Education Dept.
Georgia Aquarium
225 Baker Street NW
Atlanta, GA 30313
404.581.4198

Aqua Adventure Teacher Guide
Pre-K

Dear Educators,

We are happy you are visiting us here at the Georgia Aquarium and extending your classroom to include our saltwater and freshwater habitats.

The following guide has been designed to make your day at the Aquarium engaging and fun for you and your students. We have divided it into three sections – *lesson overview, activity guide, and activities*. For the Pre – K guide, we designed the on site activity guide as "to do" lists where the students can stop and make an observation, answer a question, or listen to a speaker as they tour the Aquarium.

Extension of your classroom: As educators ourselves, we are excited to offer you this space as an extension of your own classroom. The following activities have been correlated to the Pre-K Performance Indicators.

Enduring Understandings for Aqua Tales:

1. Animals have different shapes, colors and sizes that help them live in their unique habitats.
2. Through observations we can learn about aquatic animals, their habitats, and their unique movements.

Objectives:

1. Students will understand that the movement of animals is important to their survival.
2. Students will understand that animals do not look the same through all stages of their life cycles.

Performance Indicators Addressed:

Language & Literacy Development

LD 1: Children will develop skills in listening for the purpose of comprehension
- 1.Listens to and follows spoken directions
- 2.Responds to questions
- 6.Uses pictures or symbols to identify concepts

LD 4: Children will develop and expand expressive language skills (speaking)
- 1.Engages in conversations with adults and children
- 2.Uses language to pretend or create

Mathematical Development

MD 1: Children will begin to develop understanding of numbers
- 1. Counts objects using one-to-one correspondence

2.Compares sets of objects using language

4.Associates numeral name with set of objects

MD 2: Children will create and duplicate simple patterns

1.Copies a pattern using sounds or physical movements

MD 4: Children will develop a sense of space and an understanding of basic geometric shapes.

1.Uses language to indicate where things are in space: positions, directions, distances, order

MD 5: Children will learn how to use a variety of non-standard and standard means of measurement

1.Uses mathematical language to describe experiences involving measurement

Scientific Development

SD 1: Children will use processes of science to actively explore and increase understanding of the environment

b. Uses senses to observe, classify, and learn about objects

c. Uses language to describe observation

SD 2: Children will acquire scientific knowledge related to life science

1.Observes, explores, and describes a wide variety of animals and plants

2.Understands that plants and animals have varying life cycles

SD 3: Children will acquire scientific knowledge related to physical science

2.Describes objects by their physical properties

1.Investigates different types/speeds of motion

Social & Emotional Development

SE 3: Children will increase the capacity for self-control

1.Follows rules and routines within the learning environment

SE 4: Children will develop interpersonal and social skills for relating with other members of the learning community

1.Interacts appropriately with peers and familiar adults

4.Participates successfully as a member of a group

Health & Physical Development

HPD 2: Children will participate in activities that foster fine motor development

1.Performs fine-motor tasks that require small-muscle strength and control

From the Georgia Department of Early Care and Learning Georgia's Pre-K Program Content Standards, revised July 2005

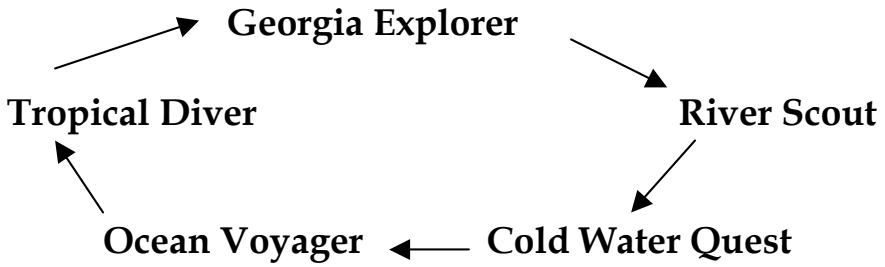
Overall Format: Each gallery has a few stops at which we recommend you spend a little more time with your students. Each stop is highlighted by an exhibit overview and some guiding questions for the students (and answers for the adults). These questions are meant to help highlight key concepts for your group, whether it be observing an animal's behavior or simply finding some of our favorite animals in the exhibit.

