



Time for Leaf-Peeping

photo by Paul Van Der Werf

Ahhhhh-tum! As fall sets in, trees in some parts of the country are about to shed their leaves and go to sleep for the winter.

Just before the leaves fall, some turn beautiful fall colors. The peak time to see this is so short, it offers us only a brief look, or peep!

When this happens, many people travel to the northeastern part of our country and elsewhere to enjoy the beautiful scenery.

The New England states are especially famous for their fall leaves, where the season usually lasts from mid-September until mid-October.

In other parts of the country, such as in the South and in the mountains of the West, Mother Nature usually puts on her best foliage (FO-lee-ehj), or leaf, displays later in October or early in November.

Types of trees

Evergreen, or needle-leaf, trees have green needles year-round. Their needles form a heavy wax cover that protects them. They also have a natural “anti-freeze” inside that usually protects them.

Broadleaf leaves are flat and wide. They do not have such wax covering or natural anti-

freeze. If the weather gets cold enough, the leaf dies and may fall off.

However, there are some broadleaf trees that are evergreen — for example, the holly and the live oak. In warm climates, some broadleaf trees stay green all year long.

The trees that change to the beautiful fall colors are the broadleaf trees that lose their leaves. These trees live where the weather gets below freezing.

Why do they change?

During the spring and summer, broadleaf leaves are busy food factories. A green-colored substance called **chlorophyll** (KLOR-uh-fil) helps keep the food factories running.

The leaves also have other colors such as yellow or orange, but they are hidden by the green of the chlorophyll.

We see the red colors in leaves when sugars begin to be stored in the leaves. In the fall, as the days get shorter and the nights get cooler, leaves stop making food. The chlorophyll breaks down, and the green color disappears. The hidden colors begin to show.

A special layer of cells forms at the base of each leaf stalk. These cells block the tissues that join the leaf to the tree. The leaf dies and eventually falls off.

Mini Fact:

One tree might turn several colors, depending on which side is facing the sun.



photo by Kimberly Vardeman

For the prettiest displays as fall arrives, trees need lots of warm, sunny days and cool nights that stay above freezing.



photo by Phil Ejercito

Take a look at leaves

There are several different types of leaves. The ways that leaves are arranged as well as leaf edges vary.

Leaf types

A **simple** leaf has just one piece. Trees with simple leaves include maple, oak and elm.

A **compound** leaf has more than one piece to each leaf. Each piece is called a leaflet. Examples include hickory and ash.

Leaf arrangement

Leaves can be arranged on the branch in two ways:

- **Alternate** leaves, such as oak and willow.

- **Opposite** leaves, such as maple and dogwood.

Entire leaf edges are smooth, like this willow leaf.



Linden

Toothed edges are jagged. The linden leaf has jagged edges.



Rowan

A rowan tree has **compound** leaves that are **opposite** each other.



Willow

Trees with **wavy** edges include some oaks.



Oak



Maple

Other oaks and maples have **lobed** edges.

Resources



On the Web:

- fs.usda.gov/visit/fall-colors/for-kids

At the library:

- “Leaves” by Vijaya Khisty Bodach

Try 'n' Find

Words that remind us of fall foliage are hidden in this puzzle. Some words are hidden backward or diagonally, and some letters are used twice. See if you can find:



ALTERNATE, BROADLEAF, CELLS, CHLOROPHYLL, CLIMATE, COLOR, COMPOUND, EVERGREEN, FALL, LOBED, NATURE, NEEDLE, OPPOSITE, ORANGE, RED, SIMPLE, TOOTHED, WAVY, WAX, WINTER, YELLOW.

R	Q	W	H	D	F	O	D	O	N	A	T	U	R	E
V	N	O	M	N	A	P	C	R	L	K	V	V	T	T
U	E	L	P	U	E	P	E	A	L	K	E	A	E	O
C	E	L	S	O	L	O	L	N	A	X	N	T	R	O
E	R	E	I	P	D	S	L	G	F	R	A	E	E	T
L	G	Y	M	M	A	I	S	E	E	M	T	W	Z	H
D	R	V	P	O	O	T	Q	T	I	N	Q	F	G	E
E	E	A	L	C	R	E	L	L	I	L	O	B	E	D
E	V	W	E	E	B	A	C	W	H	C	O	L	O	R
N	E	O	D	L	L	Y	H	P	O	R	O	L	H	C

Cook's Corner

Autumn Pie

You'll need:

- 6 eggs, beaten
- 1 cup sugar
- 1 teaspoon vanilla
- 2 tablespoons butter, melted

- 1 1/2 cups dark corn syrup
- 1/2 cup maple syrup
- 2 cups peanuts
- 1 unbaked pie shell



What to do:

1. Combine eggs and sugar in a large bowl. Mix well. Add vanilla and melted butter to bowl. Mix well.
2. Add corn syrup, maple syrup and peanuts. Mix well.
3. Pour into pie shell.
4. Bake in a preheated, 300-degree oven for 1 1/2 hours. Serves 8.

* You'll need an adult's help with this recipe.

1. Usually green parts that grow from stems (6-letter plural noun)

□ □ □ □ □ □

2. Picking up with a garden tool having a long handle (6-letter verb)

□ □ □ □ □ □

3. To make, cause or become different; alter (6-letter verb)

□ □ □ □ □ □

4. The temperature and outside conditions (7-letter noun)

□ □ □ □ □ □ □

1. Thomas drew _____ in pretty colors: red, green and yellow.
2. Papa was _____ the dead grass into four big piles.
3. Bonnie likes the _____ from hot August to cool October.
4. Mario thinks the _____ tomorrow will bring rain again.

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Study the definition. When you know the missing word, fill in the letter boxes and the sentence blanks.

Answers: Leaves, Raking, Change, Weather

Mini Jokes



Liam: Why did the pencil talk to the sharpener?

Lara: He wanted to make a point!

Eco Note



The first species of wild tobacco plant known to kill insects was discovered next to a remote highway truck stop in Western Australia. Previously unknown to science, the newly named **Nicotiana insecticida** is covered in sticky glands that entrap and poison small insects such as flies, aphids and gnats. Scientists who discovered the plant say there is no evidence that it extracts any nutrients from insects it traps. The team says the plant is easy to grow and may one day be used to kill aphids and fungus gnats in greenhouses.

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For later:

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