



Dear Educator,

Thank you for your interest in visiting the New Canal Lighthouse Museum & Education Center. I hope you will find the attached information beneficial in planning your field trip. Included are the following materials:

- Planning your visit: Group Prices and Site information
- Special programs offered
- Science/Social Studies GLE's addressed
- A brief history of the New Canal Lighthouse
- Pretest /Posttest
- Field Trip Form
- Letter for parents

I hope you and your students enjoy your visit to the New Canal Lighthouse Museum & Education Center. If you have any questions or suggestions, please feel free to contact me at 504-836-2216 or email joannh@saveourlake.org.

Sincerely,

Joann Haydel
Education Coordinator
Lake Pontchartrain Basin Foundation
8001 Lakeshore Dr.
New Orleans, LA 70124
504-836-2238

Group Prices for LPBF's New Canal Lighthouse Museum Tour:

Students 6-12 years old:	\$4.00
Students/Guests 13 or older:	\$6.00(group rate for 10 or more)
Chaperones (1 per 10 students):	free
Each additional adult:	\$6.00(group rate)

Planning Your Visit:

To plan your visit to LPBF's New Canal Lighthouse and Museum, we request that you call ahead or email us to make a reservation two weeks in advance. Reservations may be made by contacting our Education Department by phone 504-836-2216, Monday – Friday, 10:00AM – 4:00PM, or by email at joannah@saveourlake.org. The minimum size for a group is 10 and the largest group size that we can accommodate is approximately 100. We do have a gift shop on site, and all money spent goes toward LPBF operations and programs for the lake and coast.

Museum Rules:

- No food, candy, beverages, or gum is allowed in the museum.
- Please use indoor voices and respect the other visitors on the site.
- Please do not touch objects in the museum unless otherwise instructed.
- Buses may drop students off at the gate, but they must park across the street.

Our Mission at LPBF:

Our mission is to restore and preserve the Pontchartrain Basin for the benefit of this and future generations.

Special Programs for School Groups:

*****Your visit will include a tour of our museum and one or more of our education programs listed below. Please note that each program requires about 20 minutes. Also, students can bring a picnic lunch to enjoy under the lighthouse or on the lighthouse lawn depending on the time of your visit.**

Guided Tour of the Museum (All grades)

The tour of the museum begins on our west deck where groups will learn about Lake Pontchartrain and the New Basin Canal. They will also view our bell tower and have a chance to ring our bell (circa 1958). As they ascend the stairs, students will have a beautiful view of the lake, the Causeway bridge, and the seawall. As they enter the lighthouse museum, the students will move through 3 halls: The History Hall, The Save Our Lake Hall, and The Save Our Coast Hall. Groups will learn about the rich history of our lighthouse and lakefront area. Then, they will learn about how LPBF helped to save our Lake Pontchartrain. Finally, they will learn about the struggle to save our coast.

A Day in the Life of a Keeper (K-5th) – Program author Mindy Mayer

This is a role play activity where the students can learn about a typical day in the life of a light keeper. The students will receive a prop and discuss duties of a light keeper. They will also reenact a rescue by one of our 5 women keepers of the light. Finally, the students will be asked to sign the New Canal Lighthouse log since all keepers recorded the names of all visitors to the lighthouse.

Five Lives in the Light (5th-8th)

(This activity is designed for girls in middle school)**

The students will perform a play about the 5 women keepers of the light and learn about the role of women as light keepers. Our five women light keepers tended the New Canal Lighthouse for 85 years, from 1847 to 1932.

Story of the Lake (K-5th)

The students will participate in a story about how our lake became very polluted and then became clean again thanks to LPBF and thousands of volunteers!! They will also learn some cheers and sing some songs about our Lake Pontchartrain watershed.

Watershed Model/Water Quality (5th – 12th)

The students will create a model of our watershed and learn about how pollutants enter the lake through activities on land. The students will also learn how to test water quality by collecting samples from the lake and testing the following water quality parameters: temperature, pH, dissolved oxygen, turbidity, and salinity.

