

A proposal for a web-based instructional unit:
“Visiting Greenfield Lake Park”
March 10, 2008
Gillispie, Lanier, and Strauss

Prepared for Cape Fear Riverwatch
And fulfilling a requirement for MIT 513

Purpose

This instructional module is designed to present an overview of Greenfield Lake Park (GLP) by providing introductory information to potential visitors. It will be accessed from the CFRW website and be branded as a UNCW MIT project in collaboration with CFRW. The intended users are visitors to the CFRW website and will range in age from elementary school-age children to adults. Because of the wide age range of potential users, the module will present basic information regarding the park, activities available, and an introduction to the flora and fauna found in the surrounding habitat. The instructional module will provide access to useful information about the many aspects of Greenfield Lake Park, and it will promote and attract visitors to the lake. It is our hope to showcase this wonderful resource while educating the public about the park and the life that inhabits the environment there.

Instructional Problem

Greenfield Lake Park attracts many visitors each year, especially families, due to the variety of activities available. Parents visiting the park often have a common set of questions regarding park facilities and amenities (parking, picnic areas, and available activities). Inquisitive children, visiting with their families, are typically curious about the wildlife living in and around the lake. It is not uncommon for children to ask their parents a question like, “What sort of tree is that?” or “What kind of birds are those?” Visitors to GFP may not fully appreciate and or be able to discuss with their children the lake environment and its inhabitants. Parents may feel ill-equipped when children ask questions like "What is that green stuff in the lake?"

Providing necessary park information prior to the visit can improve the quality of the family visit and hopefully, result in a return to the park at a later date. The virtual park experience prior to the actual visit can be the starting point for a dialogue between children and their parents or possibly teachers, concerning the local wildlife and environmental issues surrounding the lake. By giving parents simple answers to common question about the lake and its environment, families will enjoy and use the lake more.

A Web-based Instructional Module is the Solution

Time is tight and a web-based instructional module allows for the user to gather information twenty-four hours a day, seven days a week via the Internet. Busy parents will use the Internet to search for Greenfield Lake Park in order to get logistical information such as directions, activities and parking. With this module, we hope to expand the use of the CFRW site (where the instructional module is hosted and accessed) to include learning activities about the lake’s inhabitants, and environmental issues affecting the park. The web-based instructional module format allows for:

1. Persistent access to the information, via the Internet.
2. Exploration of the material on their own time, at their own pace and potentially, multiple times, depending on the learner’s needs.
3. A fun learning experience for both adults and children.
4. Assessment activities that provide feedback to the user and reinforce the learning process.
5. Interaction with subject matter experts working within the park and can be easily accessed by a large population.
6. A multimedia experience to entice visitors of all ages.
7. Learners to be motivated to visit the park and experience the things viewed in the module.

Target Audience

This module is designed to provide general information for visitors to Greenfield Lake Park and will potentially be used by both adults and children. The age, educational levels and computer abilities of adult visitors will vary greatly and therefore, the module will need to be user friendly on an introductory level. This will also allow the module to be easily accessible to a wide range of children. The program will target both new and returning visitors to the park. The target audience will need to have basic computer skills, including knowledge of how to access a website. Additionally, the project team will investigate the possibility of a Spanish Language version of the module to accommodate the large Spanish speaking population of park visitors.

Instructional Setting

This program will be built using the Flash media authoring environment. The targeted audience will be accessing this program from internet connected computers using a web browser. To access the interactive components of the web-based instructional module, the user will need a computer with an Internet connection, a current web browser such as Mozilla Firefox 2.0 or Internet Explorer 7. They will also need the Adobe Flash Player, which is available as a free download at <http://www.adobe.com>. Speakers will allow the user to experience the audio portions of the module. The typical Internet user will already have these components. Because of the highly portable nature of Flash and the web-based delivery of this module, the instruction will be highly accessible. The module will be accessed through a link on the Cape Fear Riverwalk website (<http://www.cfrw.us/>), and can be made available on CD ROM.

Objectives and Test Items

This module will have six objectives. The first two will address some basic park history and provide an orientation to the park. The latter four objectives are focused on the environmental and safety aspects of the park.

