Haunted Waters Fragile Lands

What Tales to Tell

4-6 Video Guide

1st Edition Editors:

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National Estuary Program

This educator's guide to the Haunted Waters video is currently being revised and updated. Louisiana State Grade Level Expectations will be added and the new version will be posted on the BTNEP Education website at <u>http://educators.btnep.org/</u>.



About this guide



The video, *Haunted Waters Fragile Lands, Oh! What Tales to Tell* was an immediate success when it was first produced in 1997. The education subcommittee of the citizens' advisory committee of the Barataria-Terrebonne National Estuary Program initiated the effort to produce a teacher's guide to enhance the classroom use of the video.

The video is formatted into four distinct sections; 1) Introduction, 2) Frontlands and Backlands, 3) Trembling Prairies, and 4) Life from the Water - Death from the Sea. These are natural breaks in the video that allow the teacher to stop and pursue activities or questions about that particular section. The complete guide has a section for elementary teachers (K-3), middle school teachers (4-6), and secondary school teachers (7-12). Each of these sections is available individually or you can download the complete video guide as a PDF document. You may wish to use materials from other sections based upon the abilities of your students and your preference for content.

The guide consists of strategies that can be done *before viewing* (pre-viewing activities and questions) the video to set foundations, evoke prior knowledge, and focus the student's attention. Next, are *viewing strategies* to help students target specific information from the video. Finally, there are *post-viewing* activities and lessons. We have included a reference section and will be adding additional appendices in the updated version.

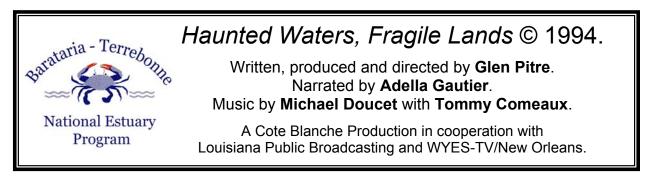
We are continually open to comments or feedback. Please write or e-mall your thoughts about this guide. Comments can be sent to

Barataria Terrebonne National Estuary Program Attn: Deborah Schultz P.O. Box 2663 Thibodaux LA 70310

Acknowledgments

The educator's guide to **Haunted Waters Fragile Lands, Oh! What Tales to Tell** is currently being updated and a new version will be posted on the BTNEP Education website during the 2004-2005 school year. Please check back at <u>http://educators.btnep.org</u>.

The original production of this video guide was the result of many months of work. Many teachers contributed to this project by authoring lessons, field testing lessons, and reviewing drafts. Special thanks to Jean May-Brett, Tammy Nelson, Jeanne Windham, Kay Baggett, Jennifer Baggett, Amy Ory, and Lisa Kuebel for their contributions. It was a joy to have teachers such as them share their professional knowledge in producing this guide. We wish to thank Lynn Schonherg and the Barataria-Terrebonne National Estuary Program for allowing us this opportunity. The original version was first printed in 1997.



Video Guide: Grades 4-6



Video Section: INTRODUCTION



A. PREVIEWING ACTIVITIES AND QUESTIONS FOR INTRODUCTION

- 1. How can the things we do have enormous consequences?
- 2. How was the Barataria-Terrebonne estuary system formed?
- 3. How are deltas formed?
- 4. List the contributions of the Haitians, Americans and Creoles in Louisiana.
- 5. What are the economic and aesthetic benefits of wetlands to humans?

Activities

1. Develop a geographical perspective of the BTNEP Basins.

Using state road maps or state topographical maps have students locate the boundaries of the BTNEP Basins and the parishes included within those boundaries.

The BTNEP Basins encompass an area of approximately 6400 square miles within the Mississippi deltaic plain and are essentially bordered by the Mississippi river to the east, East Atchafalaya Basin Protection Levee to the West, and the Gulf of Mexico to the south. The following parishes are part of these basins (some are only partially included). Pointe Coupee, West Baton Rouge, Iberville, Ascension, Assumption, Plaquemines, St. Mary, St. John, St. Martin, St. James, St. Charles, Orleans, Jefferson, Lafourche, and Terrebonne.