School of Marsh (5th-12th)

LPBF has created an urban marsh at the mouth of Bayou St. John where students can walk onto the marsh, test water quality, and sample macroinvertebrate populations. Students can identify native plant species and see what wildlife they can find.

Service Learning Day at Bayou St. John (6th-12th)

The students will participate in a service learning project by cleaning up litter at the urban marsh in Bayou St. John. Your students can meet at the New Canal Lighthouse to learn about the project, and then travel to the marsh about a mile away. There, students will be given data

cards and trash bags to do a litter clean up. They will also learn about the bayou and its importance to the city of New Orleans. After, students will travel back to the lighthouse to discuss and debrief. Data cards will be turned in, and the data will be shared with the New Orleans Sewerage & Water Board to be used as needed.

Save Our Coast (all grades)

The students will learn about our Multiple Lines of Defense Program against hurricanes and storms and create a bead bracelet to represent each line of defense.

What are Wetlands: What 3 things make up a wetland, how many wetland types do we have and how do they function? In a hands-on activity, the students will see what wetlands look like and how they work to protect our region.

*****Education programs not including lighthouse museum tour available at no cost.**

*****Please visit our website – www.saveourlake.org – for more information on programs.**

Science GLE’s Addressed

PreK - K	SI-E-A1 Ask questions about objects and events in the environment SI-E-A2 Pose questions that can be answered by using students’ own observations and scientific knowledge
1 st grade	SI-E-A1 Ask questions about objects and events in the environment SI-E-A2 Pose questions that can be answered by using students’ own observations and scientific knowledge LS-E-C1 Describe features of some animals that benefit them in their environments.
2 nd grade	SI-E-A1 Ask questions about objects and events in the environment SI-E-A2 Pose questions that can be answered by using students’ own observations and scientific knowledge LS-E-A4 Identify physical characteristics of organisms. SE-E-A3 Describe a variety of activities related to preserving the environment.
3 rd grade	SI-E-A1 Ask questions about objects and events in the environment SI-E-A2 Pose questions that can be answered by using students’ own observations and scientific knowledge SE-E-A3,SE-E-A5 Describe how humans have had negative and positive effects on organisms and their environments
4 th grade	SI-E-A1 Ask questions about objects and events in the environment SI-E-A2 Pose questions that can be answered by using students’ own observations and scientific knowledge LS-E-A3 Describe how parts of animals bodies are related to their functions and survival LS-E-C2 Describe how some plants and animals have adapted to their environments. LS-E-C2 Identify the habitat in which selected organisms would most likely live and explain how specific structures help organisms to survive
5 th grade-8 th grades	SI-M-A1 Generate testable questions about objects, organisms, and events that can be answered through scientific investigation SI-M-A3 Select and use appropriate equipment, technology, tools, and metric system units of measurement to make observations

