

SC Aquarium Public Program Worksheet

(Adapted from NAI, Certified Interpretive Guide Training workbook)

Your name: Marzio Gillis and Travis Heil

Program Title: Fish-N-Chips

Theme: The GOT is a diverse exhibit with cool animals and fun facts for all to learn.

Audience: Families of all ages

Goals: (Why are we doing this program?): Teach the Aquarium's visitors about the animals of the Great Ocean Tank in a fun and interactive way by getting them involved and playing a game.

Objectives: (Remember to include a conservation objective):

- Audience will remember at least 3 facts about the GOT or the animals of the GOT
- 60% of the guests will stay for the entire program
- At least 2-3 questions asked by the audience at the end of the program

How will you measure the objectives?

- Count how many guests are there at the start and end of the program
- When Good Catch conservation message is used, at least 5 visitors will take a brochure.
- See if anyone inquires about a sea turtle hospital tour or asks for more information about helping sea turtles if category was used.
- By the audience's reaction: do they smile, laugh, answer questions asked, etc.?

Materials Needed:

Fish-N-Chips board

Fish-N-Chips chips

5 Category cards

Dive show bin with props (educator's choice)

PROGRAM OUTLINE

Introduction: Welcome the audience, introduce yourself and get to know the audience (ask where they are from). Explain that we are going to play a game called Fish-N-Chips, the Aquarium's version of PLINKO, in order to learn about the Great Ocean Tank and the animals in it. Introduce the diver as the expert in the tank, our "fact checker." Maybe ask the diver a question about what they do as a diver in the GOT in order to encourage a flow between you, the diver and the audience.

Next, go over the rules of Fish-N-Chips (contestant/s will be needed to drop chips into board, the chips will land in a certain category, a question pertaining to the category will be asked, the contestant/s and audience will be able to guess the answer and then the diver will give the answer as well as explain it). Also introduce the 5 categories on the Fish-N-Chips board:

- 1) **Eew Gross** – gross facts about the GOT and its animals
- 2) **That's Cool** – cool facts about the GOT and its animals
- 3) **Relationships** – the animals of the GOT do interact and some of them in very strange ways
- 4) **GOT Myths** – the things that most people think are true
- 5) **Leave No Trace** – Ask what “leave no trace” means and that this is the most important category; it's how we can help our oceans and its animals

Body (subthemes): Bring up 4-5 different contestants one at a time and have each drop one chip. As the contestants come up to the front, ask them their name/s and where they are from. The subthemes of this show will be ever changing depending on which category the contestant lands on (see categories and questions in detail below). The main thing to remember is to explain the answer after each question. This is a great opportunity to get the diver more involved. The diver can give the answer and explain it while you supplement the answer where it's needed. For example:

Educator – “You landed on the category, Relationships. Here is your question. True or False: The Porkfish cleans the other fish and the turtle. Would you say that is true or is it false? (Volunteer gives his/her guess) How about you guys? How many of you think that is a true statement? And how many of you think it's false? Well, (insert divers name), you are our expert, I bet you know the answer...”

Diver – “That is a true! The porkfish is known as a cleaner fish. They eat dead skin and parasites from other fish and turtles and that helps them stay clean and healthy.”

Educator – “That's right! This little, yellow fish helps keep the animals in the GOT nice and clean.”

Keep repeating the chip dropping and question asking until enough volunteers have come up. It should last about 15 minutes total. After each volunteer's turn, let them give the diver a “High-5”. Ask the audience if they have any questions for the diver. (Allow for only 5 minutes for questions for a total of 20 minutes for the entire show.) Have the audience give the diver a huge round of applause for teaching everyone about the Great Ocean Tank.

Conclusion: Thank the diver and inform the audience about the next show. Let the guests know that you will be staying for questions after the show, and thank them for supporting the SC Aquarium!

Fish-N-Chips Answers and Explanations:

Eew Gross:

True or False - The fish and sea turtle in the GOT all together produce enough waste (poop) to fill 7 milk gallon jugs every day.

