

New England Foliage Unit

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Abstract

This unit is designed for Intermediate English as a Second Language class with a Math, Science and Technology theme. The main question of the unit is *What makes New England unique from other places in the world?* The overarching hope is to encourage international students to become acquainted with the nature of the part of the United States in which they now live, while developing their vocabulary and writing skills. Students will learn why there are four seasons in New England, species of trees that are common, why leaves change color in the fall, how the seasons impact the animals, etc.

Students will also learn the names of common trees in New England and will be responsible for collecting samples in a Leaf Identification Project. The project will include the display of leaf samples with labels, an essay about the weather and a short presentation of the project. At the culmination of the unit, the class will take a field trip to a local nature reservation in order to journal, walk and enjoy the outdoors. The unit will include quotations and short writings from American writers such as Henry David Thoreau, but the bulk of the readings will be science related information. Journaling will be used throughout the unit to help students develop their descriptive writing and observations to see changes in the nature around them.

Essential Questions

What makes New England unique from other places in the world?

Why are there four seasons in N.E. and how are they different?

How does the nature/weather here differ from other countries?

How do leaves make food for the tree and why do they change color in the fall?

What are the kinds of trees common in N.E.?

Where do some animals go in the winter and what do others do to survive here?

What do trees need to be healthy and how do they help us to be healthy?

What other activities or foods are connected with the Fall season?

Grades The ESL classes are arranged by proficiency level and therefore have a range of grade levels mixed in one class. This unit could be also used with ESL or native speakers of English in middle or high school.

Activities

Poetry and readings about the seasons in N.E. Quote from Thoreau about the colors.

Field Log/Observations- Observing the changes in tree color, possibly doing this over time. Students can sit in a spot outdoors and write about the colors or they could draw them. Then they can go out when the leaves are at their peak color change and describe them or draw term again.

Vocabulary- Students will be given a list of words that they will need to define throughout the unit to be tested on at the end of the unit.

Field Book- Students will make a field book that includes leaf samples with labels, rubbings and any other decorations they see fit. Students will have to identify the trees in NE that change color as well as some of those who don't.

Journaling- Students will need to write about the activities that we do outside the classroom. How do the leaves symbolize change of the seasons or change in people.

Field Trip- Plan a field trip to a local nature location where students can collect, journal and observe the trees.

Objectives

Students will be able to.....

Explain why there are four seasons, why leaves change color and fall

Identify the common trees of New England

Experience the natural world

Develop journaling and descriptive writing skills

Explore their relationship with nature

Identify elements of figurative language

Show their work in a final product

Compare and contrast New England to their home country

Lesson Outlines

The unit will take place over the course of twelve lessons.

Curriculum Unit Outline

Lesson	Time Span	Materials/Activities
Lesson 1 The Climates of the World and the Seasons of New England	2 classes	Handouts about Climates/Seasons Class discussion about weather in N.E. Collected writings about the seasons Student journaling and discussion about weather in their home country. Venn Diagram to compare/contrast
Lesson 2 New England Trees and Foliage	4 classes	Video about N.E., weather and foliage PowerPoint about trees found in N.E. Leaf Identification Sheet with labels of leaves missing Handout with the anatomy of a leaf. Leaf rubbings and prints Passage by Henry David Thoreau from "Autumnal Tints" Journaling time outdoors.
Lesson 3 Where do the animals go?	1 class	PowerPoint of common animals of N.E. Discussion about migration/hibernation Student discussion of animals in their country.
Lesson 4 Leaf collection and identification project	5 classes	Leaf collection on school grounds Class time with supplies for leaf pressing, rubbing, printing, and displaying samples for leaf project. Class time for essay writing. Student Presentations

Lesson Overviews

Class 1: Introduction to Seasons and Climates

1. Class will begin with a short discussion about weather and how weather is different in various parts of the world. Students will receive handouts that show the different climates of the world and why there are four seasons in New England. The handout will also include the Fahrenheit temperature system used in the United States because many students are familiar with the Celsius scale.

