



Lesson: Evergreens Everywhere

(To follow Amplify CKLA K, Knowledge 4: Plants, Lesson 9: Evergreen Trees)

At a Glance

In this lesson, students learn how to classify trees into two categories and how to identify them. Through a variety of activities, students will use observational skills to notice and wonder about the trees, sort trees into categories, and become more knowledgeable about the kinds of trees commonly found in New Hampshire.

Primary Focus Objectives

- Students will compare deciduous and evergreen trees.
- Students will observe and ask questions about deciduous and evergreen trees.
- Students will become familiar with the different kinds of trees in New Hampshire.

Formative Assessment

• Coniferous/Deciduous sort

Standards

CCSS.ELA-LITERACY.SL.K.2

Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.

CCSS.ELA-LITERACY.RI.K.9

With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures)

CCSS.ELA-LITERACY.W.K.2

Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.

Materials

- Focus text: <u>Unit 1: New Hampshire Geography, Learn It! "Features of the Land"</u>, p. 2.
- Vocabulary Cards: Evergreen and Deciduous
- Images: Deciduous tree, Evergreen tree, <u>Crawford Notch</u>, <u>Fall in New Hampshire</u>
- Observation sketch templates
- "Tree-Chart" worksheets
- Optional resource: Squam Lakes Association Tree Identification Guide
- Optional read aloud: Christmas Farm by Mary Lyn Ray
- Optional craft: leaves, paper, and crayons

Time Needed

Two 30-40 minute class sessions

Learning Activity

1. **Share the Focus Text.** Read the recommended Learn It! selection. Discuss the images and key words. (5 minutes)





- 2. **Discuss the Vocabulary Cards.** Project or display the vocabulary cards. Read the vocabulary cards together and record student connections on chart paper under each vocabulary card. (10-15 minutes)
- 3. **Examine trees.** Look closely at coniferous or deciduous trees, either near your school or in the provided photographs. Provide students with the sketch templates. Have students spend time sketching or drawing the examples. If able, students can add one or two labels that show their understanding of the terms. Then discuss, as a class or with a partner, what they notice about the trees. (20-30 minutes)

This is a good place to pause if dividing the lesson across two sessions.

- 4. **Coniferous/Deciduous sort.** Distribute the "Tree-Chart" worksheet. Direct students to cut out the pictures and sort them into either the deciduous or evergreen category. (20 minutes)
- 5. **Optional: Read Aloud.** Read Mary Lyn Ray's *Christmas Farm.* Discuss as a class what you notice about the evergreen trees in the book. (25 minutes)
- 6. **Optional: Mini Field Trip:** Take a walk through the neighborhood and collect data to create a guide to local trees. Use the suggested tree identification guide to solve tree mysteries. (30-60 minutes)
- 7. **Optional: Craft.** Gather fallen leaves from the neighborhood or school grounds and create rubbings to show the shape and veining. (30 minutes)





Educator Rationale and Answer Guide

Connection to Amplify

In this lesson, students develop an understanding of vocabulary terms through a non-fiction text excerpt, discussions, and observations, with optional additions of a read aloud, mini-field trip, and the extension of making their own books. There are many different opportunities for practicing and applying vocabulary.

Share the Focus Text

The focus text gives the background knowledge for the class to learn about the terms "evergreen" and "deciduous." It helps children connect these ideas to New Hampshire geography and environmental features.

Examine Trees

In this step, students observe trees and document their observations with drawings. It is ideal to do this step outside. If students use their senses, it will add depth to the experience. This is an activity you can do several times during the year as the trees change with the seasons. Students should observe leaf shapes, color of leaves, tree shape, and their own experiences with the different kinds of trees. Images are provided if you are not able to complete this step outside.

Coniferous/Deciduous
Sort

The sort activity is an opportunity to assess whether students understand the basic concept of what an evergreen tree is compared to a deciduous tree.

Optional: Read Aloud

Christmas Farm is written by a New Hampshire author, Mary Lyn Ray. She lives in Danbury, New Hampshire. Help students find Danbury on a map of New Hampshire and use the author's note to discuss why she may have written this book.

Optional: Field Trip

This field trip allows children do their own data gathering and field work. It also provides opportunities for children to apply the different concepts about trees they have learned, use the new vocabulary, and ask questions to further understanding. Take a walk to see how many deciduous trees and evergreen trees you find. Bring the vocabulary cards with you. Once the students have identified what kind of tree it is, take a photograph of a student with the proper vocabulary card and the tree. Collect leaves along the way. When you return to the classroom, consider using the Tree Identification Guide created by the Squam Lakes Association to compare your leaves to those of common New Hampshire trees. Then, make a class guidebook with the photographs from your field trip, adding descriptions of what you found.