2. Determine the hydrographic features of the BTNEP Basins by locating major waterways and other bodies of water.

Some major waterways include: The Houma Navigation Canal, Gulf Intracoastal Waterway, Bayou Lafourche, Bayou Terrebonne, Bayou Black, Bayou Petite Caillou, Bayou Grand Caillou, Bayou du Large, Bayou Pointe au Chien, and Bayou des Allemands.

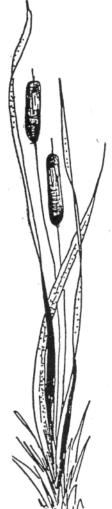
Some major bodies of water include: The Gulf of Mexico, Barataria Bay, Lake Salvador, Lac de Allemands, Little Lake, Timbalier Bay, Lake Raccourci, Lake Felicity, Lake Barre, Terrebonne Bay, Lake Pelto, Caillou Bay, and Fourleague Bay.

3. Explore the vocabulary of the title

"Haunted waters" can be presented to the students for them to derive a meaning of what "haunted" means (possible interpretations are: recurring thought, the presence of a specter, someone has been here before us, or unfinished business). Likewise, "tales to tell" can be used to explore the notions of oral history and the functions of tale telling.

4. Aquarium

Set a saltwater aquarium and put live crabs or shrimp in them to observe.



B. VIEWING STRATEGIES FOR INTRODUCTION

- Supply outline of major concepts of section. Students complete outline while viewing video.
- 2. List five things you would like to know more about.
- 3. Note-taking
- 4. Listing concepts

C. POST-VIEWING OUESTIONS AND ACTIVITIES FOR INTRODUCTION

Questions

- 1. What evidence do we have that Native Americans inhabited the Barataria-Terrebonne estuary system?
- 2. What was the influence of the Native Americans or contributions to settlers of this area?
- 3. What are Indian mounds?
- 4. In the early 1800's, what kind of wildlife could you find in this area?
- 5. How did Jean Lafitte use the Barataria area?

Activities

- 1. Construct Barataria-Terrebonne estuary system food chains, energy pyramids, and food webs.
- 2. Keep a crawfish in the classroom (in a small plastic pool with water and clay pots) so students can observe molting, movement, and other behaviors. Students can hold crawfish and use tweezers to feed the crayfish tuna fish (canned in spring water).
- 3. Place two crayfish in deep bucket with mud and small amount of water so students can observe crayfish tunnels being made.
- 4. Report on Jean Lafitte.



Video Section: FRONTLANDS AND BACKLANDS



A. PREVIEWING ACTIVITIES AND QUESTIONS FOR FRONTLANDS AND BACKLANDS

Questions

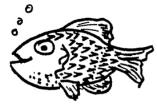
- 1. What are frontlands?
- 2. What are backlands?
- 3. How were frontlands used?
- 4. How were backlands used?

Activities

- 1. Cut open sugar cane.
- 2. Compile list of items made of cypress.
- 3. Bring in items made from cypress.

B. <u>VIEWING STRATEGIES FOR</u> <u>FRONTLANDS AND BACKLANDS</u>

- 1. Supply outline of major concepts of section. Students complete outline while viewing video.
- 2. Supply incomplete concept map and complete map during video.
- 3. List five things you would like to know more about.
- 4. Note-taking
- 5. Listing concepts.



C. POST-VIEWING QUESTIONS AND ACTIVITIES FOR FRONTLANDS AND BACKLANDS

Questions

- I. What were the effects of damming Bayou Lafourche, levees, and spillways?
- 2. How was cypress harvested?
- 3. What were the effects of cypress logging?
- 4. How do wetlands benefits animals?
- 5. Haitian Creoles brought with them a certain technology that is the basis for a large industry today. What industry and what technology?

Activities

- 1. Visit sugar processing plant in conjunction with a visit to a sugar plantation
- 2. Visit a crayfish farm.
- 3. Visit a seafood processing plant.
- 4. Compile a recipe book of class favorite seafood dishes.
- 5. Have a Cajun musician visit and perform for class or listen to Cajun music
- 6. Have students interview and record or video elderly people about the history of the area from their perspective.
- 7. Construct a history of the students' own home town.
- 8. Create a time capsule that contains artifacts of the present time.
- 9. Construct a concept map.



