

Lesson Five:

We Walk in Beauty — ACTIVITY #1

NATURE FIELD JOURNALS



Original photograph by Sue Ellen Lyons. Used with permission.

Scientists spend hours using field journals to collect data and important information about their surroundings. This is very important documentation of events and observations as the scientist conducts research. A nature journal, though, includes the thoughts, feelings, sketches, and notes of a more casual observer. In her article “The Nature Journal as a Tool for Learning,” Karen Matsumoto states:

A nature or "field" journal can be much more than a record of scientific facts.... It can include an on-going record of observations from a specific location or over the seasons, and a reminder of where and when to look for particular wildflowers or birds. It can also be a way to save your memories and feelings about nature experiences to keep them fresh in your mind and

Setting The Stage



enable you to share them with others in the future. A nature journal that includes drawings and narrative, as well as a record of a student's thoughts and feelings, can help to tie together science and art, and provide opportunities for creativity and reflection.

Matsumoto, K. (2003). Retrieved December 28, 2004 from <http://www.newhorizons.org/strategies/environmental/matsumoto.htm>

The Barataria-Terrebonne Estuary is a wonderful environment for students to explore and record observations in a field journal. The abundance of plants and animals in the habitats of cypress swamp, fresh, brackish and salt marsh, and barrier islands can provide countless entries into their journals. Students can observe, sketch, paint, and write about plants such as spider lilies, blue irises, cattail, coontail, purple loosestrife, and pickerel weed. The plants of the estuary are some of the most unique and beautiful in the world. They have adapted to varying ranges of salt and fresh water and provide food and shelter for hundreds of animals. Some of the unique critters the students can observe in the estuary include: alligators, muskrat, otters, herons, ibis, kingfishers, gulls, pelicans, crawfish, catfish, crabs and many more. All of these animals inhabit an environment rich in food and shelter. Students will want to observe keenly the interactions and behavior of the animals and plants to get a sense of the wonder and uniqueness of the Barataria-Terrebonne Estuary.



Objectives

STUDENTS WILL

- **identify a minimum of fifteen plants that live in the Barataria-Terrebonne Estuary.**
- **research the life cycle and the special characteristics of a plant from the estuary.**
- **describe the skills necessary to keep a field journal.**
- **use observation, reflection, drawing, and writing during a field trip to create a field journal.**

MATERIALS

- Clipboard
- Plain paper
- Number 2 pencils
- Felt-tip markers
- Black composition notebooks or sketch books
- “Explore Coastal Louisiana with Boudreaux and Marie” (CD-ROM available through BTNEP: Refer to <http://educators.btnep.org/Resources>)
- Field Guides
- Examples of field journals from the Internet sites listed in “Getting Ready.”
- Copies of the handout *Louisiana Wetland Plants* (p.7)
- Copies of the handout *Research: A Louisiana Wetland Plant* (p.8)
- Copies of the handout *My Field Journal: Basic Information* (p.9)

GETTING READY

1. Take a field trip to the Ameen Gallery (NSU) or encourage students to visit on their own.
2. Review the CD-ROM entitled “Explore Coastal Louisiana with Boudreaux and Marie”.
3. Copy the handouts: *Louisiana Wetland Plants*, *Research: A Louisiana Wetland Plant*, and *My Field Journal: Basic Information*.
4. Download examples of field journals to share with the students.
 - Lewis and Clark and naturalist Thomas Nuttall used field journals during their exploration of the northwest. John Bartram, John Muir and Beatrix Potter combined art with text to record their observations. Refer to the following Web site: <http://www.newhorizons.org/strategies/environmental/matsumoto.htm> The site provides excellent information and strategies for using a field journal as a tool for observation, reflection, writing and drawing. It also provides examples of field journals.