Whenever your group is in front of the larger gallery windows at the aquarium, we ask that students sit cross-legged in a few rows close to the window. If all students sit on their bottoms and not on their knees, everyone in the group is able to see. We recommend rows

of about 7 so that no group takes up more than about one third of a window at a time and everyone behind the group can see.

At our touch pools, students will have the opportunity to explore using their senses. For the safety of the animals, please make sure they are touching softly with two fingers and not grabbing. Some students might not be tall enough to reach all of the animals. Please make sure that you watch your students carefully for their safety as well as that of the animals.

Your groups: While at the aquarium, the smaller the individual group the better. One chaperone with five to seven students is much easier to manage than two chaperones with twenty students. This allows everyone to see the exhibits as well as help with traffic in the galleries. We also recommend that your entire group does not start at the same gallery. Have them split up and start in different galleries and rotate. Here is our recommendation on how to rotate:



Considering that every gallery exits to the main atrium, it is easy to set up an end meeting point before exiting through the gift shop or eating. **We recommend all the adults pick up a map when you enter the Aquarium to help orient you in the building**.

Rules: Finally, to ensure a great visit, we ask that you share the following rules with your students and chaperones for the safety of our animals and your students.

1. No running
2. Be respectful of the other guests
3. No horseplay, pushing or shoving
4. Use indoor voices
5. No tapping on the windows – it can be very bothersome to our animals
6. **Students and chaperones need to stay together at all times**
7. No chewing of gum
8. Only touch with two fingers

We hope you have an amazing day here at the Georgia Aquarium, the world's most engaging aquarium, and that the tips and tricks listed in this guide are useful in extending your classroom to the watery world. Please be sure to complete our ***Teacher Survey*** located at the end of the guide.

Best Fishes!
The Georgia Aquarium Education Department

Welcome to the Georgia Explorer gallery! Here we will use our senses to discover more about the animals that share our home state with us. Get those two scientific fingers ready to explore and learn more about these animals!

Visit our shrimp boat and see what the fisherman brought in today from the Georgia coast! Students can gently touch native pink and brown shrimp. (A hand washing station is located at the back of the boat.)

What does it feel like? Could you find all the legs? How many legs do you count? (Chaperones may need to lift students to assist them in seeing see, as the step is not enough for some)

Keep those scientific fingers ready, horseshoe crabs and sea stars are next! Which of them do you think is going to be smooth and which one will be rough? Were you right?

Find the Loggerhead sea turtle! Sometimes it likes to swim and sometimes it likes to nap on the rocks. (If the sea turtle is not visible have the students look for the porcupine fish or a lobster)

1. Do you think the sea turtle is bigger or smaller than you?
2. How does a turtle protect itself? *Its hard shell.*
3. What does a turtle breathe? *Air, just like us.*

Follow the stairs near the theater up to the second floor and slide down the whale slide! Make sure to ***walk*** the whole way there. *Chaperones, we suggest one chaperone wait at the top while the other waits for them at the bottom of the slide, but feel free to use the slide as well!*

Rivers and lakes are a huge part of our lives! Wherever you go you will find freshwater habitats all over the world. They are important to us and all the many different animals that live there! Let's go discover just how different all these animals can be!

Meet the African cichlids! *(Pronounced sick-lids)* These animals live in lakes and rivers in Africa and South America. They come in many different colors and sizes.

- Can you find a blue fish, a yellow fish and a blue and yellow fish?
- Besides eating, these clever little cichlids use their mouths to keep their eggs safe.
- Make your face look like you are holding onto a whole bunch of eggs! Sure would be hard work!

Crawl through the tunnel under the river! This river is a North American River that has many different kinds of fish. Look at all the different kinds of mouths these animals have! While in the tunnel, have the students peek through the bubble window and make a fish face. Crawl out of the tunnel and turn to your left to look at the big window. Can you find:

- A fish with a blue/black spot on it's gill? *That's a blue gill.*
- A fish with big lips that look like they are frowning? *That's a big mouth buffalo*

Come look at the North American alligators. Lying perfectly still with their eyes out of the water, alligators will wait patiently for their food while keeping their bodies warm in the sun.