2. The class will discuss the four seasons and students will be asked to describe the weather they experienced. Student responses will be written on the board under the appropriate season. Next students will be invited to share any experiences with the weather in New England. I will add any additional information they will need. Students will copy the information in a notebook.
3. In their journal students will be asked to draw a Venn diagram in order to compare and contrast the weather in N.E. with the weather of their home country. Students should find both similarities and differences. Then in their journal they will need to write about what they discover with the Venn diagram and reflect upon what they like and don't like about the weather in either country. Student generated vocabulary will be put up on the board to help students with their writing.

HW- Vocabulary

Class 2: Readings about the Seasons

1. Students will be asked to reflect on what they wrote in their journals last class and how they felt about the activity. Students will be invited to share anything they noticed or wrote in their journal.
2. Students will be put in random groups and each group will be given a piece of writing (poem, short prose, etc.) that is written about the topic of the seasons. The students will read the writing once silently and then one out loud. They will then be asked to look at the descriptions of the nature and the author's word choice. What did they like about it and what did they not like about it. Their thoughts will be recorded on a sheet at the table.
3. As a whole class groups will then be shuffled and students will go to another table and repeat the same steps with the students at that table. Students will continue to rotate until all students have read all of the writings.
4. One student from each group will then be asked to read the piece and the comments that other groups made about it. Selected comments will be written up on the board. The class will discuss as a whole what makes the writing interesting to the reader and allows them to "see" what is being written about.

Class 3: New England Foliage

1. Students will discuss the season of fall by offering what they know about the season to be put up on the board. When does fall officially begin?
2. Students will be shown a short video about N.E., including the foliage and the fall season.
3. Students will be shown a PowerPoint that shows the vocabulary for the parts of a tree, the most common trees found in New England and distinguishes between coniferous and deciduous trees. They will have to fill in the deciduous tree names on a sheet that shows a picture of the leaves. This sheet will be used for leaf identification in subsequent classes.
4. Students will be read a passage by Henry David Thoreau from "Autumnal Tints" where he describes the fall foliage.
5. Students will be shown a website by the Arbor Day Foundation using the SmartBoard where they can practice identifying trees and can find descriptions and information about trees. If time allows they can go to the computer lab.

<http://www.arborday.org/trees/whattree/>

HW- Make a list of trees that are found in your backyard or neighborhood using the leaf identification sheet.

Class 4: Introduction to Journaling

1. Students will be introduced to the idea of journaling and how to journal. The class will discuss how to describe everything they see and observe. An example will be done as a class describing a picture or a clip from a video.
2. The class will participate in an exercise that will help students use their 5 senses when journaling and observing. The class will practice with audio CD's that have sounds of nature and some materials to touch. Descriptive words will be put on the board do students can write them down in their journal to use later when writing.
3. The class will go outside and sit somewhere around the school campus. The students will be given 15-20 minutes to write about what they observe using their 5 senses.

HW- Share what they wrote during class with a family member or friend. Have that person circle one thing they liked and initial it in the notebook.

Class 5: Why do leaves change color?

1. The class will learn why leaves are green and the process of photosynthesis using handouts. The handouts will also explain what makes leaves change color. Students will have the chance to look at real leaves (collected from outside) closely and understand the anatomy of the leaf.
2. Students will use colors to make drawings, leaf rubbings or leaf prints to hang in the classroom. They will be able to make several of these but must label their leaf using the leaf identification sheet.

HW- Student generated summary of why leaves change color.

Class 6: Observation walk and journal

1. Students will reflect on the lesson from yesterday and write the following questions in their journal to help them with their observations. (*What do you see? Is anything different from the last time you came outside to observe? What do you hear? What is the weather like today? How do you feel today?*) If students then have time they can consider the following questions to discuss in their journal. (*What does change mean to you in your life? Are you accepting to change? What changes have you gone through recently and were they positive or negative?*)
2. The class will go outside and walk to a location where they can sit, observe and write. Students will be asked to sit separate from other students. They will have about 20 minutes to observe.
3. Students will be able to share a part of their writing with the class. A few sentences may be selected to hang up on the wall of leaf rubbings/prints.