Video Section: TREMBLING PRAIRIES



A. PREVIEWING ACTIVITIES AND QUESTIONS FOR TREMBLING PRAIRIES

Questions

- 1. Think about the relationship of humans with their environment.
- 2. What new species were introduced into the Barataria-Terrebonne estuary system?
- 3. Why were new species introduced into the Barataria-Terrebonne estuary system?
- 4. What effects did introducing a new species into the Barataria-Terrebonne estuary system have?
- 5. What attitudes about wetlands are communicated in the video?
- 6. What is reclamation?

Activities

- 1. Bring in nutria pelts and compile a list of observations.
- 2. Invite local fur trapper as a guest speaker.

B. VIEWING STRATEGIES FOR TREMBLING PRAIRIES

- 1. Supply an outline of major concepts of this section. Have students complete the outline while viewing the video.
- 2. List five things you would like to know more about.
- 3. Note-taking
- 4. Listing concepts.



C. POST-VIEWING OUESTIONS AND ACTIVITIES FOR TREMBLING PRAIRIES

Questions

- 1. What is an eat-out?
- 2. What are the effects of reclamation on wildlife?
- 3. What effect has the alligator population bad on muskrats?
- 4. Why were nutria introduced into the Barataria-Terrebonne estuary system?
- 5. What new industry did the introduction of nutria into the Barataria-Terrebonne estuary system create?
- 6. What are some of the long lasting effects of nutria in the Barataria-Terrebonne estuary system?

Activities

- 1. Visit an alligator farm.
- 2. Bring in items made from alligator skins.
- 3. Research nutria.
- 4. Construct a concept map.

ACTIVITY: Spanish Moss

Background Information

Spanish moss, also known as graybeard, is a flowering plant in the pineapple family. This moss has threadlike stems with small greenish-blue leaves. It grows on tree limbs and can be as long as 20 feet. This plant is common in the southeastern part of the United States.

As mentioned in the video, many Louisiana products have been used commercially. The harvesting of some natural resources have aided the destruction of valuable marshlands. This activity will engage students in taking common Spanish moss and developing a product humans would use but would not be harmful to the environment.

Prior to doing this activity, students should understand basic concepts of marketing, consumer, supply/demand, etc

Materials (per group of students)

poster board	markers
glue, scissors, pencils/pens	cardboard

construction paper Spanish moss

Procedure

- 1. Working in assigned groups, students will be given a plastic bag containing a sample of Spanish moss.
- 2. Students are to create a product which can be made using the moss sample. A prototype of the product is to be made using the moss and other items such as cardboard, foil, wood, etc. (Student ideas will vary.)
- 3. As students work on their product they should consider the following:
 - (a) How will this product help make the lives of humans easier?
 - (b) Who will use this product? (i.e., age group, gender)
 - (c) How much should this product cost?
 - (d) How could you advertise this product?
 - (e) Is this product harmful to the environment?
 - (f) How will this product affect the marshlands?
- 4. Using the poster board, markers, etc., students must design an advertisement for this product.

5. At the end, have each group give a "sales presentation." Have them discuss the topics listed in step 3. An extension of the activity would be to have students come up with similar ideas using other items from Louisiana. (ex. pecan shells, oyster shells, etc.).







A. <u>PREVIEWING OUESTIONS AND ACTIVITIES FOR LIFE FROM THE WATER - DEATH</u> <u>FROM THE SEA</u>

Questions

- 1. Why is wetland loss occurring?
- 2. What is meant by the expression "Life from the water/Death from the sea?
- 3. List the contributions of the Croatians, Philippinos, and Chinese.

Activities

- 1. Discuss recent local hurricanes and devastation caused by each.
- 2. Discuss how Hurricane Andrew affected our lives.
- 3. Locate Grand Isle on Louisiana map and make a list of its unique features.
- 4. Let students who have visited Grand Isle share their experiences.

