

Fall Colors

**NewsDepth** October 16, 2008

Classroom Activities

Online Lessons and Multimedia



### **Overview:**

Every fall, nature puts on a brilliant display of color in many parts of the United States. From vibrant red to bright yellows, the leaves transform, showing their rich and colorful hues. The foliage season begins in early September in the northern regions and ends in the southern regions in late October or early November. The leaves finally turn brown and fall off in the winter. Thousands of tourists come from all over to take in the beautiful sights, especially in New England which is famous for its fall foliage. In today's activities, students will discover what causes this transition, write about it, and learn how they can enjoy it.

**Grade Levels:** 4-5

**Subjects:** Science, Math, Language Arts

### **Classroom Activities:**

#### 1. Activity #1 **Discovering the "Miracle of Fall"** (30 minutes)

- Take a short walk around the school (if there are trees around) and have students discover all of the colors of the leaves. Have them gather one of every color, if possible, to take back to the classroom.
- If a walk is not possible, bring into class a green, red, orange, yellow and brown leaf.
- Visit <http://photo.net/photo/travel/foilage.html> for beautiful pictures of foliage in New England to supplement what they saw in the NewsDepth feature.
- Ask students questions about the leaves. Do they know why they are all different colors, etc.
- The following resources will help your students discover why the leaves are all different colors.
  - <http://www.na.fs.fed.us/spfo/pubs/misc/leaves/leaves.htm> Why Leaves Change Color – a very good, simple and clear explanation with images.
  - <http://www.sciencemadesimple.com/leaves.html> Why Do Leaves Change Color in the Fall – good images and illustrations
  - <http://www.state.me.us/doc/foilage/kids/movie.html> A short, well done, video clip about why and how leaves change color. The state of Maine is highlighted in the video.

3. Activity #2 **Interview with Mother Nature** (15-20 minutes)

- Bring into class one of each: a green, yellow, red, orange, and brown leaf.
- Dress yourself as “Mother Nature” (a time to be creative – and yes, you guys teachers, you can be even more engaging as “Mother Nature”!)
- Ask students what the signs of the fall season. Changing leaves is just one: encourage them to think of other signs.
- Tell students that they are going to get to “Interview Mother Nature.” Ask them to describe the character of Mother Nature.
- Have each student write down a question to ask her. Follow with a question and answer period. Write down the questions that you can’t answer and have students take those questions home and have their parents help them find the answer. They are to return to class the next day with answers to their questions.
- An extend Mother Nature Lesson can be found at [http://www.education-world.com/a\\_lesson/02/lp280-02.shtml](http://www.education-world.com/a_lesson/02/lp280-02.shtml)

2. Activity #3 Don’t “Leaf” out a short **Photosynthesis Lesson** (20-30 minutes)

- Print out a copy of this explanation (provided by the US Dept. of Agriculture) of “Why Leaves Change Color” or go to the website and read it with your students. <http://www.na.fs.fed.us/spfo/pubs/misc/leaves/leaves.htm>
- Print out copies of the ten question true or false quiz and have students fill them out, or once again, just visit the site and go over the questions as a class:  
[http://www.educationworld.com/a\\_lesson/TM/WS\\_fall99\\_photosynthesis.shtml](http://www.educationworld.com/a_lesson/TM/WS_fall99_photosynthesis.shtml)  
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3. Activity #4 Writing activity – “**Simple Similes about the Splendor of Fall**” (20 minutes- a full class period)

- Present students with some sample similes:
  - The leaves are as orange as a pumpkin.
  - The air is as crisp as an apple.
  - The trees are as colorful as the rainbow.
  - The pumpkins are as big and as round as the sun.
- Have students think of all of the elements of fall that can be described with similes (leaves, pumpkins, trees, sky, apples, etc.)
- Have them write 4-6 similes and copy them onto paper they decorate with pictures of fall. They can draw and color or use construction paper to make their images.
- Samples of similes can be found at:  
<http://hill.lps.org/06WisemillerSimiles/index.htm>  
<http://hill.lps.org/06SchreinerSimiles/index.htm>



## Online Lessons:

### 1. Math Lessons:

#### **Graphing Greenery**

[http://www.education-world.com/a\\_lesson/02/lp280-01.shtml](http://www.education-world.com/a_lesson/02/lp280-01.shtml)

Students gather leaves and trace them on graph paper. They plot coordinates that approximate the shape of the leaves.

#### **Leaf Weight Loss Plan**

[http://www.education-world.com/a\\_lesson/02/lp280-04.shtml](http://www.education-world.com/a_lesson/02/lp280-04.shtml)

Students measure the weight of a container of leaves daily to discover how quickly it grows lighter as the foliage dries.

### 2. Fall Foliage WebQuest:

The Extraordinary Color of Leaves (a WebQuest for 4<sup>th</sup> graders)

<http://cuip.uchicago.edu/~cbradley/leaves/extraordinary>

### 3. Fall Lessons that emphasize language arts, math, and science

[http://www.education-world.com/a\\_lesson/lesson280.shtml](http://www.education-world.com/a_lesson/lesson280.shtml)

## Additional Resources:

<http://www.teacherplanet.com/resource/autumn.php> A plethora of Lesson plans and worksheets about fall foliage.

[http://www.educationworld.com/a\\_lesson/lesson/lesson138.shtml](http://www.educationworld.com/a_lesson/lesson/lesson138.shtml) Various activities to add color and learning to your lesson plans.

<http://www.urbanext.uiuc.edu/fallcolor/> The Miracle of Fall, an excellent website provided by the University of Illinois with numerous resources about foliage.

<http://www.urbanext.uiuc.edu/reviews/reviews.cfm?id=47> Links and reviews for The Miracle of Fall (resource listed above) with many more useful sites.

[http://www.suite101.com/reference/why\\_do\\_leaves\\_change\\_color](http://www.suite101.com/reference/why_do_leaves_change_color) Many articles related to "Why Do Leaves Change Colors?"

<http://www.lii.org/pub/subtopic/1740> Librarians' Internet Index providing numerous sites relating to fall foliage.