HW- Reread journal writing and check the writing for spelling/grammar/verb tense mistakes or places you could add some ideas.

Class 7: What about the animals?

1. Students will be introduced to some of the animals that live in New England using a PowerPoint presentation. We will discuss where these animals go in the winter and how many animals use the fall to prepare for the winter. Hibernation and migration will also be discussed.

2. Students will generate a list of things they would bring with them if they had to hibernate all winter long. Then they will share their top choices with the class.
3. Student generated sentences about the seasons and animals. Students will use their vocabulary to show they understand what has been discussed thus far in the unit.

HW- Students will make a list of animals found in their country by looking in a book, online or talking with family members. Do these animals need to make any adaptations to the weather there?

Classes 8-11: Introduce Leaf Project

1. Students will share what they found out about animals from their country for the first few minutes of class.
2. Guidelines for the leaf collection project will be handed out to students and carefully covered. Students will be given 3 to 4 class periods to collect leaf samples from the school campus or their neighborhood, prepare them (press, rub or print), and write a short essay about the fall foliage in New England.
3. Once all the guidelines are covered students will see a sample of a leaf project. Then the class will head outside to collect leaves. Students will each have a folder to store their leaf samples in.
4. During the following three class sessions students will have time to work on their essay and artwork. They will be able to use the computer lab to access the Arbor Day website to help them identify their leaves or to type their essay.

HW-Begin working on ideas for project and essay.

Class 12: Presentation of Leaf Projects

1. Students will present their leaf projects in small groups to one another or to another class that meets at the same time (planned ahead of time with another teacher).
2. The class will then discuss some traditional fall activities and food in New England since most of the students are new to the country.

Class 13: Field Trip

1. The class will then take a field trip that is within walking distance in order to view the fall foliage and take some pictures.

List of Materials

Books

Science and Nature Guides: Trees of the United States and Canada. World Book, Inc. Chicago, 2005.

Zielinski, Gregory A. New England Weather New England Climate. University of New Hampshire. University of New England Press, 2003.

Cassie, Brian. First Field Guide Trees. National Audubon Society. Scholastic Inc. New York, 1999.

Maestro, Becky. Why Do Leaves Change Color? Harper Collins Publishers . New York, 1994.

The Dorling Kindersley Picturepedia: Plants. Dorling Kindersley, Inc. London, 1993.

Video

New England: Travel Guide DVD. Globe Trekker. Topics Entertainment. 2006.

Websites

<http://www.arborday.org/trees/whattree/>

Arbor Day Foundation

<http://www.vcu.edu/engweb/transcendentalism/authors/thoreau/>

American Transcendentalism Web

<http://www.woodland-trust.org.uk/>

Woodland Trust

<http://gonewengland.about.com/>

About.com New England

What's that tree?



Leaf collection and identification project
Ms. Whalen

*"The colors of the fall leaves are beautiful and when they are collected they can be enjoyed even after the last leaf falls."
C. Whalen*

This project will allow you to know the names of trees that grow around you, understand New England weather better, and be creative.

The project will be worth two quiz grades

For this project you will need to:

1. Collect 10 leaf samples from the school campus or your neighborhood, label them, and create a way to display them to your classmates.
2. Write a one-page double spaced essay about the seasons in New England. (Why are their 4 seasons in N.E.? What is the temperature like? Why do leaves change color? What is your favorite season?)

Keep in mind:

- ❖ **SOME** class time will be used for this project.
- ❖ I will show you how to keep the leaves from going bad by being rubbed, pressed or dried.
- ❖ You can be as creative as you want with the presentation of the leaves. You can make a book, a poster, or anything else you can think of.
- ❖ You must keep track of all of your leaves.
- ❖ You can use any information from class in your essay as long as it is in your own words.
- ❖ You will have to share and explain your presentation with other students.



Journaling Guidelines

You will need one notebook that you will not use for any other classes.