B. VIEWING STRATEGIES FOR LIFE FROM THE WATER - DEATH FROM THE SEA

- 1. Supply outline of major concepts of section. Students complete outline while viewing video.
- 2. List five things you would like to know more about.
- 3. Note-taking
- 4. Listing concepts.

C. POST-VIEWING QUESTIONS FOR LIFE FROM THE WATER - DEATH FROM THE SEA

Questions

- 1. The hurricane disaster of Caminadaville was the second largest loss of human life in U.S. Why were thousands of people compelled to live so close to the coast?
- 2. Why is the loss of life due to hurricanes less today than the hurricane disaster of Caminadaville?
- 3. Describe problems contributing to the vanishing Louisiana wetlands and formulate proposed solutions to the problems.
- 4. List in a graphic form the causes of natural and human (or artificial) wetland loss.
- 5. What are human activities influence wetland loss?

Activities

- 1. Establish pen pals in Barataria-Terrebonne estuary system.
- 2. Write Barataria-Terrebonne estuary system poetry.

Extensions

Guest Speakers

Central Louisiana Electric Company, (CLECO), offers videos, video-based units of study, classroom experiment kits, workbooks, lesson plans, literature, and classroom demonstrations to Louisiana educators on our environment and many other topics. CLECO pays shipping and return postage for all requested educational resources. CLECO, P. O.

Box 5000, Pineville, LA, 71361-5000, ph. 1-800-622-6537.

Louisiana Nature Center brings nature to your classrooms. Learn about adaptations, classification, basic characteristics of animals and food chains. Live animals and touchable artifacts are an integral part of this program. Louisiana Nature Center, P.O. Box 870610, New Orleans, LA 70187-0610, ph. 504-243-3395.

Lora Chanson, Houma Tribe. Lora is a dancer, works with the youth of her tribe and the Intertribal Council of Louisiana. She teaches and demonstrates contemporary beadwork and tribal dances. Contact her through LA Wildlife and Fisheries Museum, Kenner, LA, ph. 504-468-7232.

Jim Creel, Eastern Band of the Cherokee. Jim teaches and demonstrates the art of flint knapping. Various stones were used for the shaping of points of all sizes. Flint and obsidian are two of the best known materials, each with their own characteristics. Have students try to identify tool's use by the shape of the point. Contact through LA Wildlife and Fisheries Museum, Kennel La., ph. 504-468-7232.

Janie Luster, Houma Tribe, Artist. Known for her garfish and redfish scale jewelry, Spanish moss dolls and palmetto baskets Demonstrates basket weaving, teaches about the Houma tribe and artwork. Contact through LA Wildlife and Fisheries Museum, Kenner, La., ph. 504-468-7232.

Mary and Ron Guidry, Cherokee Tribe. Demonstrate leather work and period reproduction clothing. They work leather bags, pouches, and accessories as students watch. They appear regularly at Acadian Village in Lafayette. Contact through LA Wildlife and Fisheries Museum, Kenner, La., ph. 504-468-7232.

Field Trips:

Cannes Brûlée (Burnt Cane) Native American exhibit at Louisiana Wildlife Museum, 303 Williams Blvd., Kenner, La., ph. 504-468-7231. Living exhibition of our natural environment presented by Native Americans dressed in period attire, circa 1750-1815, as they demonstrate their cultural heritage through folk tradition, rituals, domestic and occupational crafts, and foods. Open T-SA, 9 a.m. - 5 p.m. Website: <u>http://wwwrivertownkenner.com</u>.

Louisiana Nature Center, 5601 Read Blvd., Joe W. Brown Memorial Park, New Orleans, LA 70187, ph. 504-246-5672; 800-774-7394. Offers many and varied experiences for teachers and students, including Louisiana Wildlife, The Wilderness Park, Bayou Savage/Wild Wetlands, Wildlife Ecology, Wetlands Ecology, Archeology, plus many more. Nearly all programs are hands-on, and some may require getting wet and muddy. Open T-F, 9 a.m. - 5 p.m.; SA, 10 a.m. – 5 p.m., SU, NOON-5 p.m. Website: <u>http://www.auduboninstitute.org/Inc/</u>.