- How many alligators can you find in the exhibit? 7
- What color are the alligators? *Black and yellow*
- The alligators share their home with turtles. Can you find the turtles? How many turtles can you find swimming around or hiding under the logs? *depends*
- What do the alligators use to swim, their tails or their feet? *Tails*

Lurk with the Piranha. These fish hang out together in rivers in South America. Are the piranha moving fast or slow?

- What do you think piranha really eat? *Fish and berries!*
- Can you see their little teeth?
- Why do you think they are called red Piranha? *Their bellies are red.*

Welcome to the colder waters of the world! These include the coast of California, southern Africa, and the north and south poles. Brrr! How do these animals stay warm in these cold waters? With their coverings of course! Let's go explore.

Carefully touch the anemones in the touch pool. To reach down, make sure you lie on your bellies on the rocks and be very, very gentle. Please do not touch the center of the anemone because its mouth is located there. Feel how cold that water is? It's 55 degrees Fahrenheit; that's how cold all the water is in this gallery. (Hand sanitizer is located to the right of the exhibit)

- How do the anemones feel?
- What colors are the anemones and sea stars?

Now turn around and look at the Kelp Forest exhibit behind you, the home where these animals live. Do any of the animals look familiar? Can you find the sea stars sticking to the walls?

The mascot of the Georgia Aquarium, Deepo, is a Garibaldi damselfish. Can you find the Garibaldi damselfish?

Come sit by the beluga whales and relax. Listen to the aquarium staff on the microphone; they will be sharing some have great information about these amazing animals.

- What keeps beluga whales warm? *Blubber (fat under their skin) keeps them warm.*
- What do whales breathe? *Air at the surface through their blow hole on the top of their head.*
- Move your hands together like a whale's tail (up and down); can you think of another animal whose tail moves like that? *Dolphins*
- How does a fish's tail move? *Side to side*

Welcome to the world ocean! We call it the world ocean because all of our oceans are part of one large ocean that covers the entire world allowing these animals to roam from one ocean to another. ***The adults in the groups should pick up a dive card at the beginning of the gallery to help in identifying the animals.***

Travel through the tunnel taking in the size of this exhibit.
Feel free to share the names of the different fish with your students as you walk through this space.

Settle down in front of the big window for a while and find even more animals in the deep end of this 6 million gallon exhibit. Listen to the Georgia Aquarium staff on the microphone; they have a lot of great information to share with you. We recommend your group sit on the steps so the children are able to see.

- How many whale sharks are in this exhibit? *4, the two smaller ones are the males, and the larger ones are the females.*
- Show with your hands how big you think a whale sharks mouth is. *4ft*
- Show with your hands how big you think a whale sharks throat is. *About the size of a quarter.*
- If their throat is that small, can they eat any of these fish? *No*
- What could whale sharks eat in the ocean that is small enough to fit into their throat? *They eat krill (very small shrimp) and plankton.*
- Find an animal resting on the sand. It's not sleeping, it's just resting or waiting for fish to come clean them!
- What is a group of fish called? *A school*.

When you exit, practice swimming like a school of fish!

Welcome to the peaceful waters of the warm tropical ocean that surrounds the equator. Here we will find the wildest colors you will see all day. These animals are very good at being seen when they want to be and hiding when they don't. Let's see what we can find!

Patiently peek into the first coral reef. The garden eels that live in the sand will be peeking out at the water around them. While they hide in the sand, look for some animals that hide around the coral as well.

- Do you see the garden eels in the sand? Why do they hide there? *Protection*
- Do you see a group of fish swimming together? Do you know what a group of fish is called? *A School!*

Jellies! Feel free to take a seat in front of the large blue jelly exhibit and watch them float through the water. Jellies don't always pulse while they are in the water, sometimes they take a break and just float a while.

- What color are the jellies?
- Sea nettles are a type of jelly.
- Do you see how the jellies move by pulsing their bodies? Can you move like jelly?

Have a seat in front of the large coral reef window. This is our living coral reef habitat. Coral reef can be found around the world near the equator. Animals including corals that live here require warm, clear water to survive. Coral reefs are very special habitats in that many different types of fish live here.

- Can you find a fish that is orange? Purple? Yellow?
- There are Blacktip reef sharks in this exhibit. Can you find them? How many are there?