♣ The goal of a journal is to:

- record what you observe
- describe what you feel
- develop your writing skills
- develop your observation skills
- get you outdoors
- think about discussions from class
- share your opinion

♣ Many times we will go outdoors to write but other times you will be writing in class or for homework.

♣ No one will read your journal except for you and me, unless you choose to share it with the class.

♣ You do not need to worry about grammar or spelling because the journal will never be graded for errors.

♣ You should write anything that you are thinking or feeling.

♣ You may include drawings in your notebook.

♣ When writing in your journal you should write for about 20 minutes without stopping.

♣ If in class you run out of ideas to write about then stay sitting and relax.

♣ Bring a bilingual dictionary with you when we go outside because you won't be able to ask other students.

Begin every journal entry with a date.

The journals will be collected at the end of each semester as a quiz grade. If you miss class or a journal then you need to make it up or your grade will be affected.

What's that tree? Leaf Identification Project

Teacher Name: **Miss Whalen**

Student Name: _____

CATEGORY	4	3	2	1
Leaf Samples	The student collected 10 different leaves and correctly labeled them.	The student collected 10 different leaves but no all were labeled correctly.	The student did not collect all 10 different leaves and/or many of them were not labeled correctly.	There were not enough leaf samples and labels.
Display of Samples	The leaf samples were very organized and nicely displayed in a format that was easy to understand and a pleasure to look at.	The leaf samples were displayed in a way that was organized and enjoyable to look at, but more could have been done to them.	The leaf samples were displayed in a way that was confusing and not very pleasing to look at.	The leaf samples were not organized or displayed in a way to share with others.
Essay	The student submitted a well-written one-page essay that fully discussed the four seasons.	The student submitted a one-page essay but did not include all the necessary information.	The essay was less than one-page and did not include all the necessary information.	The essay was not fully completed.
Creativity	The project showed a lot of creativity in the writing or artwork.	The project showed some good creativity, but the student could have done more.	The project lacked creativity in some parts.	The project showed little to no creativity and was not unique.

Score = _____ / _____

Fall Foliage Vocabulary List

Throughout this unit you will be assigned words to define. You will need to keep all of these definitions together where you can locate them for class or quizzes.

1. Foliage
2. Temperate
3. Tropical
4. Classification
5. Family
6. Species
7. Trunk
8. Branches
9. Chlorophyll
10. Bark
11. Roots
12. Veins
13. Leaf
14. Deciduous
15. Coniferous
16. Hibernation
17. Migration
18. Stock up
19. Photosynthesis
20. Observation
21. Pigment
22. Absorb
23. Carbon Dioxide

Essential Questions

What makes New England unique from other places in the world?

Why are there four seasons in N.E. and how are they different?

How does the nature/weather here differ from other countries?

How do leaves make food for the tree and why do they change color in the fall?

What are the kinds of trees common in N.E.?

Where do some animals go in the winter and what do others do to survive here?

What do trees need to be healthy and how do they help us to be healthy?

What other activities or foods are connected with the Fall season?

State Standards

ELL Benchmarks

Listening and Speaking (S)

S.1 Vocabulary: Students will comprehend and communicate orally, using English vocabulary for personal, social, and academic purposes. (FL 1, 2, 4, 5, 6, 7; ELA 4)

S.2 Social Interaction: Students will comprehend and communicate orally, using spoken English for personal and social purposes. (FL 1, 2, 4, 5, 6, 8; ELA 5, 6)

23. Ask and answer questions (such as *Who? When? Why?*). (FL 1.3)

24. Express one's own opinions, preferences, and wishes related to familiar topics.

29. Respond during interpersonal discussion

S.3 Academic Interaction: Students will comprehend and communicate orally, using spoken English to participate in academic settings. (FL 1, 2, 5, 6, 7; ELA 1, 2, 5)

32. Demonstrate comprehension of the main points of classroom discussions.

30. Demonstrate comprehension of oral questions that are based on academic content.

39. Respond to factual and inferential questions that are based on academic content.

40. Describe how two things within a given academic content are alike or different.

43. Participate in classroom discussions and activities, when frequent clarification is given.

50. Take notes (using *graphic organizers*) while listening for specific information.

S.4 Presentation: Students will present information orally and participate in performances in English that demonstrate appropriate consideration of audience, purpose, and the information to be conveyed.

