

San Marcos Explorers Lesson Plan

DATE: Nov 18 2023

LOCATION: The Meadows Center

TIME: 10:00 AM-3:00 PM

PARTNERSHIPS *(if any)*: The Meadows Center

PROMOTION PLAN:

Who lives in the Wetland?

TOPIC: Homes and Biomes : Native Frogs and Toads in Our Wetland!

GENERAL DESCRIPTION OF WORKSHOP & GOALS:

To create a general understanding of the different habitat types that frogs and toads live in, specifically within the wetland ecosystem. The focus of the lesson is on similarities and differences between Gulf Coast Toads and Bullfrogs, which are both native to the San Marcos region, and live in the wetland at the Meadows Center. This lesson will help the preschoolers better understand how a healthy wetland supports amphibian communities. This program will help build compassion and understanding of the wildlife that share San Marcos, TX as a home.

MATERIALS & COSTS:

Toad Abode Craft Materials:	Price List
Paint Water cups for the paints Paint brushes Paper Towels Markers Scissors Glue Recycled materials like tissue boxes, plastic plant boxes, old/broken pots, milk jugs	
Sensory Board	Held at the Office of Sustainability
Frog Vs. Toad Cardboard Box "Dice"	Held at the Office of Sustainability
Laminated Lily Pads	
Save the Frogs! Game	Held at the Office of Sustainability

Kiddie pool or large taped off area Two buckets Two plastic children nets Trash and recyclables Plastic frogs	All materials are located at the Meadows Center and able to be checked out within one week's notice.
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LESSON PLAN (with timing):

Discussion: meeting students where they are. Formulate questions that will get them to talk about what they already know about the topic, or what they currently associate it with.
 Ex: Where have you seen ____ ? Who has heard of ____ ?

3 minutes

Who has seen a frog before? What did it look like?
 Who has seen a toad before? How was it different from a frog?

Where do you think you are likely to see frogs and toads?

Background: Lay the foundational knowledge that is essential for students to know to understand the topic at hand.
 Ex: pictures or videos

Follow the Canva presentation. 10 minutes.

Background Activity Tools:

Follow the Canva presentation for the first few slides.
 Then transition to the sensory board when you reach that slide on the presentation.

How do they feel? (Feel the difference : frog and toad example skin activity (bumpy vs. smooth)
Gulf Coast Toads are stout with dry, bumpy skin, whereas Bullfrogs tend to be leaner with wet, smooth skin.



Gulf Coast Toad Sounds:

Video embedded in Canva presentation.

Bullfrog Sounds:

Video embedded in Canva presentation.

How do they sound?

Challenge students to make their best Bullfrogs and Gulf Coast Toad sounds.

Gulf Coast Toad Habitat: Places to find the Gulf Coast Toad include irrigation ditches, muddy gardens, or near storm sewers, and even in your own backyard. During the daytime, you might find them squeezing under rocks, bricks, and debris. But once the sun sets, these toads will crawl from their ponds and water bodies to call and look for mates.

Bullfrog Habitat: These amphibians can be found near lakes, ponds, rivers, and creeks that have lush vegetation near the shorelines and banks. Bullfrogs are most active during warm and moist nights and will hibernate when temperatures fall below freezing. You will find them buried in the mud, with just their eyes looking out of the mud.

Background Facts:

Gulf Coast Toads: They can range from two to four inches in length and can be dark brown to greenish-yellow with a distinct stripe down the middle of their back.

Bullfrogs: Bullfrogs are the largest amphibian that is native to Texas, growing up to 7-8 inches in length. A female bullfrog can lay a clutch of about 20,000 eggs! A group of bullfrogs is called an

army. Only male bullfrogs can croak and when joined together, croaking males can be called a "chorus".

Movement Activity: Get them out of their seat in a way that is relevant to the lesson goals.

This should take up 15 minutes of the class time.

3 minutes to discuss the game, 10 minutes to play, 2 minutes to wrap it up.

Movement Activity Option #1

How far can a Bullfrog and Gulf Coast Toad jump?

Map out specific distances with the laminated lily pads based on the distance bullfrogs and gulf coast toads can jump.