	<p>SI-M-A3 Use consistency and precision in data collection, analysis, and reporting</p> <p>SI-M-A4 Use data and information gathered to develop an explanation of experimental results</p> <p>SI-M-A4 Identify patterns in data to explain natural events</p> <p>SI-M-A6 Recognize that there may be more than one way</p> <p>SI-M-A7 Use evidence and observations to explain and communicate the results of investigations</p> <p>SI-M-A8 Use relevant safety procedures and equipment to conduct scientific investigations</p> <p>SI-M-B3 Recognize that there is an acceptable range of variation in collected data</p> <p>SI-M-B5 Explain why an experiment must be verified through multiple investigations and yield consistent results before the findings are accepted</p> <p>LS-M-C2 Compare food chains and food webs.</p> <p>LS-M-C3 Identify and describe ecosystems of local importance</p> <p>LS-M-D1 Describe adaptations of plants and animals that enable them to thrive in local and other natural environments</p> <p>SE-M-A3 Identify and give examples of pollutants found in water, air, and soil</p> <p>SE-M-A4 Describe the consequences of several types of human activities on local ecosystems</p>
9 th - 12 th grades	<p>SI-H-A2 Conduct an investigation that includes multiple trials and record, organize, and display data appropriately</p> <p>SI-H-A3 Utilize mathematics, organizational tools, and graphing skills to solve problems</p> <p>SI-H-A3 Use technology when appropriate to enhance laboratory investigations and presentations of findings</p> <p>SI-H-A6 Write and defend a conclusion based on logical analysis of experimental data</p> <p>SI-H-B4 Analyze the conclusion from an investigation by using data to determine its validity</p> <p>LS-H-D4 Analyze positive and negative effects of human actions on ecosystems</p>
Environmental Science 11 th – 12 th grades	<p>SE-H-A5 Analyze the consequences of changes in selected divisions of the biosphere</p> <p>SE-H-A7 Explain how species in an ecosystem interact and link in a complex web</p> <p>SE-H-A9 Analyze the effect of an invasive species on the biodiversity within ecosystems</p> <p>SE-H-A11 Give examples and describe the effect of pollutants on selected populations</p> <p>SE-H-B6 Evaluate the factors that affect sustainable development</p> <p>SE-H-C1 Determine the interrelationships of clean water, land, and air to the success of organisms in a given population</p> <p>SE-H-C2 Relate environmental quality to quality of life</p> <p>SE-H-C3 Analyze the effect of common social, economic, technological, and political considerations on environmental policy</p> <p>SE-H-D2 Discuss how education and collaboration can affect the prevention and control of a selected pollutant</p> <p>SE-H-D4 Determine local actions that can affect the global environment</p> <p>SE-H-D5 Describe how accountability toward the environment affects sustainability</p>

Social Studies GLE's Addressed

Kindergarten	<p>K.2.1 Compare and contrast children and families of today with those in the past using various sources</p> <p>K.3.2 Identify maps and globes as a representation of the earth and recognize the difference between land and water</p>
1 st grade	<p>1.1.3 Compare and contrast lifestyles of the past to the present</p> <p>1.3.10 Predict ways human actions impact the environment</p>
2 nd grade	<p>2.1.7 Describe how early explorers and settlers, American Indian nations, and western migration influenced the development of the United States.</p> <p>2.2.4 Identify major geographical features in the local region, state, and country</p> <p>2.2.7 Compare and contrast basic land use and economic activities in urban, suburban, and rural environments</p> <p>2.2.8 Describe the vegetation, the animal life, and the cultural characteristics of the people specific to local regions and how they are interdependent</p> <p>2.2.9 Identify natural resources and cite ways people conserve, protect, and replenish them</p>
3 rd grade	<p>3.2.1 Explain how major explorers and leaders contributed to the early development of Louisiana</p> <p>3.2.3 Identify the causes and effects of migration on Louisiana</p> <p>3.4.1 Compare and contrast the physical features of various regions of Louisiana</p> <p>3.4.2 Explain historical patterns of settlement in Louisiana using maps.</p> <p>3.4.3 Describe how people have changed the land to meet their basic needs over time in Louisiana</p> <p>3.4.5 Describe how humans affect the environment in Louisiana.</p> <p>3.9.2 Investigate the responsibilities and characteristics of various jobs.</p>
4 th grade	<p>4.2.1 Explain how early explorations affected the expansion of boundaries and development in the United States.</p> <p>4.2.2 Cite evidence to support the key contributions and influence of people in the history of the United States</p> <p>4.5.2 Analyze how physical characteristics of a region shape its economic development</p> <p>4.5.3 Identify and explain how the physical characteristics of a region influenced human settlement</p>
5 th grade	<p>5.2.2 Identify early explorers and their motivations, challenges, and achievements</p>
6 th grade	<p>6.4.3 Explain the connection between physical geography and its influence on the development of civilization</p>
7 th grade	<p>7.7.1 Explain how Americans adapted and transformed various physical environments in the United States to expand its growth and influence</p>
8 th grade	<p>8.2.1 Describe the contributions of explorers and early settlement groups to</p>