Aquarium Animal Flash Cards

Objective: Students will practice identifying aquatic animals they will encounter during their program.

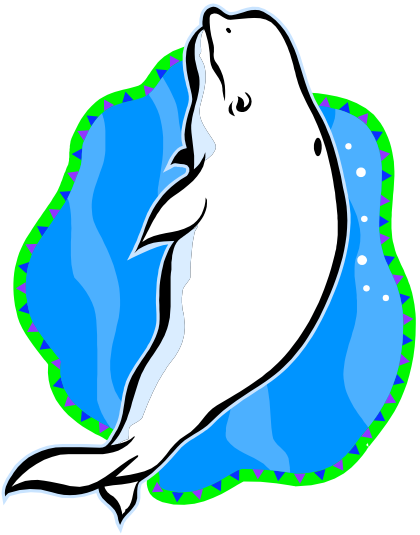
Duration: 15-20 minutes

Materials:
Aquarium Animal Flash Cards (provided)

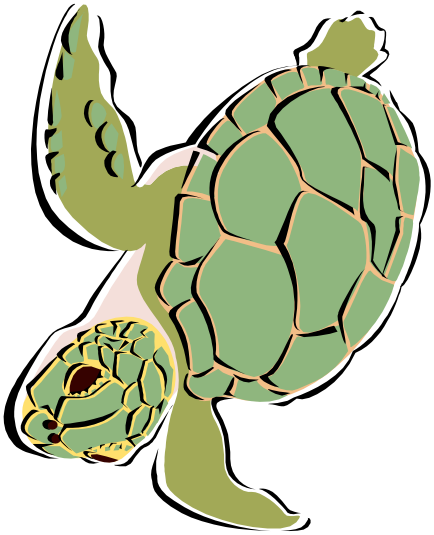
Procedure:
1. Hold up one flash card at a time and name the animal. Have the children repeat the name.
2. Alternate activity: Memory Game
   - Make a second copy of the cards and place them face down on a table.
   - Have a child flip up one card and then another card to see if they match; if they do, that child turns over a second pair of cards.

WHALE SHARK	HAMMERHEAD SHARK
OCTOPUS	ALLIGATOR

BELUGA WHALE

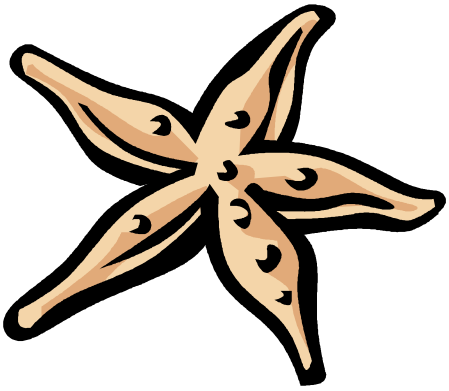


SEA TURTLE



JELLY

SEA STAR



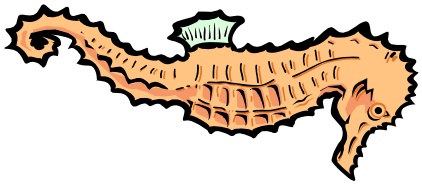
CLOWNFISH

STINGRAY

FROG

GARIBALDI FISH

(DEEPO!)

SEAHORSE 	OTTER 

Deepo Placemats

Objective: Students will review the highlights of their trip and make a memento featuring Deepo and their favorite animals.

Duration: 30 minutes

Materials:

Deepo picture (below)
Markers or Crayons
Blue and white construction paper
Green tissue paper
Glue stick
Contact Paper or Laminate

Instructions:

1. Make copies of Deepo.
2. Have the students color Deepo with markers or crayons.
3. Glue Deepo to the center of the blue construction paper.
4. Tear the tissue paper into strips and glue on the blue construction paper.
5. Ask your students what their favorite animal was that they saw at the aquarium. Why?
6. Have the students draw their favorite aquarium animal and its habitat on the white construction paper.
7. Glue the back of the blue paper to the back of the white paper.
8. Cover both sides of the construction paper with contact paper or laminate.
9. Discuss their favorite animals. Was the animal big or small? What color was it?
10. Ask the students how their animals move, and have them move like that animal.