Bullfrog: They can jump about 3 feet per jump. The Bullfrog line should have lily pads taped to the ground in 3 feet intervals.

Gulf Coast Toad: Toads prefer to walk or swim, then hop. Place the lily pads for the Gulf Coast Toad line about 8 inches apart.

Have the class line up. Each student will roll the Frog vs Toad dice. Whichever picture the dice lands on designates which line the student should join for the "hopping challenge."

Movement Activity Option #2

Save the Frogs!

The Wetland is home to many frogs. Sadly, humans have polluted their home with trash!

Set Up: Place a kiddie pool (or tape off a large circle) filled with trash and plastic frogs at the far end of the game space. About ten feet away, you will place two buckets side by side to designate each team's trash can. Place a plastic net inside each bucket.

- Split your group into two teams. Have each team stand in line behind one of the buckets. If you have an odd number, one person may need to go twice.
- Tell students that the kiddie pool represents a wetland- this is where frogs live.
- There is pollution in the wetland, so the teams must race to remove trash from the wetland to save the frogs!
- Both teams will send one person at a time to run and scoop one piece of trash with their net. They only have one chance (one scoop) to collect a piece of trash. They must run back to the starting line and put whatever trash they scooped in their team's bucket.
- LEAVE THE FROGS IN THE WETLAND!
- After they put the litter in their team's bucket, they will hand the net to the next teammate so they can have a turn.
- Once all the trash is collected from the Wetlands, each team will count the litter in their team's bucket to see how much pollution they collected.
- Whichever team collected the most items of litter wins!

Local Context: How does this relate to where we are? Where can they find this in their communities?

5 minutes

Did you know that on rainy days you can find frogs and toads if you know where to look?

Bullfrogs and Gulf Coast Toads are both amphibians native to Central Texas and can be found all over San Marcos.

Gulf Coast Toads: Places to find the Gulf Coast Toad include irrigation ditches, muddy gardens, or near storm sewers, and even in your own backyard! During the daytime, you might find them squeezing under rocks, bricks, and debris. But once the sun falls, these toads will crawl from their ponds and water bodies to call and look for mates.

Bullfrogs: These amphibians can be found near lakes, ponds, rivers, and creeks that have lush vegetation near the shorelines and banks. Bullfrogs are most active during warm and moist nights and will hibernate when temperatures fall below freezing.

Activity: A hands-on activity that helps students apply their new knowledge or engage with the material.

Ex: Craft, competition/quiz, presentation, dance, science experiment/lab, etc.

20 minutes

Toad Adobes

Toads love to burrow into soft mud, and can often be found living inside of abandoned flowerpots and gardens. Students will create their own Toad Abode to hide in their backyard, school yard, or any other green space they have access to. Make sure you emphasize that they should ask before placing it in someone else's yard.



Set Up: Each table group should have a variety of supplies, including:

- Small plastic planters and jugs
 - Be sure to cut the “Toad Abode” doorway prior to class. This is how the toad hops inside their new home!
- Paints
- Paintbrushes
- Water cups
- Glue
- Construction paper
- Stickers and other craft supplies

Students will work at their own pace to decorate their toad abode. Let them dry in a safe place, and they can pick them up the next day!

Call to Action: What can they do with this new knowledge? How can they be a “do-er” in their own community? This is a closing statement or question.

5 minutes

“Now that you know where Gulf Coast Toads tend to live, where will you put your new Toad Abode? Be sure to check it after it rains!”

Find a place in your yard that you think would best fit a toad abode! Think back on when we talked about where they like to sleep and live. This could be by a drain, gutter, or area that gets pretty damp.

EXTRA TIME GAMES - RELATED TO TOPIC AND NO ADDITIONAL MATERIALS

-The floor is a Wetland!! Jump on a lily pad!! (floor is lava, wetland style - anything could be lily pad **we have lots of hula hoops at the meadows center. We could use those!**)

-Ribbit, Ribbit, Frog (duck, duck, goose)

-Poison Dart Frog (starts with everyone sitting in circle with their eyes closed until someone taps on a “poison dart frog”, then eyes open, and the chosen poison dart frog secretly sticks tongue at person – if you get a tongue stick at you, you must act poisoned , it continues until someone guesses correctly)

Pictures for cube visual aid