	<p>the development of Louisiana</p> <p>8.2.2 Explain the importance of the Mississippi River as it relates to historical events throughout Louisiana’s history</p> <p>8.4.1 Analyze how physical features and natural resources of Louisiana affected the migration patterns of cultural groups</p> <p>8.5.1 Describe how natural phenomena impact the physical environment of Louisiana</p> <p>8.10.3 Describe historical factors influencing the economic growth, interdependence, and development of Louisiana</p>
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A Brief History of the New Canal Lighthouse

The New Basin Canal was built by the Americans after the Louisiana Purchase in 1803. The canal was built and followed the path of the present day I-10 all the way to the Superdome by Howard Avenue. The canal was not dug by slaves because during the 1830’s, slaves were hard to come by as we approached Civil War time. It was dug by Irish immigrants and some German immigrants. The Irish immigrants came to America by the thousands to escape the Irish Potato Famine. They worked for less than a dollar a day and dug the canal with shovels and wheel barrels. Eight to ten-thousand men died during the creation of the canal because of the mosquito infested swamps. A Celtic cross stands on West End Boulevard as a remembrance of the men who gave their lives while digging the canal. The canal was six miles long, six feet deep, sixty feet wide, and took six years to build. It was a great source of commerce for the city of New Orleans. The area across the New Basin Canal built up over water on boardwalks and was called New Lake End. It was greatly used for recreation and included bathhouses and an amusement park. At the mouth of the canal, a lighthouse was built to mark the channel.

The New Canal Lighthouse at the entrance to the New Basin Canal was built in 1839, and it was an octagonal cypress tower. Because it was just a wooden tower, it began to lean and sink. In 1855, the 2nd lighthouse was built. It was a 1-story square building with a Fresnel lens on top. Then, in 1880, the Southern Yacht Club built a beautiful building across the New Basin Canal. The yacht club blocked the light from the 1-story lighthouse, so a 3rd lighthouse was built up taller than the yacht club in order for the light to be seen. This 3rd lighthouse was built in 1890 and stood for over 100 years until Hurricane Katrina came and knocked it down. The Lake Pontchartrain Basin Foundation obtained the lease to rebuild the lighthouse and turn it into a museum and education center to teach about the lake and coast. LPBF dismantled the 1890 lighthouse in 2007 and stored the pieces in a warehouse. The 4th and current lighthouse was completed in the spring of 2013. It is a replica of the 1890 lighthouse and its light shines 9 miles into Lake Pontchartrain. It contains a museum open to the public.

Pretest/Posttest

- _____ are defined as bodies of water completely surrounded by land.
 - Oceans
 - Gulfs
 - Lakes
 - Rivers
- Lake Pontchartrain is a(n) _____ which means it connects to the gulf; an inland bay.
 - river
 - estuary
 - pool
 - bayou
- How was south Louisiana created?
 - changing tides of the Gulf of Mexico
 - changing deltas of the Mississippi River
 - changing patterns of the lake
 - a large earthquake
- Native Americans brought the French through Pass Manchac and into Lake Pontchartrain. From there, they came up _____ to get their goods to the river.
 - The London Canal
 - Bayou St. John
 - the New Basin Canal
 - the Gulf of Mexico
- The _____ was built by Americans in the 1830's.
 - Old Basin Canal
 - Mississippi River
 - New Basin Canal
 - Bayou St. John
- Who dug the New Basin Canal?
 - Slaves
 - French
 - Irish(and some Germans)
 - Americans
- The first New Canal lighthouse was built to mark the entrance to the New Basin Canal. What year was the first lighthouse built?
 - 1803
 - 1839
 - 1845
 - 1852
- How far does the current light in the lighthouse shine?
 - 2 miles
 - 4 miles
 - 9 miles
 - 15 miles
- How many women light keepers did the New Canal Lighthouse employ?
 - 2
 - 3
 - 4
 - 5

