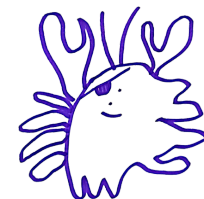


NOTES

Living
with
water

THIS JOURNAL
BELONGS TO:

MY TEACHER'S
NAME IS:



NOTES



- What is a wetland? Write down everything you know!
There are no wrong answers!

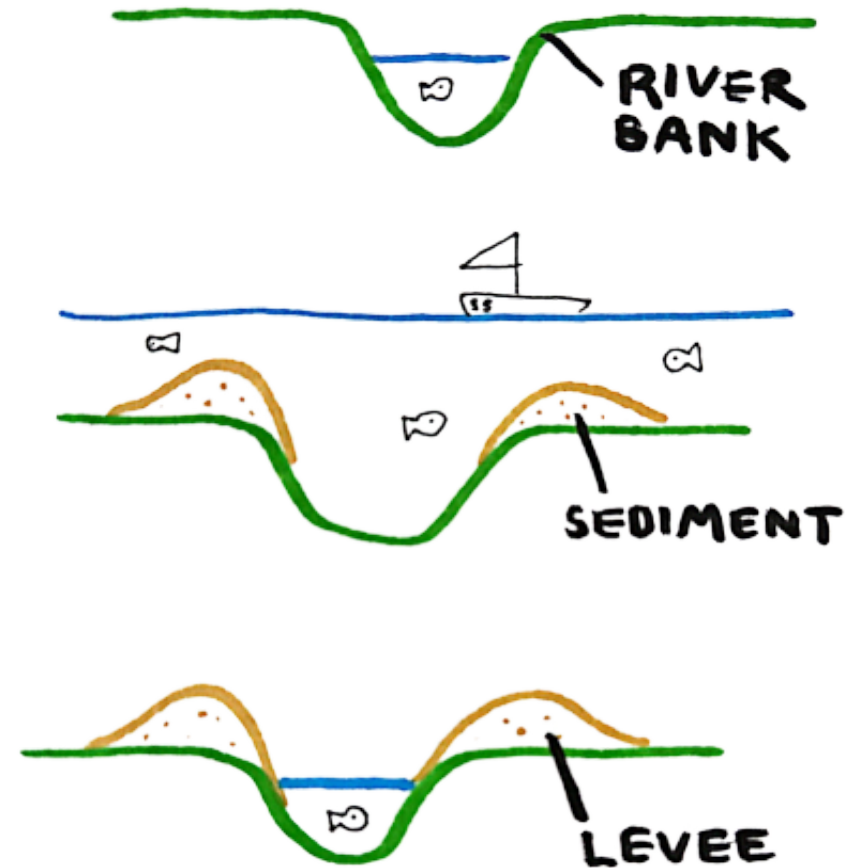
- What does a wetland look like? Use words or drawings to help you describe.

- Why do you think wetlands are important? Glue a photo below that makes your point easy to understand. Describe what is happening in the photo and why it is good or bad.



- Sediment is simply dirt, sand, soil or rocks. Sediment can be found floating in a body of water or carried by a river.

- When it rains a lot, the rivers, lakes, and bayous in Louisiana get too full and cause flooding. When the river overflows, it deposits sediment on the river bank forming a levee. A levee is basically a hill next to a body of water.



- Every time the river floods, the sediment sticks together and the levee builds a little higher. Next time, it will take even more water for the river to flood.

- The Mississippi River ends at the Gulf of Mexico and all of the river water flows out into the open ocean. At the end of its journey, sediment that was carried within the river either...
 - Floats around, making the water a muddy brown color
 - Or sticks to other sediment and starts to build land

• What plants live in the wetlands?



Cypress



Live Oak



Willow

• What animals live in the wetlands?



Brown Pelican



Nutria



American Alligator



Blue Crab



Roseate Spoonbill



Red-eared Slider Turtle

- Select a photograph from your field trip to the museum and glue it on this page. Describe what is happening in the photo using the lines below.