- This American Museum of Natural History site gives simple guidelines for keeping a field journal and provides historic reproductions.
<http://www.amnh.org/nationalcenter/youngnaturalistawards/resources/fieldjournal.html>
- On this American Museum of Natural History site, researchers talk about their work and how to keep a field journal.
http://www.amnh.org/learn/biodiversity_counts/read_select/hs/fieldjnl.htm
- This site, *Helpful Hints for Field Sketching*, defines field sketching as observational rendering—trying to capture on paper in two dimensions some aspect of what you are observing. The site offers helpful hints on how to sketch proportions, perspective, volume, and shape.
http://www.amnh.org/learn/biodiversity_counts/read_select/ht/sketching.htm
- This site gives tips on how to field sketch.
http://www.wildchimpanzees.org/educators/pdf/field_sketch.pdf
- Visit Hannah Hinchman’s site to see examples of the illuminated journals she has been keeping for 27 years.
<http://www.morning-earth.org/ARTISTNATURALISTS/AN=Hinmman.html>
- Make reservations for a field trip to one of the habitats of the Barataria-Terrebonne Estuary. See self-guided tours. This guide, provided by the Barataria-Terrebonne National Estuary Program, offers information about the estuary and a list of tours by location: <http://www.btnep.org/default.asp?id=114>. For detailed information about the hiking trails in various areas of the Barataria Preserve in the Jean Lafitte National Historic Park visit the web site:
http://gorp.away.com/gorp/resources/us_nhp/la/hik_bata.htm

PROCESS

1. Provide students with copies of the handouts: *Louisiana Wetland Plants* and *Research: A Louisiana Wetland Plant*.
2. Facilitate the research of Louisiana wetland plants by providing students with books, guides, and access to computers.
3. Ask students to choose one plant to investigate. They will record their findings on the graphic organizer *Research: A Louisiana Wetland Plant* and sketch their plants using pens, pencils, or watercolors.



4. Discuss how scientists use field journals. Provide the students with examples of journal entries available on the Internet.
5. Discuss with students how to make a field sketch: proportion, perspective, volume, shape, color and details. If possible, enlist the assistance of an art education/talented art student.
6. Take students on a field trip to the estuary or to a verdant area on or near the school campus. Guide them in choosing one plant to observe.
7. Ensure that each student has a sketchbook or composition book and several pencils for the field trip. Paste the handout *My Field Journal: Basic Information* onto the back of the book.
8. Encourage the students to actively observe their plants, to respond to the questions:
 - What do I see?
 - What do I hear?
 - What do I feel?
 - What do I smell?
9. Instruct the students to use their handout *My Field Journal: Basic Information* to assist them in recording their immediate observations of the general environment as well as the most important features of the plants.
10. Ask students to make a sketch of the plant in its natural environment.
11. When students return from the field trip, they should:
 - consult references and compare their notes and illustration with the formal descriptions;
 - prepare a presentation;
 - share their observations and illustrations.

ASSESSMENT

Alternate Assessment: Use the acrostic poem in “Extensions” to assess knowledge gained from the journal exercise.

Use the handout *Rubric: Field Journal* (p.6) to assess student work.

EXTENSIONS

1. Have students take digital photos to record a specimen for later reference. They can use photos to include information pertinent to field journal entries documenting the part of the plant, when it was collected, who collected it, etc.
2. Have students observe, sketch and record information about the elements of the natural environment in their neighborhood.
3. Students can research the many ways in which local Native Americans and early European settlers used plants.
4. Encourage students to write an acrostic poem about a plant from the estuary. To write an acrostic poem:
 - Write the name of your plant vertically on the paper.
 - Use the first letter of each line as the first letter of your word or phrase
 - You may use as many words in each line as you wish.

Refer to the following example “Wild Iris” by Virginia Henry.

WILD IRIS
Wild wonderful flower
Inhabiting Louisiana’s wetlands
Living as you did centuries ago, reproduced through
Dense systems of rhizomes that lift you to the surface each
April.

In spite of intrusions of saltwater, you
Remain in our natural environment
Intending to touch our senses with your
Spring splendor.



5. Research methods used to preserve plant specimens using a plant press. Groups of students can work together to construct an “herbivory,” a library or a scrapbook of preserved plants. Each page should include a leaf or leaf cluster on a stem, as well as a flower.

HANDOUT:

RUBRIC: FIELD JOURNAL

NAME

DATE

Criteria	4	3	2	1	Points
Organization (x 3)	Observations are organized in a chronological and logical manner. They are easy to read.	Observations are, for the most part, organized chronologically and logically. They are fairly easy to read.	Observations are not very chronological or logical. They are difficult to read.	No organization is evident. Observations are unclear and confusing.	
Content (x 4)	Observations include the date, location, time, weather conditions, and detailed descriptions of flora.	Observations include most of the required elements and brief descriptions of flora.	Observations contain few of the required elements. Description of flora is vague.	Required elements are not included. Description of flora is inaccurate.	
Narrative (x 4)	The writing provides a clear, relevant, and accurate record of observations, thoughts, and feelings.	The writing provides an adequate record of observations, thoughts, and feelings.	The writing provides some observations, but no record of thoughts and feelings.	The writing provides little evidence of observations, thoughts, and feelings.	
Sketches (x 4)	Sketches provide many details that give evidence of careful observation.	Sketches provide adequate detail and some evidence of observation.	Sketches have few details and are not a useful record of observations.	Sketches do not provide evidence of careful observation.	