#	Objective	Test Item
1	Given a list of statements, the learner will identify true statements regarding the history of Greenfield Lake.	<p>Directions: Identify the correct responses for the question below by using your mouse to place a check in the box(s) to the left of each statement that is true.</p> <p>Which of the following statement(s) concerning Greenfield Lake is/are true?</p> <ul style="list-style-type: none"><input type="checkbox"/> Greenfield Lake started as a mill pond for Mr. Smith in 1906.<input type="checkbox"/> The city of Wilmington made the lake and the park in the 1950's as a memorial for the veterans of WWII.<input type="checkbox"/> A marathon dance contest was conducted at Greenfield Lake and is recorded in the Guinness Book of World Records.
2	Given a list of activities, the learner will identify activities that can be included in a	<p>Directions: Identify the correct responses for the question below by using your mouse to place a check in the box(s) to the left of all true statements.</p>

	<p>day's visit to the park.</p>	<p>Your family may participate in which activities while visiting Greenfield Lake Park?</p> <p><input type="checkbox"/> Biking <input type="checkbox"/> Walking <input type="checkbox"/> Running <input type="checkbox"/> Picnics <input type="checkbox"/> Swings <input type="checkbox"/> Swimming <input type="checkbox"/> Boating <input type="checkbox"/> Fishing <input type="checkbox"/> Bird watching</p>
<p>3</p>	<p>Given two video clips, the learner will identify the video that shows the safest boating behavior.</p>	<p>Directions: Click and watch each of the short videos below. Using your mouse, place a check in the box that represents safe boating behavior.</p> <p><input type="checkbox"/> Video #1 <input type="checkbox"/> Video #2</p>
<p>4</p>	<p>Given pictures of typical trees found about Greenfield Lake, the learner will identify the species' common names by matching the common name to an image of the tree.</p>	<p>Directions: Match the common tree name with its picture by dragging and dropping the common name into the correct box.</p> <p>Southern Magnolia</p> <p>Bald Cypress</p> <p>Cabbage Palm</p> <p>Magnolia</p>
<p>5</p>	<p>Given pictures of birds common to Greenfield Lake, the learner will identify the species' common names.</p>	<p>Directions: Match the common bird name with its picture by dragging and dropping the common name into the correct box.</p> <p>Herring Gulls</p> <p>Mallard Ducks</p> <p>Canada Geese</p>
<p>6</p>	<p>Given a list of possible factors, the learner will identify factors that contribute to the growth of algae in Greenfield Lake.</p>	<p>Directions: Identify the correct responses for the question below by using your mouse to place a check in the box(s) containing the correct answers.</p> <p>Place a check next to the items below that contribute to the growth of algae in Greenfield Lake.</p> <ul style="list-style-type: none"> • Animal waste <input type="checkbox"/> Fertilizer • Fish <input type="checkbox"/> Diesel fuel

Description of Treatment

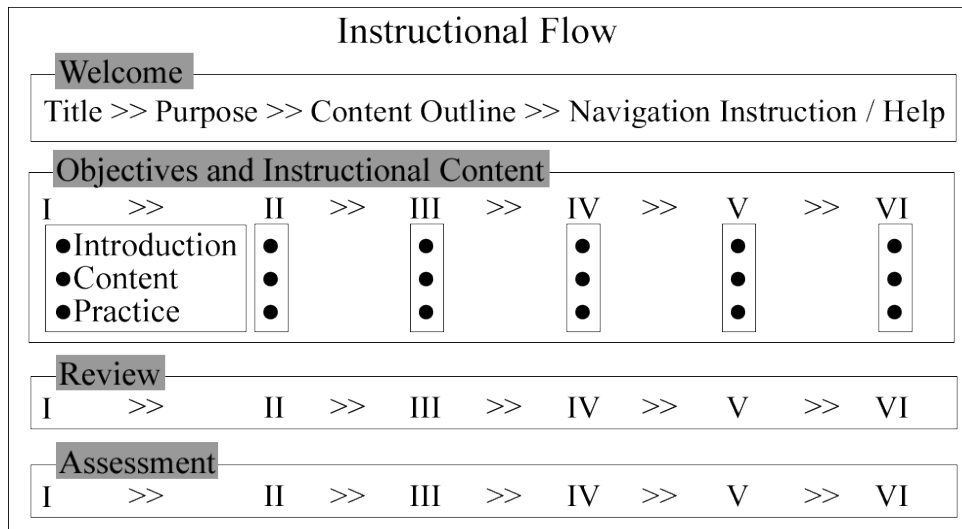
This instructional module uses the metaphor of a walk around the lake with a child. There will be a map with station points with relevant information about that station. The program will make use of pictures of the park, videos and animation to engage and inform both adults and children.