- Why is water a threat to people in South Louisiana?

- In what ways is water an asset for people in Louisiana?



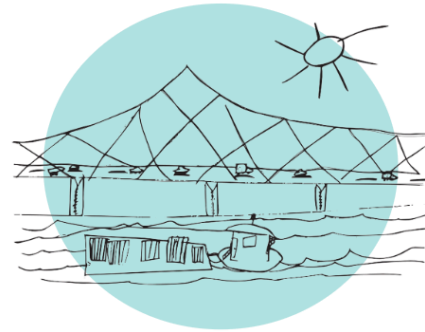
- What is your favorite plant or animal from the story? How has this species adapted to life in a very wet environment?

- Draw a picture of your favorite plant or animal below showing the special feature it adapted that helps it survive in the wetland. Draw an arrow pointing to the adaptation.



Lesson 2: What do wetlands do?

Wetlands make it possible for humans to live in coastal areas. The spongy soils absorb rainwater that could cause flooding, roots of plants hold sediment together and prevent soil erosion, and wetland trees block hurricane waves from crashing into coastal cities, like New Orleans. Sadly, many people do not understand the important role that wetlands play in our lives.



Words to know:

- **Native** (*adjective*) - grown, produced, or originating in a particular place or region
- **Habitat** (*noun*) - a place that meets all the conditions an organism needs to survive
- **Absorb** (*verb*) - take in or soak up, usually referring to a liquid
- **Vegetation** (*noun*) - plants found in a particular area, environment, or habitat
- **Erosion** (*noun*) - the gradual destruction of something by wind, water, or other natural agents
- **Filter** (*verb*) - remove unwanted material by passing through a device or undergoing a process
- **Dredge** (*transitive verb*) - to deepen with a machine that digs, gathers, and pulls out material
- **Fill** (*verb*) - to place materials in a wetland with the goal of increasing elevation, creating upland

- **When wetlands are destroyed to make room for new buildings, cities lose flood protection and native plants and animals lose their special habitat.**

- **Loose soils act like a sponge to absorb water from rainstorms, hurricanes, and floods so that the water doesn't fill in our homes.**

- **Without wetlands to capture and hold water, the chance of flooding in coastal cities increases!**



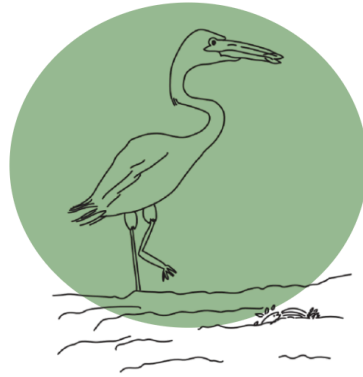
- **What is a wetland? Why are they important?**

- **What do you think might happen to the natural landscape when we change the flow of the river? Why?**

Lesson 4: Wetland Wrap-up

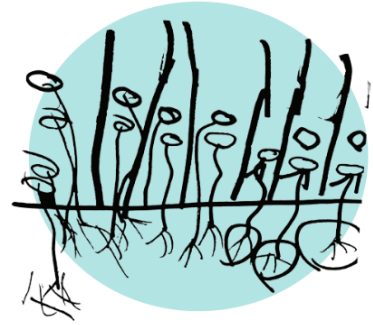
“Louisiana’s coastal wetlands are the nursery grounds of the Gulf of Mexico.” These words are written on the wall of the Louisiana Children’s Museum to remind visitors of the importance of relationship to water.

The Mississippi River provides fresh sediment and nutrients to the coast of Louisiana, and wetland habitats offer these resources to the special species that thrive in a swampy region. As you’ve learned, human beings have changed the way we build our cities to adapt to water using boats, bridges, levees, & man-made wetlands.

