

Great Ocean Adventure

Overview

Activity Synopsis

Participate in a scavenger hunt while exploring the Aquarium's Great Ocean Tank (counting, colors, shapes and movements).

Time Frame

20 minutes

Objectives

The learner will be able to:

- Count animals
- Recognize colors
- Recognize shapes
- Use body motions to act out animals
- Explore using their eyes and ears

Standards

South Carolina Early Learning Standards

APL-1, APL-2, APL-3, APL-4, APL-8

ESD-2, ESD-6

HPD-2, HPD-4

LDC-1, LDC-2, LDC-3, LDC-4, LDC-6, LDC-7, LDC-10, LDC-11, LDC-13, LDC-15

MTE-1, MTE-2, MTE-3, MTE-4, MTE-5

CD-4, CD-5, CD-6, CD-10, CD-11

Background

The Aquarium's Great Ocean Tank is the largest exhibit holding 385,000 gallons of saltwater. It is the deepest tank in North America at 42 feet deep. It is home to different habitats, making it a wonderful home to many fish. The large window view into the exhibit (seen during this activity) shows both the rocky reef habitat and the open ocean habitat (behind rocky reef). Small fish like to hide in the rocky reef, while larger fish circle the open ocean. All together the exhibit houses over 500 fish representing over 40 different species. All the fish are native to South Carolina and can be found offshore in the Atlantic Ocean. The Great Ocean tank is also home to one Loggerhead sea turtle, *Caretta*. She can often be seen taking naps at the bottom of the large window view.

Here is more information about the animals that call this exhibit home:

Fish

Fish are animals that live in water with scales covering their body, gills to help them breathe underwater and fins to help them swim. They have two eyes to help them see. Most fish have eyes in the front of their head (helps them see in front of them). Some fish have eyes on the top of their head (to see above them). While some fish have eyes on the bottom of their head to see below them. Fish also have very different tail fin shapes. The tail fin is called the caudal fin. The shape of the caudal fin can tell you a lot about how the animal swims and therefore where it lives. Fish with a rounded tail fin are great at maneuvering in tight spaces and can turn easily. They typically live in reef or rocky areas where they can move around with ease to find food and shelter. Fish with a forked tail fin are typically fast swimming fish. They swim in the open ocean at great speeds to chase and catch food. Fish can be all different colors for many different reasons. Sometimes fish have the perfect color to camouflage, or hide. Sometimes fish are brightly colored to attract a mate or warn predators that they are venomous. There are many different types of fish in the ocean. Eels and sharks are both fish as well. Eels are very long and skinny fish with a long fin from the top, front of their body, around their tail and to the underneath.

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Sharks are fish that have a cartilaginous skeleton (made from cartilage) instead of bone. During this activity, you will observe the fish in the Great Ocean Tank. Be sure to look at the placement of their eyes, the shape of their tail and their coloration.

A few fish species highlights from the Great Ocean Tank:

- Porcupine fish – A large species of spiny puffer. When threatened, they will swallow water in order to puff up and make their spines stick out. This keeps predators from being able to eat them. Once the danger has passed, they release the water. Porcupine fish can usually be seen swimming near the top of the reef.
- Queen triggerfish – Beautifully colored fish with a very distinct body shape. Triggerfish live in tropical and subtropical waters. They eat sponges, corals, jellies and algae. Their small mouths are perfect to eating small prey. They can be seen swimming in the reef habitat in the exhibit.
- Porkfish – This fish are very noticeable by their yellow body color and black stripes on their face. They are named porkfish because they make sounds underwater that sound like pigs grunting. Porkfish are cleaner fish and will clean old scales and dirt off other fish. You may see this happen in front of the reef habitat in the exhibit. They stay close to the reef because they are small.
- Barracuda – The barracuda is a long, cylinder fish that can grow 5 feet in size. They are very curious and often find divers to watch. Barracuda are also very fast swimmers and can reach burst of speeds up to almost 30 miles per hour. You will usually find them swimming in the open ocean part of the exhibit near the top.
- Brown shark – Another name for a brown shark is sandbar shark. They can reach 8 feet in size. Sharks have rows and rows of teeth. As they loose a tooth, another comes up to take it's place. This happens their whole life. They need these sharp teeth for eating fish and other animals.