Content Outline

	Section	Description
I.	Introduction	<ul style="list-style-type: none">• Welcome• Introduction and purpose• How this Module Works
II	History	<ul style="list-style-type: none">• Beginning - ownership and use• Dedication markers• City Maintenance• Natural vs man-made
III	Orientation	<ul style="list-style-type: none">• Park rules• Hours• Location of parking• Location of activities<ul style="list-style-type: none">• Picnic• Swings• Skateboard ramp• Boats• Trails<ul style="list-style-type: none">• Map• Markers• Picnic shelters• Benches and bridges• Walking• Biking• Fishing<ul style="list-style-type: none">• Permits• Keep the fish• Bathrooms
IV	Safety	<ul style="list-style-type: none">• Water's edge• Boats• Trails<ul style="list-style-type: none">• cars, bikes and other users• uneven pavement and roots

		<ul style="list-style-type: none"> • Poison ivy • Animals <ul style="list-style-type: none"> • snakes • alligators • bees • spiders • dogs
V	Identify flora	<ul style="list-style-type: none"> • Southern Magnolia (leaves, cones, bark) • Pine Species (leaves, cones, bark) <ul style="list-style-type: none"> • Longleaf • Loblolly Bald Cypress (knees) Spanish moss • Habitat • Food chain
VI	Identify fauna	<ul style="list-style-type: none"> • Birds <ul style="list-style-type: none"> • Gulls • Waterfowl • Alligators • Turtles • Habitat • Food chain
VII	Greenfield Lake Habitat	<ul style="list-style-type: none"> • “Green stuff” • How does green stuff grow? • Litter • Habitat zones • Native flora and fauna connection

Instructional Flow



Welcome screens:

The learner will be welcomed to the Greenfield Lake site through the title slide. The next few slides will state the purpose of the module, a basic content outline and provide module navigational instruction.

Objectives and Instructional Content

Each of the six instructional units will be presented with an introduction slide informing the learner of the objectives and basic content to be covered. The screens will display pictures which correspond to the presented textual information in order to maintain the user’s attention and to improve learning. Each slide will be developed using the CRAP principle (Contrast, Repetition, Alignment and Proximity) and will be consistent in layout, screen design and navigation.

Practice Activities

Each unit will contain practice activities to allow the learner to apply the information presented in the current unit. The activities will mimic the assessment items found at the end of the module, however will not be in the format of a test question. Rather they will include fun drop/drag or matching activities.

Review and Assessment

Each unit will end in a one slide review of the presented information.

The assessment items will be presented upon the conclusion of the last unit in order to measure the learning that occurred with the user.

Task List

<http://student.uncw.edu/ns15074/513courseproject-chart.html>

Project Team

Lucas Gillispe- Instuctional Designer, Creative Director,Author (Materials Developer)
Newman Lanier- Instuctional Designer,Interactive Media specialist,Author (Materials Developer)
Fran Strauss - Instuctional Designer, Editor, Project Manager, Author (Materials Developer)
Joe Abatte - SME, Implementation representative
Doug Springer - Sponsor

Budget

Project Personnel	Hours	\$ / hour	Costs
Project Manager	70	\$23.00	\$1,610.00
Instructional Designer	70	\$25.00	\$1,750.00
Multimedia Developer	20	\$20.00	\$400.00
Author (Materials Developer)	20	\$30.00	\$600.00
Interactive Animations Developer	20	\$40.00	\$800.00
SME	15	\$40.00	\$600.00
Photographer	5	\$20.00	\$100.00
Total	220		\$5,860.00
Delivery / site hosting			Included in the current hosting for http://www.cfrw.us
Awareness Materials (signage, flyers)			\$100
Small group incentives – Nature Tour gift certificate	15 units	\$15	\$225
Total			\$6185.00

All budgeted items will be asborbed into the routine CFRW budget or donated.

Objective #1 – Park History

Image:



Narrative:

Did you ever wonder how Greenfield Lake began?

In this section on history, we will introduce you to some interesting historical facts about Greenfield Lake.

After this section, you will be able to identify true statements about the park's history.

Objective # 1

Animations: no

Screen # 1.1

Image files: lake.png

Notes:

Image:



Narrative:

Greenfield Lake's original owner was Dr. Samuel Green.

Dr. Green was a surgeon and general physician. He passed away in 1771, leaving the property to his wife.

He formed the lake by constructing a damn on a creek which fed off the Cape Fear River.

Dr. Green operated a rice plantation on the property and used the water for his crops and to power a grist mill, similar to this one found in Virginia.

What's a grist mill?

A grist mill is where the grain is ground into flour.