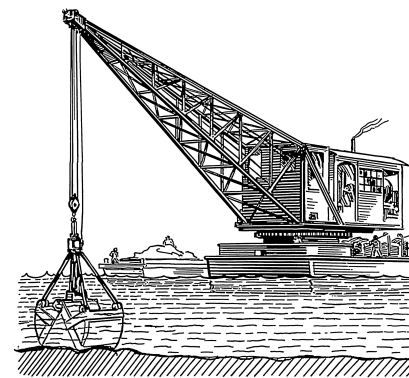


- How do people change the way that water moves? Draw an example from your visit to the Children’s Museum.

- The roots of wetland vegetation traps sediment so that it doesn’t float downstream, building up more solid land.
 - This prevents soil erosion that happens when strong waves crash onto the shore.
 - Fish breathe better without dirt in the water.
 - Wetland plants filter pollution out of the water so that harmful chemicals are kept out of the Gulf of Mexico.



- One way wetlands are disappearing is because human beings use wetlands to dredge for sediment. To dredge means to scoop up and take fresh sediment from a wetland, then move it to be used for building land elsewhere.



- It is difficult to build inside of a wetland because they often flood and the soil is typically in motion. As cities get bigger, wetlands are filled in with concrete to create dry land. Concrete, like rock, does not absorb water.

- Human beings have adapted the way we build our cities so that we can survive in very wet coastal ecosystems.

- In Louisiana, we build our houses on stilts, or tall legs, so that our homes stay dry during floods and hurricanes.
 - How else have we adapted?





Activity: Build your own “Swamp in a Sack”

- **Step 1:** Collect materials that will act like the soil of your wetland swamp. Remember, wetland soils absorb like a squishy sponge.



- **Step 2:** Collect materials that will act like the roots of wetland vegetation. Remember, these roots help sediment stick together.

