

Galveston Bay Wildlife

Time: 45 min to 1 hour

Materials (per student):

Animal List
Paper Bags
Tablets/Computers
“Guess the Animal”

Materials

Scissors
Ziploc Bags
Clipboards
Paper
Pencils

Texas Essential Knowledge and Skills (TEKS):

Science

K: 10A

1: 10A

Citations:

<https://www.galvbaygrade.org/wildlife/>

<https://www.abnc.org/nature-blog>

<https://www.kidzsearch.com/sites.html>

<https://kids.nationalgeographic.com/>

<https://www.dkfindout.com/us/animals-and-nature/>

www.galveston-travel-and-charm.com

Lesson developed by The Galveston Bay Foundation

Teacher Information Page

Objectives:

- Students will be able to sort and group animals that live in or near Galveston Bay based on physical characteristics such as color, size, and body covering.
- Students will be able to investigate how the external animals who live in or near Galveston Bay are related to where it lives, what it eats, or how it moves.

Background:

The Bay is home to a variety of animals such as birds, fish, crabs, oysters, amphibians, insects, and mammals.

Finfish and bird populations are considered adequate and maintaining, while some shellfish populations are deteriorating and require action. Galveston Bay and its watersheds are home to a diverse assemblage of wildlife species. Some species are economically important to the region. Examples include species of shellfish — like shrimp, crabs, and oysters — that are harvested and sold to consumers in restaurants and grocery stores.

Other species of animals, like speckled trout and flounder, are popular for recreational fishermen. Still other species are important components of the Bay food web (the network of organisms that consume and interact with one another). Trends in wildlife populations are great indicators of the health of the Bay. Conservation and restoration efforts can be evaluated by looking at increases or decreases in the number of animals found in and around the Bay.

Other Galveston Island Wildlife

- Mammals: Rabbits, Squirrels, Beaver, Muskrat, Nutrias, Bottlenose Dolphin.
- Reptiles: Rattlesnakes, Cottonmouth, American Alligator, Lizards, Salamanders and Turtles.
- Marine Life: Blue Crabs, Sand Crabs, Shellfish, Sting Rays, Hermit Crabs, Bull Shark, Hammerhead Sharks, countless types of saltwater fishes.

Invasive Species are species of plants, animals, and microorganisms that are harmful to natural systems and may be destructive to infrastructure. They are often very difficult and expensive to control and can damage crops, fisheries, habitats, coastal prairies, forests, and other resources.

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Before the lesson:

1. Gather animal toys or print and cut out animal page (included).
 - a. For Animal Toys, find some that resemble the animals in the cut-out page as closely as possible or find other animals that live near or in Galveston Bay.
 - b. For Animal Cut-outs, make ahead of time by printing on white cardstock and cutting into individuals.
2. Create a mind map for an animal from the cutout list or use the one given as an example.
3. Prepare "Guess That Animal" Bags. Some bags will have objects, words on cardstock slips that may be clues, or words on cardstock slips that are sound cues that will be played by the teacher when revealed by the student.
 - a. Brown Pelican-Guess 1: Bird Feather, Plastic Egg, Twigs, Scoop(to resemble bills)
 - b. Bottlenose Dolphin-Guess 2: Swims up and down(Word)**Students try the movement**, Dorsal Fin(Picture), Sound 1(Cue Card), Lives in Pods (Word)
 - c. Red Eared Slider-Guess 3: Pet(Word), Rock, Floating Turtle Pellets, Strong Swimmer (Word)
 - d. Blue Crab-Guess 4: Blue(Word), Claw(Real or Picture), Shell for Crab, Crawls(Word)

Procedure:

Intro:

1. State to the students: "Today, we will be learning about the different wildlife that live around or inside Galveston Bay. How they move, what they eat, their color, size, and body covering. We are going to be sorting them by physical characteristics as well."
2. Then, ask the students about what kind of wildlife that they have seen around this area (at the park, in their backyard, or at the beach).