Objective # 1

Animations: no

Screen # 1.2

Image files: [grist_mill.png](#)

Notes:


<p>Image:</p> 	<p>Narrative:</p> <p>In 1918 Howard & Wells Amusement Company leased the park and changed the name to Lakeside Park. Many attractions were added to the property during this time including:</p> <ul style="list-style-type: none"> • Boardwalks • Bathhouses • Diving boards • Piers • A small zoo <p>Did you know that during this time the lake was so clear you could see to the bottom?</p>
<p>Objective # 1</p>	<p>Animations: no</p>
<p>Screen # 1.3</p>	<p>Image files: old_swim.png</p>
<p>Notes:</p>	

Image:



Narrative:

The Lakeside Park Pavilion was the setting for a marathon dance contest beginning at 8 PM on May 2, 1923.

By May 5th at 9 PM only one couple was left standing and by 11 PM, that same night, a single winner was announced.

Mr. J.P. Lewis danced for 75 hours, which at the time, was a world record.

For his efforts he was awarded \$170.

Objective # 1

Animations: no

Screen # 1.4

Image files: history_pavilion.png

Notes:


<p>Image:</p> 	<p>Narrative:</p> <p>The City of Wilmington bought the property for \$25,000 in 1925.</p> <p>Dr. Houston Moore and City Commissioner of Public Works, James E.L. Wade, fought hard for the city's purchase of the property.</p>
<p>Objective # 1</p>	<p>Animations: no</p>
<p>Screen # 1.5</p>	<p>Image files: park.png</p>
<p>Notes:</p>	

Image:



Narrative:

Commissioner Wade took a strong interest in the property and was responsible for having many flowering shrubs planted including azaleas and dogwoods.

Objective # 1

Animations: no

Screen # 1.6

Image files: park2.png

Notes:


<p>Image:</p> 	<p>Narrative:</p> <p>The Great Depression of 1929 left many area workers hungry and without jobs.</p> <p>Residents lucky enough to have jobs donated one days pay a month for over 18 months to share with those without jobs.</p> <p>The \$110,000 raised was used to hire men to build a road, called Community Drive, around Greenfield Lake.</p> <p>Community Drive was later changed to Lake Shore Drive.</p>
<p>Objective # 1</p>	<p>Animations: no</p>
<p>Screen # 1.7</p>	<p>Image files: wpa.png</p>
<p>Notes:</p>	

Image:



Narrative:

By the 1940's the flowering shrubs planted by Commissioner Wade had grown, attracting many visitors to the lake each spring.

The Azalea Festival was established in 1948 to celebrate the beauty of the many parks in the Wilmington area.

Objective # 1

Animations: no

Screen # 1.8

Image files: flowers.png

Notes:

<p>Image:</p> <p>Drag and drop</p>	<p>Narrative:</p> <p style="text-align: center;">Practice Activity</p> <p>Match the picture with the individual name or era by dragging and dropping the picture over the correct name.</p> <table border="0" style="width: 100%;"> <tr> <td>Pic of mill house</td> <td>Dr. Samuel Green</td> </tr> <tr> <td>Pic of pavilion</td> <td>Howard & Wells Amusement Company</td> </tr> <tr> <td>Pic of flowers</td> <td>Commissioner Wade</td> </tr> <tr> <td>Pic of road</td> <td>Depression era</td> </tr> </table>	Pic of mill house	Dr. Samuel Green	Pic of pavilion	Howard & Wells Amusement Company	Pic of flowers	Commissioner Wade	Pic of road	Depression era
Pic of mill house	Dr. Samuel Green								
Pic of pavilion	Howard & Wells Amusement Company								
Pic of flowers	Commissioner Wade								
Pic of road	Depression era								
<p>Objective # 1</p>	<p>Animations: yes</p>								
<p>Screen # 1.9</p>	<p>Image files:</p>								
<p>Notes:</p>									

Image:



Narrative:

Let's Review!

- Greenfield Lake started when Dr. Samuel Green built a dam across a creek which fed off the Cape Fear River.
- In 1918 the Howard & Wells Amusement Company leased the property building boardwalks, bathhouses, diving boards and even a small zoo.
- A world record dance contest was held at Greenfield Lake (then Lakeside Park) in May 1923.
- The City of Wilmington purchased the property in 1925.
- During the Depression, a five mile road was built around the lake.
- Greenfield Lake was the inspiration for Wilmington's Azalea Festival, first established in 1948.