The Crosby Arboretum, 370 Ridge Road, Picayune, MS, ph. 601-799-2311. Savanna, Aquatic and Wetlands, and Woodland Exhibits. Open W-SU, 9 a.m. - 5 p.m.

ACTIVITY: Louisiana Syllables

Objective

1. To employ syllabication generalizations

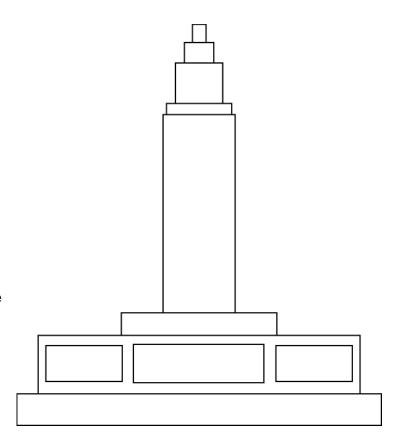
Materials

poster board	
exacta knife	

felt pens crayons

Procedure

- 1. Cut poster board into the shape of the state capitol.
- 2. Cut evenly spaced windows.
- On the front, above the windows, write the words which are to be divided into syllables. On the back, above the windows, write the correct division so the building can be flipped over to check answers. Possible words for syllabication/video vocabulary: resources, alligator, trembling, nutria, levees, immigrants, sediment, barrier, cultivate.
- 4. Student Directions Place your paper under the board and write through the cutout windows the correct division of syllables for the words written above the windows. When you are finished, flip the building over, place it over your words, and check your answers.



pens, markers

Evaluation

Self-check.

ACTIVITY: Crawfish Claws and Tails

Objective

1. To recognize affixes as syllables with meanings of their own.

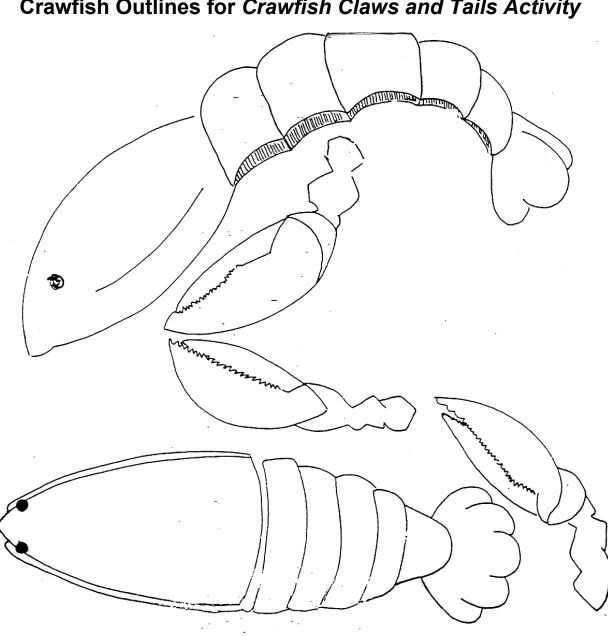
Materials

red poster board felt list of affixes

Procedure

- 1. Cut several crawfish from red poster board (see next page).
- 2. Cut off the claws and tails.
- 3. Write root words on each body.
- 4. Write suffixes on tails.
- 5. Write prefixes on claws.
- 6. Code claws, bodies, and tails for self-check.
- 7. Student Directions Take the crawfish parts to see how many crawfish you can make from words with a prefix and suffix. Write your words on a piece of paper. Try to define each word using what you know about prefix and suffix meanings.

Evaluation: Self-check.