Optional: Craft

Gather fallen leaves if it's the right time of year. Place the leaves under a piece of paper and rub a crayon over the leaf. Students can then observe the vein patterns and shapes of the leaves. These leaves could be used for a variety of displays, like a class mural.

DECIDUOUS

Definition: A type of tree that loses its leaves in the fall

How to use it: The deciduous trees turn red, orange, and yellow in the fall.





EVERGREEN

Definition: A type of tree that keeps its needles all year long.

How to use it: The **evergreen** tree stood out in the forest during the winter, when the other trees had lost their leaves.







Source: Deciduous tree (maple), Concord, New Hampshire, photo by Kari Allen.

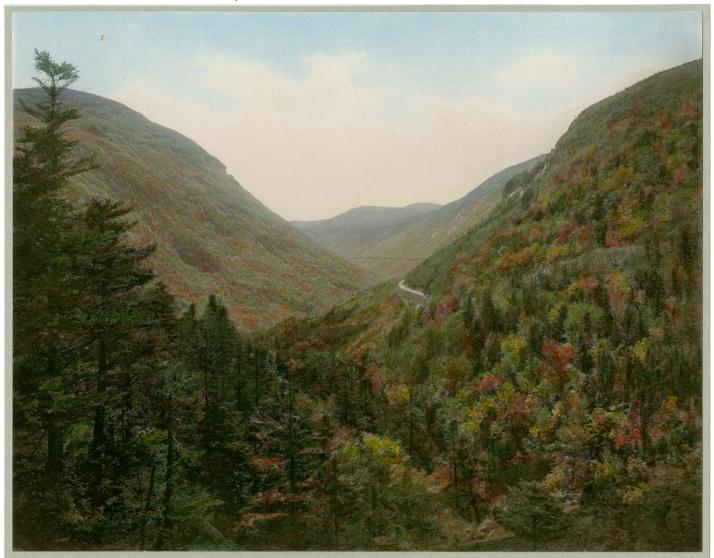




Source: White Pines (evergreen trees), Concord, New Hampshire, photo by Kari Allen.



Crawford Notch, White Mountains



Source: New Hampshire Historical Society



Fall in New Hampshire

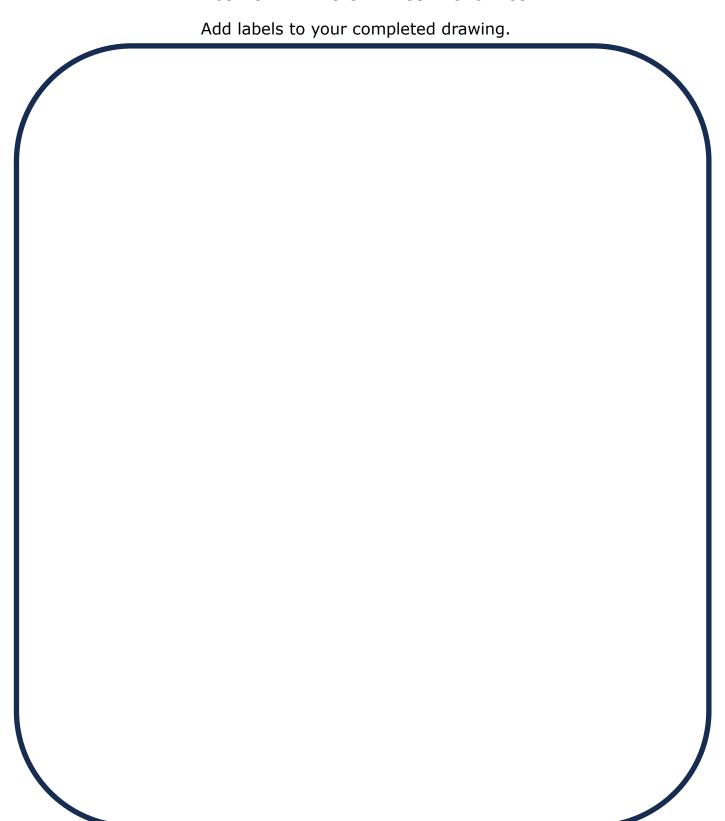


Source: Adobe Stock image





Observe and Sketch a Deciduous Tree







Observe and Sketch an Evergreen Tree

Add labels to your completed drawing.