Total Possible Points = 50

TOTAL POINTS =



FRESH MARSH

Alligator Weed	Louisiana Iris	Spike Rush
Arrowhead	Marsh Mallow	Water Lily
Water Hyacinth	Blue-eyed Grass	Cattail
Parrotfeather	Bull Tongue	Butterweed
Water Milfoil	Pickrel Weed	Pondweed
Button Bush	Wild Geranium	Primrose
Water Primrose	Red Rattlebox	Coontail
Wild Onion	Royal Fern	Willow
Daisy Reabane	Wood Sorrel	Smartweed
Duckweed	Spatterdock	Elodea
Spider Lily	Lizard's Tail	Spiderwort

RIDGE HABITAT

Rattle Box
Hercules Club
Live Oak
Hackberry

SALT MARSH

Black Mangrove	Groundselbush
Salt Marsh Mallow	Creeping Glasswort
Needlegrass	Spartina patens
Deer Pea	Salt Grass
Three-cornered Grass	

BOTTOMLAND HARDWOODS

Box Elder	Blackberry	Water Oak
Red Mulberry	Holly/Yaupon	Sweet Gum
Poison Ivy	Hickory	Hackberry
Wax Myrtle	Black Willow	Elderberry
Hawthorn	Sweet Briar	American Elm

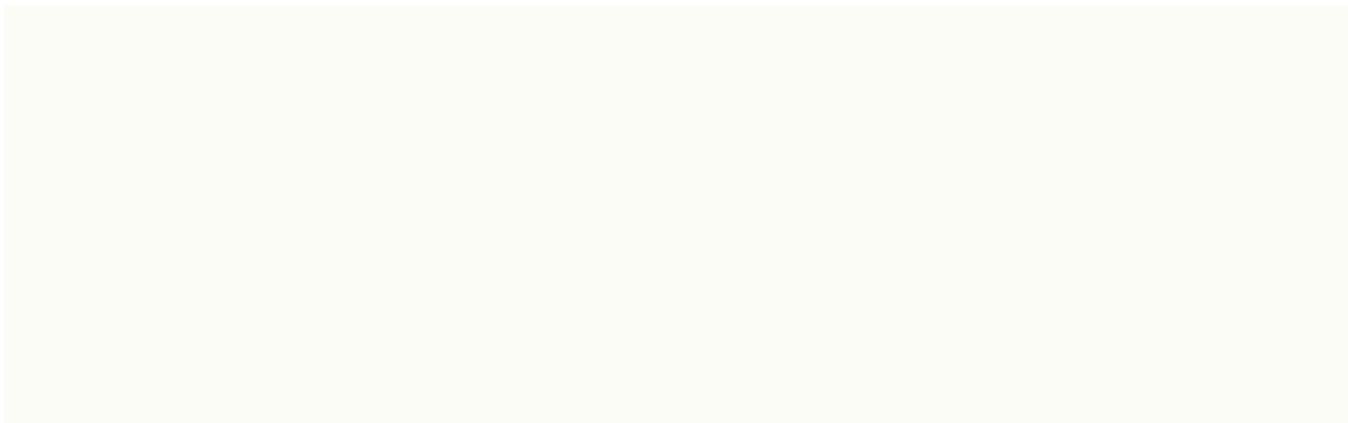
CYPRESS-TUPELO SWAMP

Bald Cypress	Water Tupelo
Mosquito Fern	Coontail
Swamp Red Maple	Palmetto
Black Willow	Pumpkin Ash
Green Ash	Spider Lily
Louisiana Iris	Duckweed
Day Flower	Button Bush
Swamp Black Gum	Water Milfoil
Widgeon Grass	Lizard's Tail

**HANDOUT:****RESEARCH: A LOUISIANA WETLAND PLANT**

Name of Plant	
Scientific Name of Plant	
Description: Habitat	
Description: Size	
Description: Colors	
Description: Distinguishing Features of Plant Parts, i.e., leaves, petals, stems, etc.	
Description: Shapes	
Description: Textures	
Description: Season	
Interesting Facts	