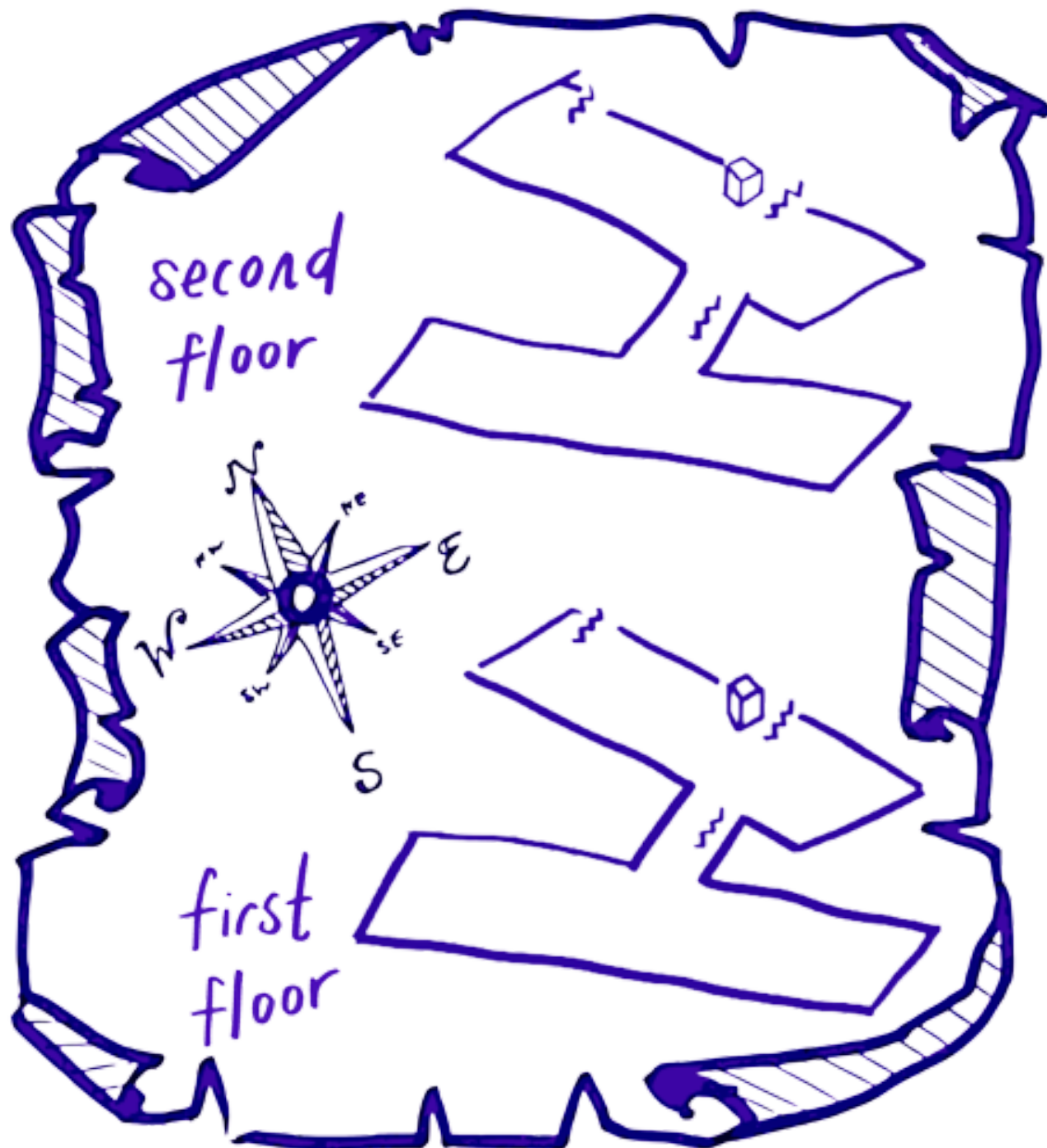


- **Step 3:** Use the materials you have collected to design your own “Swamp in a Sack.” Compare your design with your classmates’.
 - **Tip 1:** You don’t want your “swamp” to fall apart, so make sure it is wrapped up with twine or is inside of a bag that water can flow through. Popsicle sticks are great for building structures.
 - **Tip 2:** You want your “swamp” to be able to hold as much water as possible. Sponges, cotton balls, moss and grains of rice are all very absorbent.
- **Step 4:** Build your “Swamp in a Sack”!
 - On your field trip to the Children’s Museum, we will use your “swamps” on our Sedimentation Table to see what design works best to protect our miniature city.

- Did your “Swamp in a Sack” design work how you expected? What would you change if you built it again?

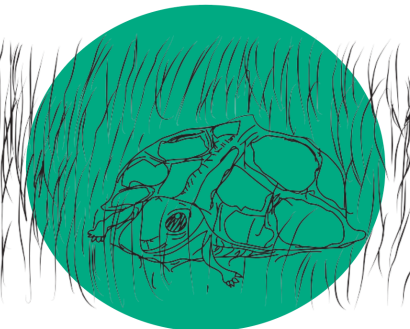
- What things do humans use to travel up the river, against the flow of water? Why do humans want to travel upriver?

- Make your own treasure map showing the path that you walked through the Louisiana Children's Museum.
 - Start at the front desk and draw a line to each gallery you visited in the order that you visited.
 - Draw a big X over the area you had the most fun in!
 - Clue: Look at the map on the other side of this page



- Draw your swamp in a sack design below. Be sure to identify and label what materials you are using for sediment and vegetation.

- Why did you select these materials for your project? What else could you use to make your wetland absorb more?

| | |
|--|---|
| <p>Things you will need:</p> <ul style="list-style-type: none"> • Completed “Swamp in a Sack” • Walking feet & inside voices • Bag lunch, snacks, a reusable water bottle | <p>Activity Overview:</p> <ul style="list-style-type: none"> • See how the Mississippi River shapes our lives by testing your “swamp in a sack” on the <u>sediment</u> table at LCM |
| <p>Lesson 3: Welcome to the Louisiana Children’s Museum!</p>  <p>As you now know, Louisiana is shaped by the Mississippi River - how we build, what we eat, and what we do for work. Today, we are going to explore how flowing water affects the land, the methods people use to change the River’s path, and the tools we’ve built to turn the River from a <u>threat</u> into an <u>asset</u>.</p> | |
| <p>Words to know:</p> <ul style="list-style-type: none"> • Import (<i>noun</i>) - a commodity, article, or service brought in from a country far away for sale • Export (<i>noun</i>) - a commodity, article, or service brought in from another country for sale • Resilient (<i>adjective</i>) - able to withstand and recover quickly from difficult situations • Threat (<i>noun</i>) - a thing likely to cause damage or danger • Asset (<i>noun</i>) - a useful or valuable thing, person, or quality | |

Dig Into Nature - test your “Swamp in a Sack”

- In groups, take turns placing your swamp on the sedimentation table.
- To protect the city, where is the best place to put your swamp? Why?