Objective # 1

Animations: no

Screen # 1.10

Image files: arch_sign.png

Notes:

<p>Image:</p> <p>Place a check in the box next to the false statement regarding Greenfield Lake. Then click the “Check Answer” box to see if you’re correct.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Greenfield Lake was started by Dr. Samuel Green. <input type="checkbox"/> Beginning in 1918, residents could enjoy the boardwalk, bathhouses, diving boards and other features at Greenfield Lake. <input type="checkbox"/> A dance contest was held at the park in the 1920’s, but no records were set. <input type="checkbox"/> It was during the Depression that a five mile road was constructed around the lake. <input type="checkbox"/> Greenfield Lake is owned by the City of Wilmington and was the inspiration for the Azalea Festival. 	<p>Narrative:</p> <p style="text-align: center;">Now, let’s see what you have learned.</p> <p style="text-align: center;">Place a check in the box next to the false statement regarding Greenfield Lake.</p> <p style="text-align: center;">Then click the “Check Answer” box to see if you’re correct.</p>
Objective # 1	Animations: yes
Screen # 1.11	Image files:
Notes:	

Objective #2 – Park Orientation

Image:



Narrative:

Where can you park?
What can you do?
How long is the trail?

These are but a few of the questions we will answer in this section as we orient you to Greenfield Lake.

After this section, you will be able to identify the location and that can be included in a day's visit to the park.

Objective # 2

Animations: no

Screen # 2.0

Image files: park_sign2.png

Notes:

Image:



Narrative:

Parking lots are located throughout the lake area.
Please only park in designated areas and not in the grass.

Objective # 2

Animations: no

Screen # 2.1

Image files: parking.png

Notes:

Image:



Narrative:

Paddleboats, canoes and kayaks are available for rent in the Boathouse.

In addition, you can bring your own canoe and access the lake using the boat ramp located just off Carolina Beach Road.

Gas or electric powered boats are allowed, up to 3.5 horse power.

Objective # 2

Animations: no

Screen # 2.2

Image files: boat_ramp.png

Notes:

Image:



Narrative:

The main arrival area is located in the northeast corner of the lake and contains many popular attractions including:

- Picnic shelters
- Snack house
- Playground
- Skateboard park
- Fishing pier
- Tennis courts
- Restrooms

Picnic shelters reservations can be made through the City of Wilmington Parks Reservation Center

Objective # 2

Animations: no

Screen # 2.3

Image files: north3.png

Notes:

Image:



Narrative:

A walk or bike trail surrounds the entire lake.

Bring your good walking shoes; it's 4.5 miles in length!

Neither motorized vehicles nor skateboards are allowed on the trail.

Objective # 2

Animations: no

Screen # 2.4

Image files: north.png

Notes:

Image:



Narrative:

You are welcome to bring the family dog with you during your visit to Greenfield Lake.

Please make sure he/she is on a leash and you clean up after your pet, using the designated receptacles.

Objective # 2

Animations: no

Screen # 2.5

Image files: dog.png

Notes:

Image:



Narrative:

The amphitheatre is located on the south side of the Lake Shore Drive.

Events are held throughout the spring, summer and fall.

Objective # 2

Animations: no

Screen # 2.6

Image files: ampi.png

Notes:

Image:



Narrative:

Fishing is allowed from the boardwalk area, fishing pier or from a boat.

Long nose gar, small and large bass and blue gill are among the fish population in Greenfield Lake.

A fishing permit is required by the State of NC.

Objective # 2

Animations: no

Screen # 2.7

Image files: pier.png

Notes:

Image:



Narrative:

Let's see what you have learned!

Click on each icon below to reveal the location of key areas within Greenfield Lake.

Icons will be listed below

Objective # 2

Animations: yes

Screen # 2.8

Image files: map.png

Notes:

Image:



Narrative:

For Review

These activities can be enjoyed during a visit to Greenfield Lake:

- Walking
- Biking
- Paddleboat and canoe rentals
- Fishing
- Enjoying a play
- Skateboarding
- Tennis
- Picnics

Objective # 2

Animations: no

Screen # 2.9

Image files: north2.png

Notes:

<p>Image:</p> <p>Multiple choice with feedback.</p>	<p>Narrative:</p> <p>Now let's see what you have learned!</p> <p>Place a check next to the activities you and your family can participate in while visiting Greenfield Lake.</p> <ul style="list-style-type: none"><input type="checkbox"/> Biking<input type="checkbox"/> Swimming<input type="checkbox"/> Picnics<input type="checkbox"/> Swings<input type="checkbox"/> Fishing<input type="checkbox"/> Enjoying a play<input type="checkbox"/> Motorbiking<input type="checkbox"/> Paddleboating<input type="checkbox"/> Walking
<p>Objective # 2</p>	<p>Animations: yes</p>
<p>Screen # 2.10</p>	<p>Image files:</p>
<p>Notes:</p>	