Make a sketch of your Louisiana Wetland Plant





MY FIELD JOURNAL: BASIC INFORMATION

DATE:

LOCATION:

TIME:

WEATHER CONDITIONS (e.g., CLOUDY, SUNNY, WINDY, RAINY, HUMID):

SOIL CONDITIONS (e.g., MOIST OR DRY):

COLOR OF THE VEGETATION:

TEXTURE OF THE VEGETATION (i.e., HOW IT FEELS TO THE TOUCH):

SIZE OF THE VEGETATION:

SOUNDS:

THOUGHTS AND FEELINGS I HAVE AS I WALK THROUGH THE HABITAT:

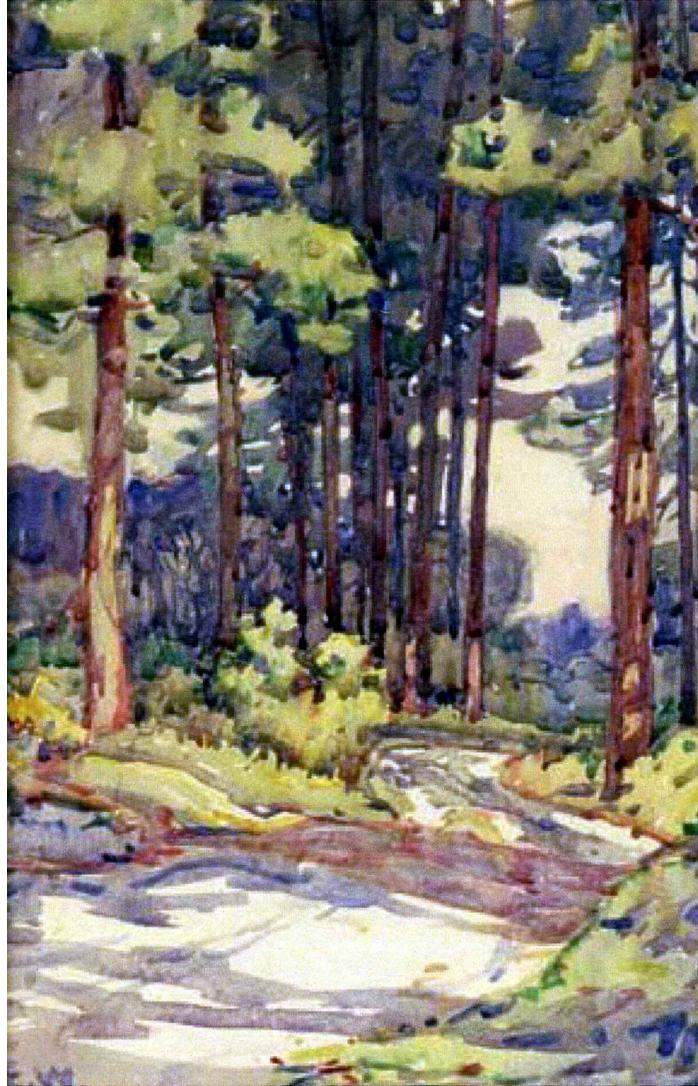
QUESTIONS I HAVE ABOUT MY PLANT:

INTERESTING FACTS ABOUT MY PLANT:

A SKETCH OF MY PLANT:

LEAF SHAPE:

ACTIVITY #2: NATURE'S WATERCOLORS



Ellsworth Woodward
Abita Springs, 1931
Watercolor on paper
111.351

The Ogden Museum of Southern Art, University of New Orleans
Gift of the Roger H. Ogden Collection

Art is born of the observation and investigation of nature.

