











# Technology-Connected Lesson Plan

<b>Title:</b>	<b>Look At Those Leaves!</b>
Grade Levels:	Grades 2 <sup>nd</sup> - 4 <sup>th</sup>
Curriculum Areas:	Language Arts & Science
Measurable Objectives:	<ul style="list-style-type: none"> <li>☞ TLW observe, measure, and sort tree leaves.</li> <li>☞ TLW examine leaves individually, in groups, and in relationship to the entire tree.</li> </ul>
LA Content Standards:	<ul style="list-style-type: none"> <li>☞ <b>LS-E-A3</b> - locating and comparing major plant and animal structures and their functions;</li> <li>☞ <b>LS-E-B2</b> - observing, comparing, and grouping plants and animals according to likenesses and/or differences;</li> <li>☞ <b>ELA-1-E6</b> - interpreting texts to generate connections to real-life situations;</li> </ul>
Grade Level Expectations (GLE)	<ul style="list-style-type: none"> <li>☞ Science As Inquiry - Use a variety of methods and materials and multiple trials to investigate ideas (observe, measure, accurately record data) (SI-E-A2)</li> <li>☞ Physical Science - Compare and classify objects on properties determined through experimentation</li> </ul>
K12 Educational Technology Standards:	<ul style="list-style-type: none"> <li>☞ Use a variety of developmentally appropriate resources and productivity tools (e.g., logical thinking programs, writing and graphic tools, digital cameras, graphing software) for communication, presentation, and illustration of thoughts, ideas, and stories (e.g., signs, posters, banners, charts, journals, newsletters, and multimedia presentation.) (1,3,4)</li> <li>☞ Use technology tools (e.g., publishing, multimedia tools, and word processing software) for individual and for simple collaborative writing, communication, and publishing activities for a variety of audiences. (1,3)</li> </ul>
Technology Connection:	<ul style="list-style-type: none"> <li>☞ Trees are Terrific...Travel with Pierre <a href="http://www.urbanext.uiuc.edu/trees1/index.html">http://www.urbanext.uiuc.edu/trees1/index.html</a></li> <li>☞ PowerPoint Slideshow (pictures of leaves from the Internet)</li> <li>☞ Infocus Projector (optional)</li> </ul>

Procedures:

- 🖥️ Start the lesson off by reading Shel Silverstein's, "The Giving Tree"
- 🖥️ After the story, discuss the different uses of a tree.
- 🖥️ I prepared a PowerPoint slideshow showing different pictures of trees and leaves that I found on the Internet. The slideshow continued to play during our class discussion.
- 🖥️ Inform the students that today's lesson will focus on leaves. Take the students outside for a "Leaf Walk." Give each student a lunch size paper bag and encourage students to collect many leaves and different kinds of leaves.
- 🖥️ During the walk, ask student questions such as:
  - Where do you see leaves?
  - Do you see leaves anywhere else?
  - What do you notice about the leaves?
  - What do you notice about the trees?
  - Do all the trees have the same kind of leaves?
  - Besides leaves, what other parts of a tree can you see that were mentioned in the story?
- 🖥️ If it is not a good time of year for viewing leaves on trees, you could have students look through books or online photographs of leaves.
  - <http://www.esf.edu/pubprog/brochure/leaves/leaves.htm>
  - <http://www.desktoppictures.com/pictures/colorful-leaves/index.html>
  - <http://icelandiscool.com/photos/picturesofleaves.htm>
  - <http://www.snap-shot.com/pages/flower/leaves.html>
- 🖥️ Give students time to examine the leaves and share with each other their observations. Ask the following questions:
  - Do all the leaves look the same?
  - How are the leaves different?
  - Are there any features that all the leaves have in common?
  - How many 'points' do the leaves have?
- 🖥️ A more complex way of grouping is to have students not only consider size, but also measurement. To help students begin thinking about measurement, you might ask them questions like, "How many paperclips long do you think this leaf is?" or "How many cubes long do you think this leaf is-more than 5 or less than 5?" Once students begin estimating, they will likely be eager to find the answer.

-  Before students can understand what a unit of measurement means, they need experience with the process of measurement. Exposure to many different kinds of measuring tools in a free-exploration situation allows students to experience the act of measuring. You can put the leaves on a table and make rulers, paper clips, string, tape measures, and yardsticks available. It is not important at this stage that they measure accurately, but it is critical that they have this open-ended experience with tools of measurement. They are measuring, and thinking about their leaf in measurement terms.
-  Have the students record their information by drawing the leaf and putting the results of the unit of measurement used next to the picture.
-  Now that students have had some hands-on opportunities to examine leaves, it would be a good time to introduce them to the site, [Trees are Terrific... Travels with Pierre](#).
-  Students now have a solid base for thinking about leaves in relationship to the whole tree. You might begin a discussion about this by asking students if they think their leaves will always look the same. You could also ask them what they think their leaves would look like if they had collected them at a different time of year.
-  Through class discussion and questioning, help students realize that each season, every year, the leaves do the same thing. You might ask students to consider what other things in their environment change. Ask questions that help relate leaves changing to a change with which they are familiar.
  - What does the leaves changing remind you of?*
  - Where have you seen this change?*
  - What do you think causes this change?*
  - What kinds of things can you change?*
-  Talk about how some changes repeat themselves. These patterns of change are cycles and part of our environment.
-  (Optional) One way for students to reflect upon their leaf experiences is allow them to use the Infocus projector to describe the different properties about a chosen leaf from their collection (encourage them to include size, shape, and color).
-  Journal Writing Ideas
  - When I look at my leaf, this is what I see.

	<p>This is what I want to remember about my leaf.  This is what I can tell you about my leaf.  There are a lot of ways to sort leaves, for example....  This is how leaves change over time.</p> <ul style="list-style-type: none"> <li>📖 Art - Allow students to do the leaf prints describe in the video from <a href="#">Trees are Terrific... Travels with Pierre</a>. Review simple and compound leaves from the online site and how their prints should show the veins of the leaves.</li> </ul>
Materials:	<ul style="list-style-type: none"> <li>📖 "The Giving Tree" by Shel Silverstein</li> <li>📖 Various measuring tools (rulers, paper clips, string, tape measures, yardsticks)</li> <li>📖 Variety of leaves (different types, shapes, etc)</li> <li>📖 Lunch size paper bags</li> <li>📖 Paper &amp; crayons/markers</li> </ul>
Assessment:	<ul style="list-style-type: none"> <li>📖 Participation &amp; Observation</li> <li>📖 Journal Writings</li> </ul>
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