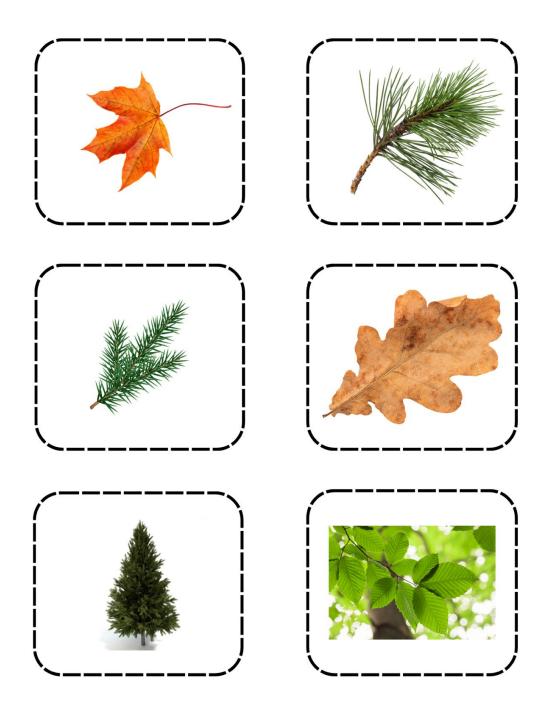


Tree-Chart

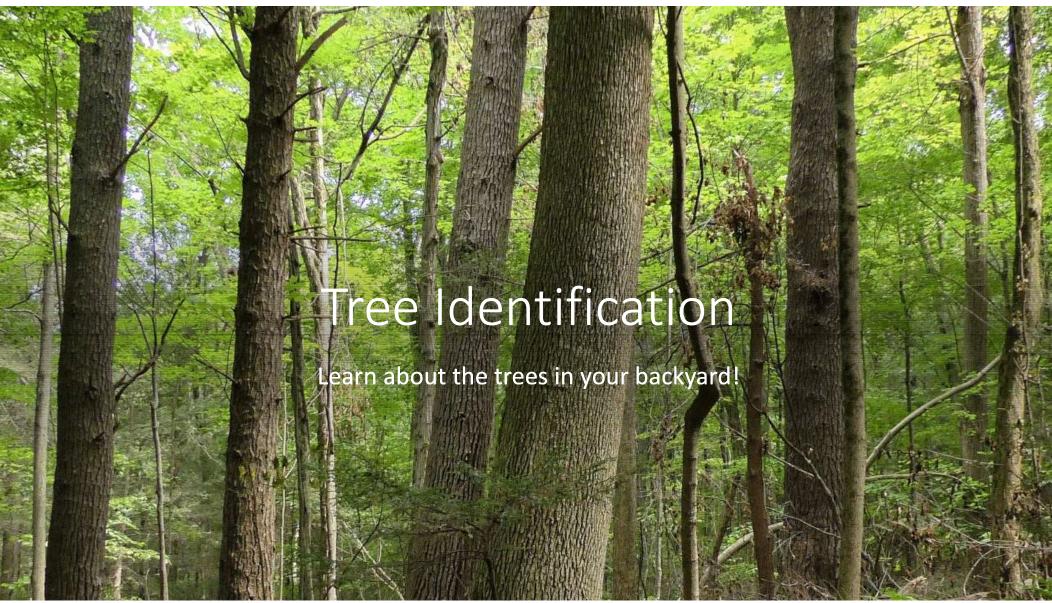
Cut out the images and sort them into the correct column.

deciduous	evergreen









Conifer

- Conifers are trees or plants that have cones.
- The cones are where their seeds are.
- Some coniferous trees include.
- Cedars
- Pines
- Hemlocks
- Redwoods
- Junipers



Deciduous

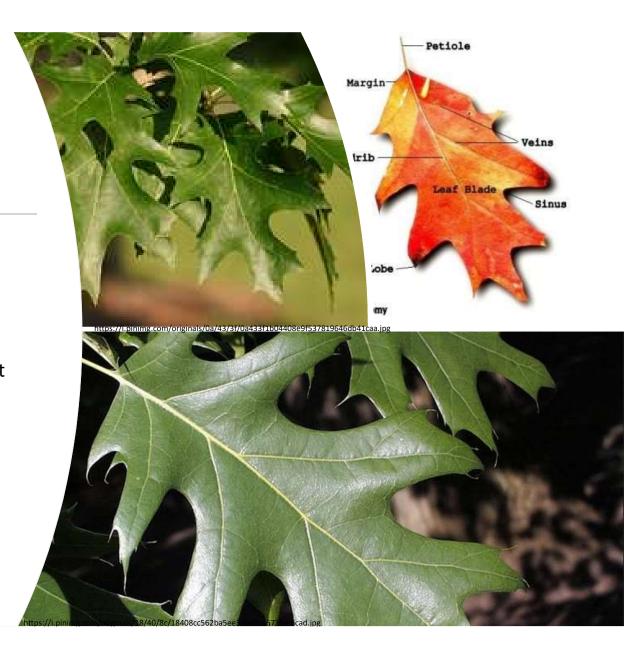
- A deciduous tree or plant is one that loses its leaves (or needles) in the winter.
- Deciduous trees include:
- Maples
- Oaks
- Beeches
- Ash