5. Use teacher-developed assessment criteria to prepare oral presentations.

6. Make informal oral presentations that have recognizable organization (such as *sequence, summary*).

7. Give formal oral presentations that focus on specified academic content, using appropriate vocabulary and syntax, recognizable organization, clear pronunciation, eye contact, and appropriate volume and intonation.

Writing (W)

W.1 Prewriting: Students will plan for writing in English by building on prior knowledge, generating words, and organizing ideas for a particular audience and purpose.

7. Organize information about a topic into a multi-paragraph format with an introductory paragraph, supporting paragraphs, and a concluding paragraph.

W.2 Writing: Students will write in English for a variety of purposes with clear focus, coherent organization, and sufficient detail.

7. Write a paragraph that provides information and includes a topic statement, supporting details, and a conclusion.

8. Write a multi-paragraph composition with clear topic development, logical organization, and effective use of detail.

Reading (R)

R.1 Vocabulary and Syntax in Print: Students will acquire English vocabulary and apply knowledge of correct syntax to comprehend written text.

14 a. Acquire new words and phrases by determining their relationships to other words.

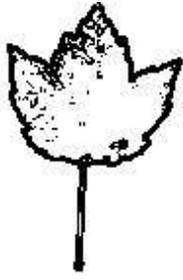
14 d. Use general dictionaries, specialized dictionaries, thesauruses, or related reference tools to increase learning.

R.4 Literary Elements and Techniques: Students will identify and analyze text elements and techniques of written English as used in various literary genres.

a. Identify a common theme or topic of selected texts across genres.

b. Compare and contrast a common theme or topic presented in various genres.

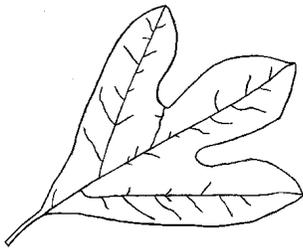
15. Analyze and evaluate how word choice and sentence variety advance an author's intended purpose.



Red Maple



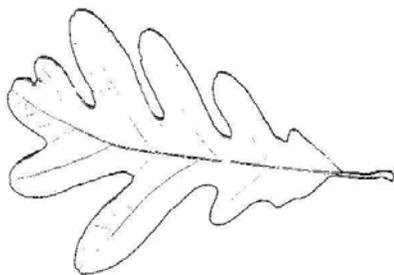
Sugar Maple



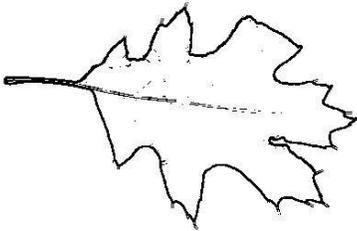
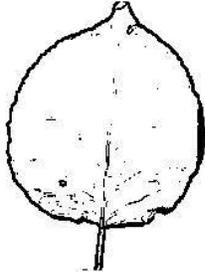
Sassafras



English Oak



White Oak

	<p>Red Oak</p>
	<p>Quaking Aspen</p>



Scarlett Oak



Sweet Gum

AUTUMNAL TINTS

BY HENRY DAVID THOREAU

...A great many, who have spent their lives in cities, and have never chanced to come into the country at this season, have never seen this, the flower, or rather the ripe fruit, of the year. I remember riding with one such citizen, who, though a fortnight too late for the most brilliant tints, was taken by surprise, and would not believe that there had been any brighter. He had never heard of this phenomenon before. Not only many in our towns have never witnessed it, but it is scarcely remembered by the majority from year to year...

...October is the month of painted leaves. Their rich glow now flashes round the world. As fruits and leaves and the day itself acquire a bright tint just before they fall, so the year near its setting. October is its sunset sky; November the later twilight...