~Cicero (106 BC - 43 BC)

Quotations by Subject (n.d.). Retrieved January 2, 2005 from
<http://www.quotationspage.com/subjects/art/>



MATERIALS

- Handouts: *The Elements of Art*, *The Principles of Design*, *The Meaning of Art* (pp. 14-15), *Watercolor Techniques* (p.16)
- Examples of watercolor paintings of plants from the Ameen gallery or the Ogden Museum of Southern Art
- Student quality watercolor paints (Use those in tubes since they last the longest.)
- Brushes (1 inch flat, Number 2 round, and Number 6 round)
- 2B pencils
- Sponges
- Paper towels
- 140 lb paper
- Cardboard and masking tape (for taping down your paper)
- Water containers
- White plastic or Styrofoam plate for paints
- Towel or paper to cover worktables

Objectives

STUDENTS WILL:

- **analyze a painting and discuss the elements of art, the principles of design, as well as its meaning.**
- **investigate the techniques of watercolor painting.**
- **create a watercolor painting of a plant in the estuary.**

GETTING READY

1. Copy handouts that give information about the elements of art, the principles of design and the discovery of the meaning of art.
2. Copy handout that describes techniques used in watercolor painting. Download from the Internet or collect prints of watercolor paintings to use in discussing the elements of art and the principles of design. Review images from the Ameen Gallery or The Ogden Museum of Southern Art. <http://www.ogdenmuseum.org/collections>

3. Cut sheets of watercolor paper into 12” x 12” squares for students to use to experiment with techniques for working with watercolor paints. Each student will need six squares.
4. Collect materials listed above for watercolor painting.
5. Place paint colors on the plates.
6. Practice various watercolor techniques or arrange for an art educator or talented art student to demonstrate the techniques.

PROCESS

1. Students should be familiar with the color wheel. (Some students may need a brief review.) A color wheel can be downloaded from www.sanford-artadventures.com. Click on “Study Art”.

- Primary colors: red, yellow, blue
- Secondary colors: orange, green, and violet
- Intermediate colors: red-orange; red-violet; yellow-orange; yellow-green; blue-violet; blue-green



2. Review/discuss the handouts *The Elements of Art*, *The Principles of Design*, and *The Meaning of Art*.
3. Use the handouts to analyze several watercolor paintings you have collected.
4. Divide the students into small groups to analyze a watercolor painting. Have them use the handout to discuss elements of art, the principles of design, and what meaning they discover.
5. Allow the groups to share their findings with the entire class.
6. Discuss the basic steps and materials used in creating a watercolor painting.
7. Provide each student with the handout *Watercolor Techniques*.
8. Arrange for the art educator or talented art student to demonstrate watercolor techniques.
9. Guide the students in practicing the techniques used in watercolor painting.
10. Give students the opportunity to choose the subject of their painting. It may be one of the wildflowers or plants they researched or sketched on the field trip, or it may be a landscape painting of one of the habitats of the estuary.
10. Display students’ watercolor paintings throughout the school environment.

ASSESSMENT

Use correct terminology (Refer to the handouts on the elements of art and principles of design) to analyze a watercolor painting. To create a rubric for “Analysis of a Work of Art” go to Rubistar at <http://rubistar.4teachers.org/index.php>.

EXTENSIONS

Plan a field trip to an art museum such as The Ameen Gallery or Ogden Museum of Southern Art. Provide parents with information about current exhibits and opportunities for sharing art with their children.



Ellsworth Woodward
Iris Field Near Newcomb Greenhouse, 1911
L 2004.23.1
The Ogden Museum of Southern Art, University of New Orleans
Gift of the Roger H. Ogden Collection



HANDOUT:

THE ELEMENTS OF ART

COLOR

Does the piece of art use primary or secondary colors?
Are the colors warm, cool, muted, bold, or pastel?
Does the artist use one color more than others?

SHAPE

Does the piece of art contain geometric, organic, or natural shapes?
Describe the shapes. Are they round, rectangular, triangular, irregular, or spiral?
Are there other words you can use to describe the shapes?

LINE

What kind of lines do you see in the piece of art?
Are they straight, vertical, horizontal, diagonal, squiggly, zigzag, thick, or thin?

VALUE

Does the piece of art have highlights or shading?
Do some areas look darker or lighter than others?

TEXTURE

What kind of texture do you see?
Is it visual texture created by the artist or is there actual texture in the piece of art?
Is the texture rough or smooth?

SPACE

Look at the way the artist has used space in the piece of art.
What do you notice about the background, the middle ground, and the foreground?
Are there objects or people that look close to you or far away?
Do some parts of the artwork look 3-dimensional?
Does the space feel full or empty?

HANDOUT:

THE PRINCIPLES OF DESIGN

REPETITION

Does the artist use patterns or elements over and over throughout the piece of art?
Does the artist use lines, shapes, colors, or textures to create patterns?

BALANCE

Is the painting symmetrical or asymmetrical?
(When you look at both sides of the artwork, does each side look almost the same or does each side look different?)