https://sciencing.com/plants-animals-deciduous-forests-7437021.html

Northern Red Oak

- Leaves: Light green leaves with 7-9 lobes
- Bark: Gray-brown, darker on old trees, rounded ridges, can be scaly.
- Bark: A young tree's bark is smooth and light grey.





White Oak





- Leaves: Bright light green with 5-7 lobes; the leaf is rounded in between the lobes.
- Bark: Light ash-grey. It peels from the bottom, top, and sides. The bark appears furrowed.

Eastern White Pine

- Tallest tree in Eastern North America
- Used for British ship masts.
- Needles: Three sided, finely toothed. They tend to be longer than other coniferous tree needles. They grow in bundles of five.
- Memory device: "White" has five letters in it, and its needles grow in groups of 5.
- The red pine's needles grow in clusters of 2.
- The yellow pine's needles grow in bundles of 3.
- Young Bark: Smooth and gray with a slight green tinge.
- Old bark: Ridges that are dark and scaly. The bark grows flaky with age.



Eastern Hemlock Tree

- Needles: Flat and light green.
- Bark: Brown-gray. The bark develops scaly deep fissures and ridges with age.



Fir Tree and Spruce Tree

- "Friendly" Fir
- Fir Needles: Soft, flat, and they cannot roll between your fingers.
- Fir Bark: Young bark is smooth and grey, furrowing with age.
- "Spiky" Spruce
- Spruce needles: Sharply pointed, square, and they cannot roll easily in your fingers.
- Spruce bark: Rough and scaly.
- Fir and spruce needles look similar, but they are not the same.



https://www.hppr.org/sites/hppr/files/styles/medium/public/201512/douglas fir needles.jpg



- One of the few species of confers that is deciduous.
- It's a confer that loses its leaves!
- Needles: Grow in clusters of 10-20; they grow in tight spirals around the twigs.
- Bark: Gray to reddish brown, thin irregular scales; the bark of older trees becomes more gray with more scales.



Moose Wood (Striped Maple)

- Leaves: Three pointed lobes.
- Bark: Lightly striped, light gray-brown



Aspen

- Leaves: Bright green, heart shaped.
- Bark: Whitish green bark; as it grows older, it becomes grayish and rough and furrowed.
- Aspens pop up as identical clones, and all spread from the same root system.





https://ih1.redbubble.net/image.367513697.7730/raf,750x1000,075,t,FFFFFF:97ab1c12de.u7.jpg

White (Paper) Birch

- Leaves: Dark green and smooth, triangular to oval in shape. They are rounded at the base, pointed at the end, and they have fine teeth on the edges.
- Bark: Thin and white with darker streaks; it peels off the tree and resembles paper, thus the name "paper birch." Salmon or pink colored inner bark is revealed when the outer bark is peeled away.
- The white birch is the official New Hampshire state tree. Other varieties of birch in the state include the yellow birch and gray birch.



American Beech

- Leaves: Dark green and "toothed" on the edges; they have noticeable veins that end in a tooth.
- Bark: Smooth, silver-gray bark
- Memory device: An American **beech** tree leaf looks like a surfboard, and surfboards are found at the **beach**.