...By the sixth of October the leaves generally begin to fall, in successive showers, after frost or rain; but the principal leaf-harvest, the acme of the Fall, is commonly about the sixteenth. Some morning at that date there is perhaps a harder frost than we have seen, and ice formed under the pump, and now, when the morning wind rises, the leaves come down in denser showers than ever. They suddenly form thick beds or carpets on the ground, in this gentle air, or even without wind, just the size and form of the tree above. Some trees, as small hickories, appear to have dropped their leaves instantaneously, as a soldier grounds arms at a signal; and those of the hickory, being bright yellow still, though withered, reflect a blaze of light from the ground where they lie. Down they have come on all sides, at the first earnest touch of autumn's wand, making a sound like rain.....

...It is pleasant to walk over the beds of these fresh, crisp, and rustling leaves. How beautifully they go to their graves! how gently lay themselves down and turn to mould!—painted of a thousand hues, and fit to make the beds of us living. So they troop to their last resting-place, light and frisky. They put on no weeds, but merrily they go scampering over the earth, selecting the spot, choosing a lot, ordering no iron fence, whispering all through the woods about it,— some choosing the spot where the bodies of men are mouldering beneath, and meeting them half-way. How many flutterings before they rest quietly in their graves!

...When the leaves fall, the whole earth is a cemetery pleasant to walk in. I love to wander and muse over them in their graves...

...I am again struck with their beauty, when, a month later, they thickly strew the ground in the woods, piled one upon another under my feet. They are then brown above, but purple beneath.

...These bright leaves which I have mentioned are not the exception, but the rule; for I believe that all leaves, even grasses and mosses, acquire brighter colors just before their fall. When you come to observe faithfully the changes of each humblest plant, you find that each has, sooner or later, its peculiar autumnal tint; and if you undertake to make a complete list of the bright tints, it will be nearly as long as a catalogue of the plants in your vicinity.

Down! Down!

Down, down!
Yellow and brown
The leaves are falling
Over the town.

September is a time
Of beginning for all,
Beginning of school
Beginning of fall.

The sunflower children
Nod to the sun.
Summer is over,
Fall has begun!

Seasons of the Year

(to the tune of "Here We Go Round
the Mulberry Bush")

CHORUS:

Here we go round the year again,
The year again, the year again.
Here we go round the year again,
To greet the different seasons.

Wintertime is time for snow.
To the south, the birds will go.
It's too cold for plants to grow
Because it is the winter.

The leaves are falling
One by one.
Summer's over
School's begun.

Off to school
We go together
In September's
Sunny weather.

"Come, little leaves," said the wind
one day,
"Come o'er the meadows with me
and play:
Put on your dresses of red and gold -
For summer is gone and the days
grow cold."

Here we go round the year again,
The year again, the year again.
Here we go round the year again,
To greet the different seasons.

In the springtime, days grow warm.
On the plants, the new buds form.
Bees and bugs come out to swarm
Because it is the spring.

In summertime, the days are hot.
Ice cold drinks I drink a lot!
At the beach, I've got a spot
Because it is the summer.

Fall is here, the air is cool.
Days are short, it's back to school.

Raking leaves is now the rule
Because it is autumn.

Meish Goldish

Spring

© Paula
Spring

Spring is sunny.
Spring is shinny.
In spring...
flowers start blooming,
butterflies now flying,
bees began stinging,
and birds are back to singing.
Others do have a saying that spring is a time for singing

A Prayer in Spring

Robert Frost (1915)

Oh, give us pleasure in the flowers to-day;
And give us not to think so far away
As the uncertain harvest; keep us here
All simply in the springing of the year.

Oh, give us pleasure in the orchard white,
Like nothing else by day, like ghosts by night;
And make us happy in the happy bees,
The swarm dilating round the perfect trees.

And make us happy in the darting bird
That suddenly above the bees is heard,
The meteor that thrusts in with needle bill,
And off a blossom in mid air stands still.

For this is love and nothing else is love,
The which it is reserved for God above
To sanctify to what far ends He will,
But which it only needs that we fulfil