Objective #3 – Park Safety

Image:Children playing at GPL	<p>Narrative: Greenfield Lake Park is beautiful place, but you must remember to be safe!</p> <p>While it's NOT a dangereous place, you must use caution to avoid accidents that could spoil your fun day at the park.</p> <p>During this lesson you learn some safety tips that will help make the day more enjoyable and particularly about:</p> <ul style="list-style-type: none">● trail ettiette● boating safety● animals
Objective and title: 3.1 - Introduction	<p>Animation: Notes: This introduction slide will include the statement of objective for the Safety section.</p>
Image:Bikers and walkers on the trail	<p>Narrative: On the trail Watch for uneven pavement. Always be careful of where you are walking.</p>
Objective and title: 3.2 - Trails - uneven pavement	<p>Animation: Notes: Gah! What safety problems are there when you are walkin on a trail</p>
Image:Field with lake bank	<p>Narrative: There are many place off of the trail to walk and run and play.</p>

	<p>Remember to be careful of roots and holes.</p> <p>Also, the edge of the water can be muddy and slippery - Don't fall in!</p>
Objective and title: 3.3 off trail	<p>Animation:</p> <p>Notes:</p>

Image: Bikers and walkers on the trail	<p>Narrative:</p> <p>Trail etiquette isn't just to be nice. It's mostly to be safe.</p> <p>Here are three important rules:</p> <p>Bikers - Keep your speed slow and watch for children and pets.</p> <p>Walkers and Runners - stay on the righthand side of the trail.</p> <p>Everyone - Always be cautious of your surrounds and don't play music in your headphone so loud you can't hear traffic or a friendly "On your left!"</p>
Objective and title: 3.4 cars, bikes and other users	<p>Animation:</p> <p>Notes:</p>

Image:Paddle Boats at the dock	<p>Boating is one of the most fun activities at the lake. You can really see and explore all the lake from a boat!</p> <p>The paddle boats are very stable and safe - you must remember some import safety concerns.</p> <p>Before you get on the water, Always walk on the dock. It's easy to trip on the wooden boards and could cause an unexpected swim.</p>
Objective and title: 3.5 At the Dock	<p>Animation:</p> <p>Notes:</p>

Image: paddle boats on the water	<p>Narrative:</p> <p>There are several boat ramps at greenfield lake. But remember, no gas motors - electric and non motorized only.</p> <p>The Paddle boats offered for rent are a great way to explore the lake. And safe, if you remember these tips: Always wear a life vest Never stand or walk in the boat Don't try to exit the boat anywhere but the dock</p>
Objective and title: 3.6 on the open water	<p>Animation:</p> <p>Notes:</p>

Image: Animals and plants	<p>Narrative:</p> <p>The plants and animals at GLP are there for you to enjoy. But you must respect them and allow them plenty of space.</p> <p>Rollover these animals to see a tip for each.</p> <ul style="list-style-type: none"> snakes alligators bees spiders dogs Poison ivy Pine cones
Objective and title: 3.7 - Animals and plants	<p>Animation: Rollover to see a tip for each</p> <p>Notes:</p>

Image: Practice Animation	<p>Narrative:</p> <p>You can see two areas marked "safe and "unsafe". Drag the pictures of activities to the category they belong.</p>
Objective and title: 3.8 - Practice	<p>Animation: Drag and Drop practice</p> <p>Notes: Need 4 picture of safe and unsafe activities and feed back for each.</p>

Image: Happy safe people	Narrative: Here is a good tip sheet for being safe at GLP.
Objective and title: 3.9 - Review	Animation:

Image: Happy safe people	Narrative: Directions: Click and watch each of the short videos below. Using your mouse, check the video that shows the safest boating behavior.
Objective and title: 3.10 - Assessment	Animation: Multiple choice interaction with two video clips

Objective #4 – Park Trees

Image:	Narrative: Greenfield Lake Park is home to a variety of Southern Trees. In this section, we'll introduce you to four of the trees commonly encountered while hiking the trail about the lake. After this section, you'll be able to identify them as you explore the natural areas at Greenfield Lake Park
Objective # / Screen # 4.1	Animations:
Introduction to Trees at GLP	Image files:
Notes:	

Image:	Narrative: The Southern Magnolia is a broad-leafed tree found at Greenfield Lake Park. The leaves are oval-shaped, shiny on top and have a fine reddish hair on the underside. During the spring, the trees feature beautiful, white flowers that measure six to eight inches in diameter and have a wonderful fragrance.
Objective # / Screen # 4.2	Animations:
The Southern Magnolia	Image files:
Notes:	