CONTRAST

Does the artist use complementary colors or opposite colors?

CENTER OF INTEREST

Is there a focal point in the piece of art?
What element do you become aware of first?
How has the artist drawn your eyes to this particular part of the artwork?

MOVEMENT

How do your eyes move around the piece of art?

UNITY

How does the piece of art come together as a whole?

FINDING MEANING IN A PIECE OF ART

EXPRESSION

What is the overall feeling or mood when you observe this piece of art? Give examples.

SYMBOLS

What images in the work of art could stand for something else?
If there are symbols, how do they affect the meaning of the art?

MESSAGE

Does the artist depict the subject in a realistic manner?
Is the artist expressing a feeling or mood?
Is the artist making a social, moral, or spiritual comment about a particular subject?

After considering all of these elements of the piece of art, describe the feelings it evokes in you. Begin your description with the words, "I think this work of art is about . . ."

WET-ON-WET TECHNIQUE: CREATING A WASH

A wash is a very thin coat of paint. Because it is transparent, you can still see the paper underneath the wash. Washes are useful for backgrounds or flat light areas like the sky or a body of water. Washes are created with a technique called “wet on wet,” because the painter is painting with a wet brush on wet paper. Use a thick brush to paint clean water evenly across the paper. The paper should be wet, but it should not have any puddles on it. Choose a color and paint across the paper in a horizontal band. Continue with the same color or use another color to paint a band next to the first one; the bands should be barely overlapping. Dilute the pigment with slightly more water for each horizontal stroke. Notice how the colors bleed and blend. Make sure you just brush each area once or twice. When you are finished, let it dry completely.

DRY BRUSH TECHNIQUE

Use this technique for painting areas that require greater control and more saturated colors. It may be used to create the foreground of a landscape, the center of interest. The painter works with a slightly wet brush loaded with pigment on dry paper. Notice the textures, hard edges, and sharp details. Experiment with this technique by painting abstract lines and shapes. Change the amount of water and paint used and blend some colors.

EXPERIMENTING

Color Shades and Tones: Try adding black to a color; mixing color complements (e.g. red and green); adding lots of pigment; or mixing a color with any other color.

Different Brush Strokes: See what happens when you point or flatten the tip of the brush, add lots of water to the brush, or dry it out. Experiment with various types/sizes of brushes.

Texture: Paint with “watery” paint and then blot it lightly with a sponge or paper towel.

INTERNET

Check out the URL <http://www.johnlovet.com/techniq.htm> for descriptions and examples of various watercolor techniques.

Watercolor Tutorials provide a step-by-step guide to painting watercolors. There is also a tutorial on how to paint a watercolor of a Purple Iris. <http://www.watercolorpainting.com/>

RESOURCES

WEB SITES

This is the home site for the Barataria-Terrebonne National Estuary Program. It provides resources for teachers that are organized by topic, media type, and grade level.

<http://educators.btnep.org/Resources>

A treasure of images is provided on this site as well as lesson plans and other valuable information for teachers.

<http://www.ogdenmuseum.org/collections>

This site provides an excellent lesson plan for teaching watercolor techniques.

http://www.sanford-artedventures.com/teach/wtrclrtechniques_procedure.html

Watercolor Tutorials provide a step-by-step guide to painting watercolors.

<http://www.watercolor-online.com/Articles/Articles.phtml>

Watercolor & Watermedia Instruction: Tips & Demos

http://www.fountainstudio.com/watercolor_tips.html

This site provides information about southern wetland flora. It contains an excellent glossary of floral terms and an alphabetical list of species.

<http://www.npwrc.usgs.gov/sitemap.htm>

A description of estuaries as well as pictures and habitats can be found at:

<http://www.epa.gov/OWOW/estuaries/about1.htm>

This site describes the use of plants by Native Americans for food, ceremonial artifacts, and medicines.

<http://www.plant-materials.nrcs.usda.gov/kspmc/culturallysignificant.html>

BOOKS

Easton, J. (2003). *Watercolors for the fun of it: Flowers and leaves*. Cincinnati, Ohio: North Light Books.

Hinchman, H. (1997). *A trail through leaves*. New York: Norton & Company.

Willenbrink, M. & Willenbrink, M. (2003). *Watercolor for the absolute beginner*. Cincinnati, Ohio: North Light Books.