10. What material was being dredged from the lake in order to supply foundation materials for expansion of the city?
- a. crabs
 - b. clam shells
 - c. fish
 - d. oil
11. What year was the lake closed due to high pollution and high bacteria counts?
- a. 1960
 - b. 1970
 - c. 1980
 - d. 1990
12. What year did the Lake Pontchartrain Basin Foundation begin?
- a. 1985
 - b. 1987
 - c. 1989
 - d. 1991
13. How many recreational water sites around Lake Pontchartrain does LPBF test?
- a. 7
 - b. 8
 - c. 9
 - d. 10
14. What year did the Environmental Protection Agency and the Louisiana Department of Environmental Quality take Lake Pontchartrain off the impaired water bodies list?
- a. 2001
 - b. 2003
 - c. 2005
 - d. 2006
15. How much seafood does Louisiana supply throughout the continental United States?
- a. none
 - b. ~10%
 - c. ~20%
 - d. ~30%
16. What is a reason that we have experienced land loss?
- a. levees
 - b. nutria
 - c. logging
 - d. all of the above
17. Levees are good because they protect the area from flooding, but they also can be bad. Why?
- a. keep too much water on one side
 - b. keep rivers from naturally flooding and providing sediment
 - c. allow nutria to come in
 - d. cause too much land to grow
18. Which statement about nutria is false?
- a. brought here from Argentina
 - b. brought here for their meat
 - c. they are an invasive species
 - d. they can have 8-10 babies per litter
19. How many lines of defense are in the Multiple Lines of Defense strategy?
- a. 6
 - b. 8
 - c. 9
 - d. 11

20. The future of Louisiana is critical to the rest of the United States. True/False

Answer Key:

1. C

2. B

3. B

4. B

5. C

6. C

7. B

8. C

9. D

10.B

11.B

12.C

13.D

14.D

15.C

16.D

17.B

18.B

19.D

20.True



Field Trip Form

Name of Group: _____

Address: _____

Contact Person: _____

Phone Number: _____ Email: _____

of students: _____ Grade: _____

of chaperones: _____ (We recommend 1 per 10 students)

Date of visit: _____

Please indicate the choices for your visit (museum tour is included):

_____ A Day in the Life of a Keeper

_____ Five Lives in the Light

_____ Story of the Lake

_____ Watershed Model/Water Quality

_____ Bayou St. John/Water Quality

_____ Save Our Coast

**** Please email your form to joannah@saveourlake.org



The Lake Pontchartrain Basin Foundation (LPBF) is a non-profit, membership based organization that was established in 1989 in response to public outcry for the preservation and restoration of the Pontchartrain Basin's ecosystem.

As the public's independent voice, Lake Pontchartrain Basin Foundation (LPBF) is dedicated to restoring and preserving the water quality, coast, and habitats of the entire Lake Pontchartrain Basin. Through coordination of restoration activities, education, advocacy, monitoring of the regulatory process, applied scientific research, and citizen action, LPBF works in partnership with all segments of the community to reclaim the basin for this and future generations.

LPBF New Canal Lighthouse Museum, Education Center and Gift Shop

Our Lighthouse Museum and Education Center is an ideal place for students and families to learn about the history of Lake Pontchartrain and the Lakefront area as well as how we "saved our lake" and what is being done to "save our coast".

Our museum is open daily, Monday through Saturday, 10AM – 4PM.

Rates for admission with Education Programs:

Students 12 and up(group rate) - \$6.00

Children 6-12 years - \$4.00

1 chaperone/10 students free

Our Gift Shop has many treasures, and all money spent goes toward LPBF operations and programs for the lake and coast. Donations are greatly appreciated!