Image:	<p>Narrative:</p> <p>The bald cypress is non-evergreen tree growing in the edge of the lake and in shallower portions of Greenfield Lake. The bark of this tree has numerous ridges and the trunk spreads out wide at the base. One of the most unique features of the bald cypress are the unusual root growths called "cypress knees" that grow up from the ground and even emerge above the water for those growing in wet areas.</p>
Objective # / Screen # 4.3	Animations:
The Bald Cypress	Image files:
Notes:	

Image:	Narrative: The loblolly pine is one of two common pine species found at Greenfield Lake Park. The loblolly pine has needles that come in clusters of three and are typically between six and nine inches long. The cones have small spikes on them that would hurt if you were to squeeze them.
Objective # / Screen # 4.4	Animations:
The Loblolly Pine	Image files:
Notes:	

Image:	Narrative: The longleaf pine is another common pine species found in the park. The needles of a longleaf pine also come in clusters of three but are typically eleven inches or more in length. The cones of the longleaf pine are very large as well, measuring from six to ten inches in length.
Objective # / Screen # 4.5	Animations:
The Longleaf Pine	Image files:
Notes:	

Image:	Narrative: <ul style="list-style-type: none"> • Southern Magnolia: Broad leaves, shiny on top. Large, white, fragrant flowers in spring. • Bald Cypress: Ridged bark with a broad trunk at the base. Cypress "knees." • Loblolly Pines: Three needles in a cluster, six to nine inches. Spikes on cones. • Longleaf Pines: Needles usually longer than eleven inches. Very large cones.
	Animations:
Objective # / Screen # 4.6	Image files:
Review The Key Characteristics of the Four Trees	
Notes:	

Image:	Narrative: Directions: Match the name of the tree with its picture by dragging and dropping the name over the correct image, and then click the "Check Answer" button.
Objective # / Screen # 4.7	Animations:
Can You Match The Trees' Names with their Pictures?	Image files:
Notes:	

Objective #5 – Park Birds

Image:	Narrative: Many coastal birds visit Greenfield Lake Park each year. Some visit in the spring, others in the fall. Some call Greenfield Lake home. In this section, you'll be introduced to four common coastal birds encountered while exploring the park. Upon completion, you'll be able to identify them by sight.
Objective # / Screen # 5.1	Animations:
Introduction to Birds at GLP	Image files:
Notes:	

Image:	Narrative: <p>The mallard is a type of duck seen at in the park primarily in the winter months. The male mallard is easily identified by his shiny green head and reddish chest feathers. Mallards are fairly large ducks with a yellowish bill.</p>
Objective # / Screen # 5.2	Animations:
The Mallard	Image files:
Notes:	

Image:	Narrative: <p>Canada geese are commonly seen in winter months in the waters and along the banks of Greenfield Lake. The Canada goose is a large tan-brown goose with black feathers on the neck and head. They also have a unique white patch of feathers on their chins.</p>
Objective # / Screen # 5.3	Animations:
The Canada Goose	Image files:
Notes:	

Image:	Narrative: <p>Herring gulls are year-round residents of Greenfield Lake. The herring gull has gray-colored feathers on its back with black wing tips. The feathers on their head are white and their feet are flesh-colored.</p>
Objective # / Screen # 5.4	Animations:
The Herring Gull	Image files:
Notes:	

Image:	Narrative: The laughing gull is a summer visitor to Greenfield Lake Park. These gulls have dark feathers on their backs, white feathers around their neck, and a black head. Their bills of the adults are bright orange. One of the most interesting features of this gull is its laughing call.
Objective # / Screen # 5.5	Animations:
The Laughing Gull	Image files:
Notes:	

Image:	Narrative: <ul style="list-style-type: none"> ● The Mallard: Duck with a green head, reddish chest, and a yellow bill. ● The Canada Goose: large tan/brown goose with black neck and head and white patch on neck. ● The Herring Gull: Gull with gray feathers on back, black wing tips, white head. ● The Laughing Gull: Gull with black head, white neck, and orange bill.
Objective # / Screen # 5.6	Animations:
Review The Key Characteristics of the Four Birds	Image files:
Notes:	

Image:	Narrative: <i>Directions: Below are four pictures of birds found at Greenfield Lake Park. Click on the circle beside the picture of Canada Geese. Then, click "Check Answer" to see if you're correct.</i>
Objective # / Screen # 5.7	Animations:
Can You Identify The Birds?	Image files:
Notes:	

Objective #6 Park Environment

<p>Image: Circle of Life - Happy eco scene</p>	<p>Narrative:</p> <p>Greenfield lake is an environmental education center. There is so much to explore and learn. Hopefully, you will be able to identify some of the concerns and teach them to your children, after viewing this website.</p>
<p>Objective and title: 6.1 - Environmental Introduction</p>	<p>Animation:</p>

Image: Circle of Life - Happy eco scene

Narrative:

Pollution is the consequence of a wasteful and short-sighted society. Once products and belongings hold no value to use, by in large we discard them without seeing or understanding the long term effects they have in our environment.