Crawfish Outlines for Crawfish Claws and Tails Activity

ACTIVITY: Paddling with Plurals and Possessives

Objective

1. To employ plurals and possessives

Materials

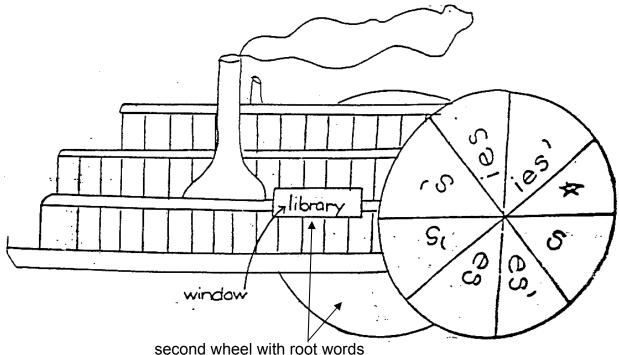
poster board markers

brads

Procedure

- 1. Prepare an enlarged copy of the riverboat (see below). Cut out a space for the window.
- 2. Make two large wheels. On one, write the plural and possessive ending and attach at the back of the boat. On the second wheel write the root words and attach behind the window.
- 3. Make a master list.
- 4. *Student Directions* Make three columns on a sheet of paper. Label them singular, singular possessive, plural, and plural possessive. Rotate the wheel of root words. By rotating the paddlewheel, see how many endings you can add to the root word. Write the new word in the correct column.

Evaluation: Self-check.



ACTIVITY: Louisiana Meteorology or Louisiana Maps

Objective

1. To understand weather maps*

Materials

markers, felt pens tag board weather maps* from local newspapers

Procedure

- 1. Collect weather maps from newspapers (or other types of maps)
- 2. Mount maps on tag board and laminate.
- 3. Prepare manila folders, each containing map and statements about the map for students to respond to with "yes," "no," or "I can't tell."
- 4. Laminate the statement page so students can write on the page with erasable pens. Record the answers on the back of each map.
- 5. *Student Directions* Choose a map folder. Read the statements related to the map and write "yes," "no," or "I can't tell" by each statement. Check your answers on the back of the map.

*Variations: Substitute Louisiana, or local area, geographical or topographical maps for weather maps.

Evaluation Self-check.

ACTIVITY: Data Search

Objective

1. To locate information

Materials

dictionaries	atlas
globes	Internet

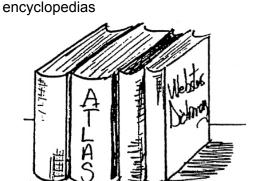
Procedure:

- 1. Set up a center in the classroom where students may work with reference materials.
- 2. Have students work in this center approximately 15-20 minutes during a given period of time, (i.e., one week).
- 3. Prepare a list of questions such as the ones listed below:
 - What appears on the Louisiana state flag?
 - What country includes this location: 60° N Latitude, 80 °E Longitude?
 - What does the first three paragraphs of the Constitution of the State of Louisiana say?
 - What company profited the most from the cypress logging industry in Louisiana?
- 4. Prepare an answer list for self-check or informal assessment.
- 5. *Student Directions* Each of you will visit this center daring the next few days. You should choose five questions to answer. You should answer each question and give the resource/reference book which provides the most in-depth answer.

Evaluation Self-check or informal assessment.

maps

manila folder



ACTIVITY: Louisiana Day Trips

Objective

1. To familiarize students with Louisiana and to use the scale on a map to determine distances.

Materials

Louisiana maps** index cards (3"x5")

Procedure:

- 1. Prepare a box of *trip cards*. Each card will list departure and destination point.
- 2. Include blank cards for students to record their responses.
- 3. Duplicate map, if necessary.
- 4. Indicate mileage scale on map or highlight on map.
- 5. Laminate map.
- 6. *Student Directions* In this center, you will plan a trip by automobile between two cities in our state. Select a card which will tell you your departure and destination cities. Draw your route on the map and record your plan on an index card. Include the highways traveled, direction of travel, distance between cities, approximate time needed, and list names of cities encountered enroute.

*Technology Integration: Have students use MapQuest (http://www.mapquest.com) to complete their work.