Move with the River - work as engineers and cargo captains

- Use the locks, spillway, and retention pond to change the River’s flow.
- Grab a boat and some “cargo” blocks, then let them float downstream. This cargo is an export because it was made in the U.S. but sold elsewhere.
- Cargo brought up the river is called an import. Do you know why?

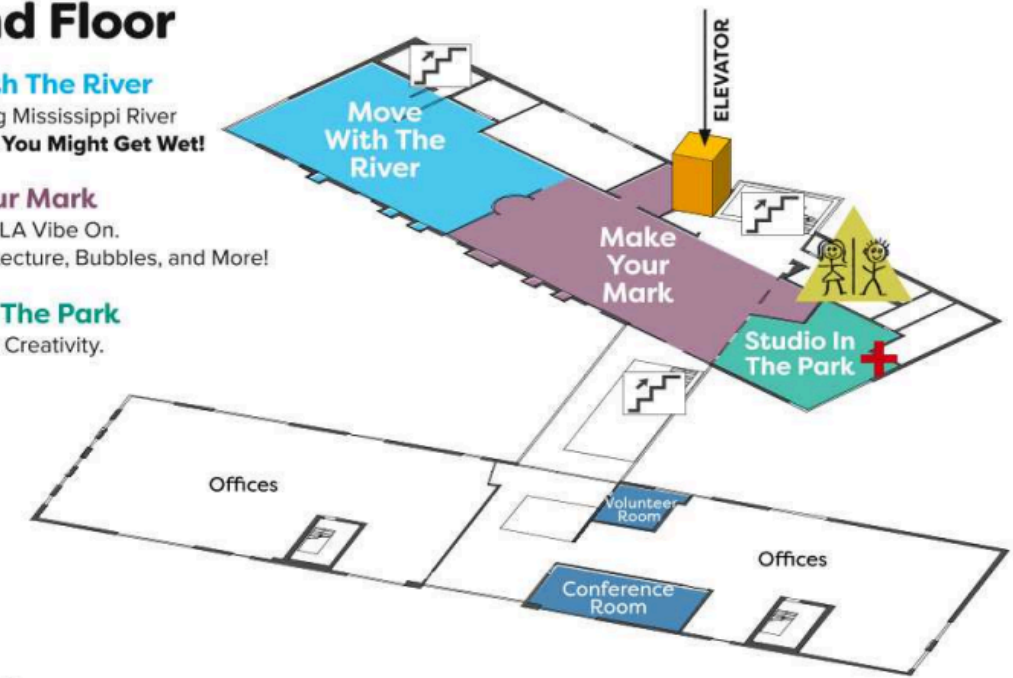
Make your Mark - plan and build a city that works with water

- Use blocks and markers to design a city safe from storms and floods.
- How did you adapt your design to make your city resilient and safe?

Louisiana Children’s Museum Map

Second Floor

- Move With The River**
100-foot-long Mississippi River Water Table. **You Might Get Wet!**
- Make Your Mark**
Get Your NOLA Vibe On. Music, Architecture, Bubbles, and More!
- Studio In The Park**
Indulge Your Creativity.



First Floor

- Dig Into Nature**
Explore Who Lives Here and Our Unique Louisiana Environment.
- Follow That Food**
A Louisiana Food Journey. Grow, Harvest, Deliver, Shop, Cook, and Serve.
- Play With Me**
Welcome to Those **Under 4** with Caregivers.