Part 1:

3. Gather the students in a circle to play a game called, "Guess That Animal!" Explain that this game will be a guessing game to see what they know about the animals that live in or near Galveston Bay.
4. Give one bag to a student and tell them to pull out one item. They can see the object and determine a guess or keep pulling out items. If they guess and answer incorrectly, then the bag moves to the next person. When the answer is revealed, the next bag is given to another student. The game continues until all bags have been guessed and the students reveal the answers. Ask questions during the game such as:
 - i. "Why do you think that?"
 - ii. "How do you know?"
5. After the game is complete, have a discussion with the children that all of these animals live in or near Galveston Bay. Show them the "Animal List" and explain that there are so many other animals that live in the bay just like the ones that we talked about during the game. Go through each animal on the list with a little bit of information to see if all the children understand what these animals are.

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Procedure continued:

Part 2:

6. Put the children in groups of three or four and they will now be given the “Animal List” bag. They are going to be asked to use the animal cutouts that are given to them to sort the animals in anyway that they want to. Give them three minutes to decide as a group. (Individual option)

7. After the time is up, ask each group to explain how they chose to group the animals and why.

8. Ask the children to mix up the cutouts and now sort the animals by color. Wait a few minutes and walk around to observe their progress. Ask a few groups how they sorted by color.

- “Was it by pattern, multiple colors, or one color?”

9. Ask them to mix up the cutouts and now sort the animals by size. Wait a few minutes and walk around to observe their progress. Ask a few groups how they sorted by size.

- “Did you sort by small, medium, big? How else could you sort by size?”

10. Ask them to mix up the cutouts and now sort the animals by body covering. Body covering meaning what is on the animal’s body. Wait a few minutes and walk around to observe the progress. Ask a few groups how they sorted by body covering.

- “Did you sort by texture? Smooth and rough? Feathers, gills, or fur?”

11. Instruct the children to put the cutouts back in the bags and bring the children back to a learning space together. Pass out a clipboard to each student with a piece of blank paper and a pencil. Ask them what they know about the animals that they had to group (cutouts). For example:

- “What do you know about the beaver?”
- “Have you seen one?”
- “How can you explain what they look like?”
- “What color are they?”
- “Do you think they live on land or in the sea?”
- “How do they move?”
- “Do they slither, walk, or fly?”

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Procedure continued:

Part 3:

12. Tell them that they will pick one of the animals that they had to sort. Whichever one was their favorite or one that they want to learn more about. They are going to research a little bit more about this animal by using search engines on tablets or computers. They will keep this information that they gather in an organized **mind map** (Show the example made ahead of time)

13. Show examples of how to research the animal of their choice by using these search engines for young children. Let them know that they might have to go to a few different ones to find information that they need.

- They can write about the animal's body covering, color, size, how it moves, what it eats, and where it lives in Galveston Bay and other parts of the world.
- Write what they should put in their mind maps on a board or display for them to remember.
- Keep example available for children to see and the search engine addresses for easy access.
(Making search engines a bookmark on tablet or computer can save time)

- <https://www.kidzsearch.com/sites.html>
- <https://kids.nationalgeographic.com/>
- <https://www.dkfindout.com/us/animals-and-nature/>

14. Set the children a timer of 20 minutes to find as much interesting information about their animal as possible.

15. Bring student back together and give some (if not all) students a chance to share with the rest of the class the what they discovered.

Extensions:

- Allow children to go explore outside and see which animals they might be able to observe near the bay before the research.
- Go on a field trip to Trinity Bay Discovery Center in order to find some wildlife to see in person.
- Allow the students to create a gallery walk, so that they can walk around to see what other students have discovered in their research.
- Give the students to art resources to create a display of the animal of their choice.
- Create a classroom large picture of the Galveston Bay with butcher paper and each student create their animal before placing it on the display. (Land, Water, Air Animals)

Virtual Options:

- Instead of using the "Guess that Animal" bags, go to this link (<https://www.education.com/game/guess-the-animal/>) to play a "Guess the Animal" game. Explain that some of these animals live in and near Galveston Bay, but some do not.
- Instead of printing the "Animal List" and sorting animals into different groups, go to this link (<https://www.brainpop.com/games/sortifyanimals/>) to choose how you want to sort the animals. Explain that some of these animals live in and near Galveston Bay, but some do not. Change up the questions to see if they can sort the animals by the labels provided.