Evaluation Self-check

** A great selection of downloadable Louisiana maps is available at http://www.netstate.com/states/maps/la_maps.htm

ACTIVITY: Louisianaology

Objective

1. To perceive analogous relationships

Materials

poster board or tagboard markers, scissors cutouts of Louisiana

Procedure:

- 1. Make at least two poster board cutouts of Louisiana (diagram at right).
- 2. Put the following analogies related to Louisiana on the cut-out and laminate:
 - Houston is to Texas as New Orleans is to b.
 - Crawfish is to etouffee as shrimp is to c.
 - Steamboat is to Mississippi River as pirogue is to d.
 - Arizona is to desert as Louisiana is to e.
 - Texas is to Longhorn as Louisiana is to f.

notebook paper, pencil



- Mississippi is to Jackson as Louisiana is to g.
- Florida is to orange as Louisiana is to h.
- Meatballs is to spaghetti as red beans is to i.
- Shrimp boats are to fishermen as oil rigs are to j.
- Trout are to fishermen as muskrat are to k.
- 3. Provide paper for students to trace the state and create their won analogies related to Louisiana.
- 4. Make an answer sheet for self-check.
- 5. *Student Directions* Complete the Louisiana analogies and check to see if your answers are correct.

Extension

Copy the cut-out of Louisiana and create analogies on these and other Louisiana topics: sports, music, foods, transportation.

Evaluation Self-check

ACTIVITY: Louisiana and Beyond (Spin-a-Setting)

Objective

1. To perceive the relationship of the setting to the situation.

Materials

Stories related to this video markers, felt pens or Louisiana

construction paper

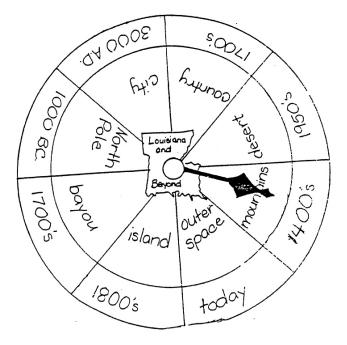
brads

scissors

Procedure

- 1. Make a spinner as illustrated (see example at right)
- 2. On each segment of the spinner, write a place and a time period.
- 3. Student Directions Read a story, paying special attention to the setting. Spin the spinner once to determine another place and spin again to determine another time. Make a notation of your results. Rewrite the story you read using the new setting.

Evaluation Group/class sharing



ACTIVITY: Louisiana Weather Folklore

Objective

1. To understand relation of weather folklore and scientific meteorology.

Materials

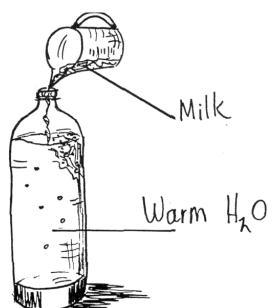
poster boardLouisiana outline patternclear 2-liter soda bottle(s)very warm tap watercold milkResearch resources (almanac, encyclopedias, weather magazines, etc.)

Procedure

- 1. Make a poster board cut-out of Louisiana (Copy enclosed.)
- 2. Print the following examples of weatherfolk on the poster board cut-out
 - a. Fresh breeze in summer, boaters take cover.
 - b. Red sky at night, sailor's delight. Red sky in the morning, sailors take warning.
 - c. When the wind is in the south, the rain's in its mouth.
 - d. A west wind carrieth water in his hand.
 - e. With dew before midnight, the next day will surely be bright.
- 3. Student Directions Research each of these examples of weather folklore. On a sheet of paper, explain what each means to us according to scientific meteorology and give a weather pattern/example of each. Also, does that particular saying apply to us in Louisiana? See if you can find other examples of weather folklore.

Class Demonstration (Complete in groups after all research is completed.)

- The saying "Fresh breeze in summer, boaters take cover," refers to the outflow of a cumulonimbus cloud the characteristic violent downburst of air often ahead of the cloud itself. To better see what a downburst looks like, you can create a model of an outflow boundary. Fill the clear container 2/3 full of very warm tap water. Slowly pour a small amount of cold milk into one comer of the container. Look through the side to see the movement of the milk.
- The milk will appear to form a wedge shape, showing you the downward motion of the colder substance. Notice that the milk spreads nut when it reaches the bottom of the container. The downward rush of the cold air spreads out in a similar manner when it reaches the Earth's



surface. Therefore, those feeling should be alert for the thunderstorm that may soon follow.

Evaluation Group/class sharing

References

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