marks), but fresh leaves can be pressed more easily and effectively. You can group them by color or shape or just collect many different leaves. Don't forget to use a tree field guide to identify them! You can frame your mounted leaves or use them to decorate a blank greeting card and send them to friends.

>Glycerin Leaves will keep leaves supple and colorful. Mix solution of 1 part glycerin to 2 parts hot water. Layer the leaves in the bottom of a pan. Cover completely with glycerin mixture. Make sure leaves are completely covered. If they are overlapping, swirl the mixture a bit to make sure the leaves are covered. Put a second pan on top to weigh down the leaves. Allow them to soak for 3-4 days or more. Remove leaves from solution, blot with a paper towel.

>Tree leaves change color in the fall—but the color is there year-round! The green chlorophyll covers the "real" color of the leaves. This experiment reveals the color of leaves but involves the use of a stove:

<https://sciencing.com/remove-chlorophyll-leaves-5789711.html>

This experiment reveals the color of leaves using only alcohol:

<https://www.sciencefun.org/kidszone/experiments/changing-of-the-leaves/>

Older kids may be interested in preserving the color of leaves. There are three different ways here:

<https://www.wikihow.com/Preserve-Leaf-Color>

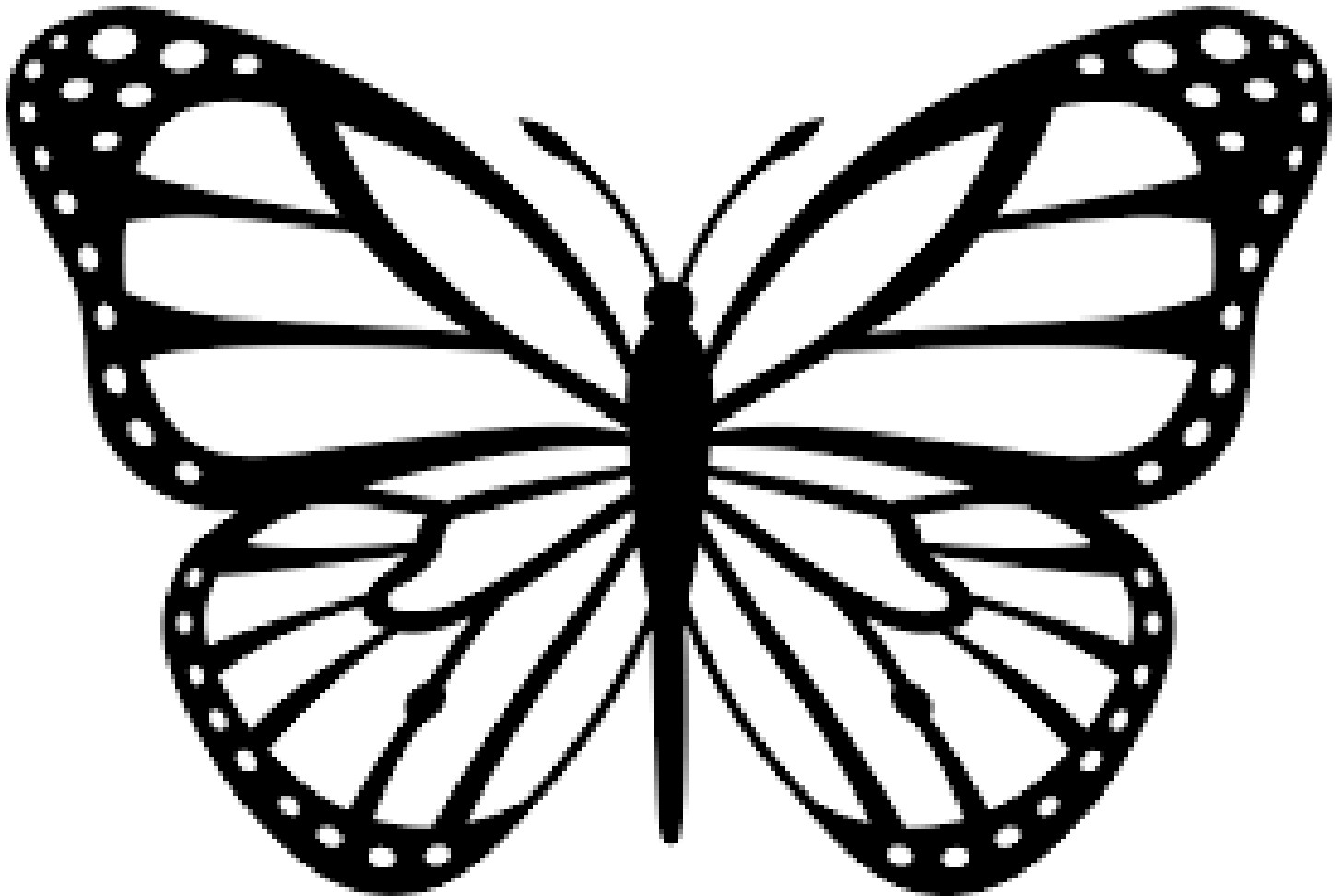
>Leaves are not the only colors of fall! Have you seen "flint corn" (commonly called Indian corn) in the grocery store? Flint corn is just corn, but it is pretty and is actually one of the three types of corn that indigenous tribes planted. It looks dried up and dead, but can it sprout? You can make an hypothesis (a guess of what you think will happen) and find out!

Put the dry ear of corn in a flat container and add enough water to cover about the bottom 1/3 of the ear. Less is better—too much water will cause mold. Check the water each day and add water when needed, but never too much. Watch what happens! In about a week (maybe a bit more), you may see tiny sprouts. Do the sprouting seed stay attached to the cob or do they come loose? If you are successful in growing a sprout, can you plant it and grow the entire corn plant?

>The Monarch butterfly is full of fall color! At this time of year, thousands of Monarchs will fly to Mexico where they will over-winter. In the spring, they will return to this area. Although November is late for most Monarchs to begin their journey, you may still see some. You can find lots of information about them at [https://journeynorth.org/tm/monarch/kids\\_fall.html](https://journeynorth.org/tm/monarch/kids_fall.html) (and enjoy coloring the image below.)

**Helpful Hints for Adults**  
**(books to read, other websites, links)**

- >*Fall Leaves: Colorful and Crunchy* by Martha E.H. Rustad is a good resource for younger children.
- >*A Log's Life* by Wendy Pfeffer is an excellent storybook that explains the changes in the forest.
- >*A Tree is Nice* by Janice May Udry is an older, classic story about trees in all seasons.
- >*Backpack Explorer: Discovering Trees* by Editors of Storey Publishing
- >*Winter Trees* by Carole Gerber is a good resource for identifying trees without their leaves.
- >*Hurry and the Monarch* by Antoine O Flatharta



(cliparting.com)