Sugar Maple

- Leaves: Five lobes. The lobes near the top of the leaf are larger and deeply notched. The areas between the lobes are rounded.
- Bark: Gray-brown. On young trees, it is smooth, but old bark has deeper fissures. The bark becomes thicker, darker, and deeply furrowed into vertical scaly ridges as the tree ages.
- Twigs: Reddish brown to light brown.
- The leaf depicted on the Canadian flag is that of a sugar maple.





https://farm66.staticflickr.com/65535/46850066805_5cc14d381f_b.jpg



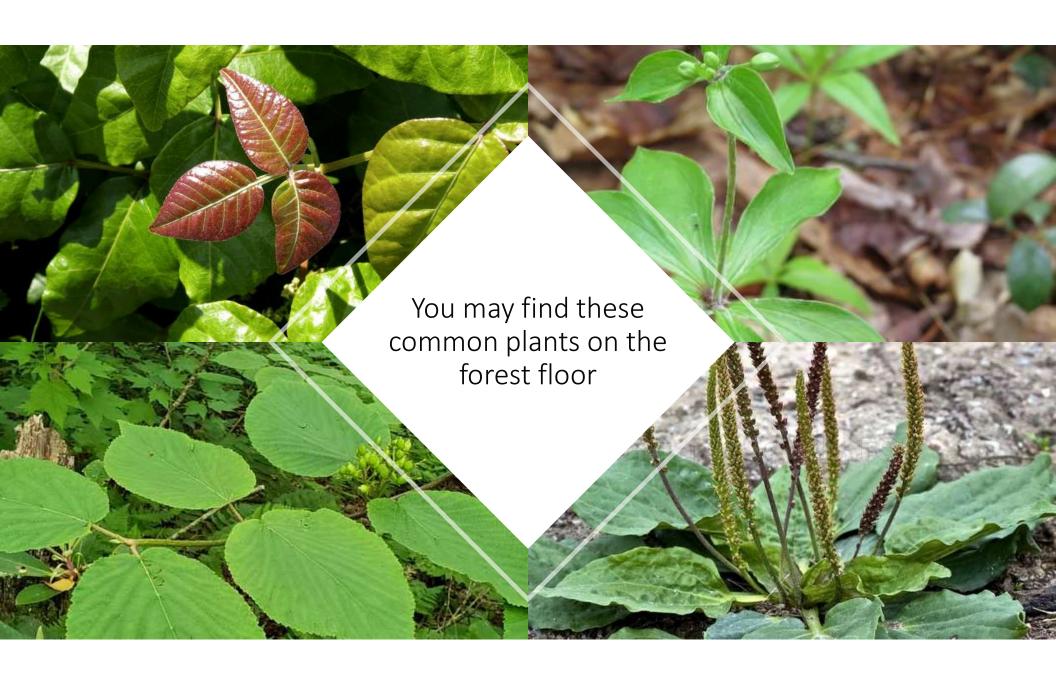






Red Maple

- Leaves: Roughly toothed with three to five shallow lobes
- Bark: When young, it is smooth and light gray. Old bark becomes dark gray and rougher.
- The red maple has lighter, smoother bark then the sugar maple.
- Twigs: Slender and glossy; they begin green and turn red as the season progresses.



Indian Cucumber (common plant)

- Leaves: One or two whorls of leaves. Light green in color.
- Develops berries when more mature.
- Has a starchy white root that is edible.
- Grows in wet semi-shaded wooded areas and in open woods and forests.



Hobble Bush (common plant)

- Leaves: Finely toothed with noticeable veins. Rounded leaves ending in a point.
- Leaves: Rounded lobes that are heart shaped at the base. The leaves are green in summer and turn reddish purple in the fall.



Plantain (common plant)

- Often thought of a weed, plantains are very common in North America.
- Classified as an herb, and it can be used for insect bites and bee stings.
- Chew a leaf of it, and then place it on a mosquito bite. It helps to make the itching stop.



Poison Ivy (common plant)

• Leaves: Range in color from shiny green to shiny red. They grow in groups of three and have pointy tips and jagged edges.

 Poison ivy can come in the form of a small plant, vine, or shrub.



This Week's Activity

- Go into your backyard (or go for a short walk in your neighborhood), look at the trees, and see how many of these leaves you can identify. And the next time you are in the woods, observe the trees around you, and see if you can identify any of them based on what you have learned here.
- Go out and collect different kinds of leaves, bring them home, and try to identify them. But make sure that you do not collect any poisonous leaves such as poison ivy!
- If you want to get creative, use the leaves you collected to make a leaf rubbing.
- Here is what you will need: A white piece of paper, crayons, leaves, and a flat hard surface.
- Lay your leaves on a flat hard surface (such as a table), and then lay a white piece of paper on top of the leaf or leaves. Use a crayon and rub it gently horizontally across the white piece of paper. The outline of the leaf will soon be visible on the white piece of paper. After the picture of the leaf emerges, label what type of leaf it is.
- It's a fun activity, and I am excited to see your leaf rubbings at next week's lesson!
- Next week, we will talk about some of the leaves you collected and the trees you identified.





Sources

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