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Blue Crab



American Alligator



Brown Shrimp



Bottlenose Dolphin



Beaver



Red Eared Slider



Sheepshead Fish



Black Crowned Night Heron



Gafftopsail Catfish



Brown Pelican



Red Drum Fish



Cottonmouth Snake



Green Anole Lizard



Rabbit



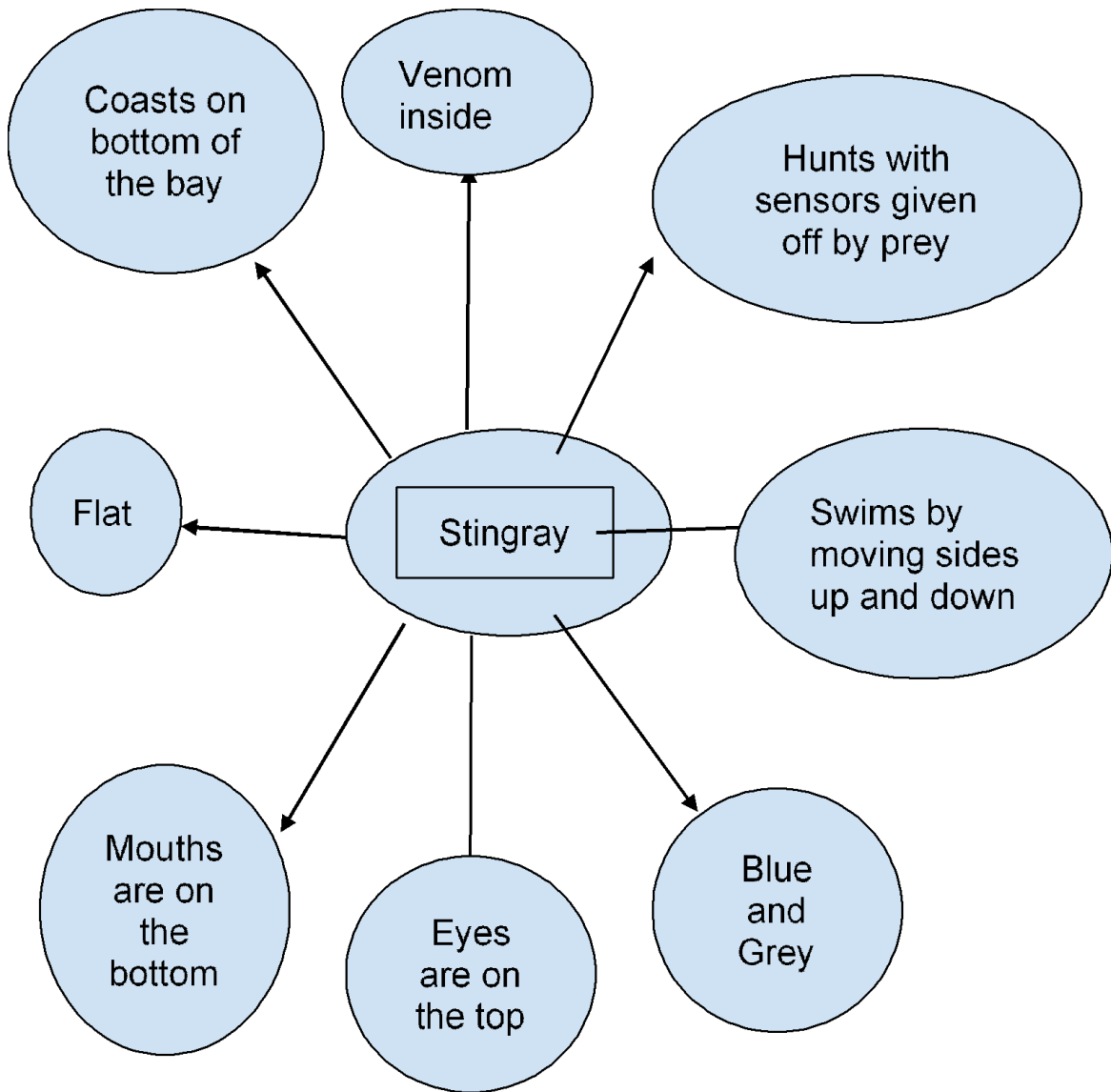
Squirrel



Stingray

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Example of Mind Map: Stingray



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Name: _____