Sea Turtle

Sea turtles are reptiles with scaly skin and a hard shell on the top and bottom of their bodies for protection. Other characteristics that all reptiles share include laying eggs, breathing air and being cold blooded. A cold blooded animal's temperature changes with its environment. If the environment is cold, they are cold. If the environment is hot, they are hot. Most reptiles, including sea turtles prefer to be in temperatures above 60 degrees Fahrenheit. Sea turtles live in the ocean and so the water temperature is what dictates their temperature. Sea turtles have feet called flippers that are very strong for swimming. They cannot pull their flippers into their shell like other turtles. Instead they swim quickly to get away from danger. There are 7 species of sea turtles in the world. Four of those seven live off the coast of South Carolina (Loggerhead, Green, Kemp's Ridley and Leatherback). South Carolina's most common sea turtle and the state reptile is the Loggerhead sea turtle.

Information about the Loggerhead sea turtle in the Great Ocean Tank:

Caretta is the name of the Aquarium's resident Loggerhead sea turtle. She was born in 1987 and was taken from a US beach and raised as a pet. This is illegal in accordance with the Endanger Species Act. She was eventually given up as a pet and brought to the South Carolina Aquarium where she was deemed unreleasable. She is a visitor favorite and loves to swim from window to window. Keep your eye out for her during this activity. She loves to take naps in the reef habitat.



Procedure

Materials

- Computer, screen, projector
- Internet
- Great Ocean Tank Video Link <https://www.youtube.com/watch?v=ggvXiyFnE6I>
- Link to ocean waves video (optional) <https://www.youtube.com/watch?v=hAEpYWPeiOI>

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- [Scavenger Hunt](#) (for teacher)
- Paper/[Ocean Coloring Sheet](#)
- Crayons

Procedure

Prep: Log into your computer and pull up the Aquarium's Great Ocean Tank video as well as the ocean waves video. This will save time during the lesson. <https://www.youtube.com/watch?v=ggvXiyFnE6I>

1. Get a discussion going about the ocean. Ask if they've ever seen the ocean. Have they jumped in the waves? How did the water taste? What did they see? If they have never been to the ocean before, describe it to them (Big, big area with lots of water. The beach has sand and the ocean has waves that crash). You could show them this video of the ocean waves <https://www.youtube.com/watch?v=hAEpYWPeiOI>

2. Let them know that today they are going to explore the ocean while going on a scavenger hunt.

3. Show them the South Carolina Aquarium's Great Ocean Tank exhibit video. <https://www.youtube.com/watch?v=ggvXiyFnE6I> Let them just watch for a few minutes while you tell them what they are looking at (info above in background, share what's appropriate).

4. Ask them what they see. They might say water, fish, rocks, sea turtle...

5. Now, take some time to ask them questions from the scavenger hunt sheet.

- Can you see the water? What color is it?
- Find a yellow fish? How many do you see?
- How does a fish move? Show me with your body or arms.
- What shape is the big window?
- Can you see a silver fish? Is it big or small?
- Can you see a blue fish? How many do you see?
- Did you find a shark? What color is it?
- Can you see a sea turtle? Is it big or small?
- How does the sea turtle move? Show me with your body or arms.
- Find a black and white fish? How many do you see?
- Can you see a big rock? Who lives in the rock?
- Can you find a small fish? Can you find a large fish?
- Do you see a circle? Where is it?
- What is your favorite thing in the Great Ocean Tank?

6. Give each student a piece of paper and a couple crayons. Let them create their own ocean picture. The level of detail will differ between age groups and abilities. Could use the Ocean Coloring Sheet here instead of plain paper if that would be best.

Extensions

ELA Extension

Read one or more of the following books about the ocean.

"Hello World! Ocean Life" board book by Jill McDonald

"Fish!" PBS Kids Chunky Life-a-Flap book

"Guess Who Ocean Friends" by Jodie Shepherd

"The Ocean" Touch and Explore book by Nathalie Choux

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Math Extension

Ask them which animal you saw the most of. How many fish? How many sea turtles? How many divers?

STEAM Extension

Let them play with kinetic sand. If you have ocean animal molds, they can make ocean animals.

https://www.amazon.com/NATIONAL-GEOGRAPHIC-Ocean-Play-Sand/dp/B07YF4CHZT/ref=sr_1_9?dchild=1&keywords=ocean+animal+molds&qid=1614014423&sr=8-9