One easy to see source of pollution at GLP is litter, which ends up on the banks of the lake or along the trails. Another not so easy to see, is the pollution that is carried to the lake in rain water run off. But we can see what it causes - the green algae.

Objective and title: **6.2 Pollution**

Animation:

Image: Litter on the bank and near the trash can

Narrative:

We can stop litter. It's easy as throwing away trash in the proper place and keeping an eye open for where your soda cans or newspapers go after you finish using them.

Some litter is just an eyesore. But others, like plastic bags, can harm the wildlife around the lake. For instance, fish can become tangled in plastics and turtles can die from eating some pices of litter.

Objective and title: **6.3 litter**

Animation:

<p>Image: Yucky green algae</p>	<p>Narrative:</p> <p>Greenfield lake DOES NOT get it's name from the green algae that covers the lake in the summer.</p> <p>As a matter of fact, people used to swim in the lake. But now, we can't swim in the lake because of the poor water quality.</p> <p>The algae grows out of control when the conditions are right. Algae need food and sunlight. In summer there is plenty of sun. And the food that algae needs is plentiful as well - it comes mostly from the fertilizer used in the lawns in the lakes watershed. A watershed is the area that runs water into the lake.</p> <p>When the conditions are right, the algae will come. And when it comes the water is not very good for fish and other inhabitants. The algae, a plant, uses up dissolved oxygen which can lead to fish kills.</p> <p>The city has try to help educate home owners to use fertilizers responsibly and has installed the 'aireators' to increase the oxygen in the water for fish.</p>
<p>Objective and title: 6.4 The green algae</p>	<p>Animation:</p>

Image: Yucky green algae

Narrative:

Here is a graphic of the greenfield lake watershed. Whenever rain falls on the shaded area, the water runs toward the lake. This carries good and bad nutrients to the lake

Objective and title: **6.5 Practice**

Animation: Yes - something to practice the ideas of litter is unsightly and harmful to animals and - the ideas of watershed and the balance of sunlight and nutrients to cause algae blooms.

<p>Image: Water with ducks</p>	<p>Narrative:</p> <p>A special place for special species - Wilmington's Greenfield lake is home to some very special species and that makes Greenfield a special place. Imagine a city with a cypress swamp in the middle of it - That's Wilmington!</p>
<p>Objective and title: 6.6 Habitat</p>	<p>Animation: no</p>

Image: Water with ducks

Narrative:

Native plants = native animal species - Plants and animals live in harmony. They are part of a food chain, are part of each others cycle of life and death. Plants provide habitat and food for animals. Animals spread seeds and fertilize (become food) for plants. Without native plants native animals can suffer and vise versa

The Food chain around the lake- The plants and animals of GLP are part of web of life or food chain.

This lake is unique in so many ways and it's right in your backyard!

Objective and title: **6.7 Habitat part 2**

Animation: no

<p>Image: Habitat graphic</p>	<p>Narrative:</p> <p>Here is a graphic of the greenfield Habitat. Can you drag the plants and animals to their proper place on the food chain?</p>
<p>Objective and title: 6.8 Practice</p>	<p>Animation: Yes -Simple drag drop of plant and animal graphic onto their place in the food chain.</p>

<p>Image: The park with people</p>	<p>Narrative:</p> <p>Here is a graphic of the greenfield lake watershed. Whenever rain falls on the shaded area, the water runs toward the lake. This carries good and bad nutrients to the lake</p>
<p>Objective and title: 6.9 Review</p>	<p>Animation: Yes - something to practice the ideas of litter is unsightly and harmful to animals and - the ideas of watershed and the balance of sunlight and nutrients to cause algae blooms.</p>

Image: Yucky green algae

Narrative:

Identify the correct responses for the question below by using your mouse to place a check in the box(s) containing the correct answers.

Place a check next to the items below that contribute to the growth of algae in Greenfield Lake.

- Fertilizer
- Animal waste
- Diesel fuel
- Fish

Objective and title: **6.10 Assessment**

Animation: Yes - multiple choice learning interaction with good feedback.