True – The fish and sea turtle of the GOT get fed about 60 lbs. of food each day. What goes in...must come out, pretty much anyway. When you convert that into gallons it comes out to be **7 gallon milk jugs every day!!** (Great opportunity to use the gallon of milk container to visualize the amount)

True or False - The mucus secreted by the green moray eel helps it escapes predators.

False – Many fish have a mucoid coating. It's primarily used as protection from disease and parasites.

True or False - Sharks can regurgitate (vomit) their stomach.

True– Often referred to as stomach eversion. Sharks will do this whenever they swallow something they can't digest (pollution), remove parasites from their stomach lining, or as a response to being stressed out. Usually they are able to swallow it back down. There are some animals who would even attempt to eat some the regurgitated contents.

-

True or False - The seafoam at the ocean is just bubbles created by the waves.

False – Seafoam is comprised of dissolved salts, proteins, fats, dead algae, detritus and other pollutants, and a bunch of other bits and pieces of organic and artificial matter. Think twice before playing in it at the beach! The chemical filter we use on the GOT is also known as a protein skimmer and produces the same seafoam that you see at the beach. It is caused by injecting ozone into the water.

That's Cool!

True or False - The GOT is the deepest tank in North America.

True – We don't have the largest tank, but we do have the deepest tank in North America at 42 feet deep! Due to the depth, we are able to show three different habitats and viewing windows, exhibiting a shallow reef, deep reef and open-ocean.

True or False - We have one bottlenose dolphin in the GOT.

False – South Carolina is the only state with legislation prohibiting cetaceans in captivity. Even though we don't have them in the aquarium, we have approximately 100 bottlenose dolphins that live year-round right outside our building in the Charleston Harbor and roughly 300 dolphins that pass through during the spring and summer. If you are patient enough, you might see one surface!

True or False - The divers are not paid to be here while they care for 550 animals in the GOT!

True – We have around 75 divers that are all volunteers and spend at least 8 hours here each time they come in. Have the diver describe what it would be like to spend a day in his/her flippers.

True or False - Sharks have bones in their body

False – Sharks are considered cartilaginous fish because the skeletal system is comprised completely of calcified cartilage. Their teeth are made out of dentin like ours, which is why they fossilize.

True or False—Sharks have swim bladders like other fish for buoyancy

False—Instead of a swim bladder filled with gas, sharks have a large fatty liver filled with oil to maintain their balance as they're swimming in the water.

Relationships

True or False - If Caretta could steal all of the sharks' food, she would.

True – Anytime food is thrown into the tank, Caretta is not far behind. She will eat anything she can get her beak on. We used to feed her at the same time as we fed the sharks, but she would actually steal the sharks' food. Now we separate them to make sure everyone gets the appropriate amount of food. Show the audience the white crate that we use to feed Caretta. We refer to it as her “turtle time out box.” 😊

True or False - The Porkfish cleans the other fish and the turtle.

True – The porkfish is known as a cleaner fish. It eats dead skin and parasites from other fish and turtles. This helps these animals stay clean and healthy. Point out a porkfish in the tank. Is it following another fish or even Caretta?

True or False - Red Drums got their name because their scales were used in the production of making drums.

False – Red Drums are named after the ability of the males to contract the muscles to vibrate their swim bladder while creating a drumming sound to attract the females.

True or False - We never would use the water from the harbor for our tanks because it's dirty.

False – The water in the harbor is brackish, a mixture of salt and fresh water. When we pump the water into the building during high tide it usually contains detritus, pluff mud, algae and organic material. All that is filtered out and fills the GOT with 385,000 gallons of water.

GOT Myths

True or False - The animals constantly eat their “tankmates”.

False – If we did not offer enough food for the animals in the tank, many of them would try to eat their tank-mates. In our attempt at giving guests an idea of what the reefs look like just off the coast, we have to have larger predatory fish in with smaller prey fish. By offering them plenty of food, we can make sure that they do not eat their “tankmates”.

True or False - Sharks attack the divers.

False – Divers don't have to worry about shark attacks because sharks are not nearly as dangerous as you may think. In addition, we take a lot of safety precautions and our sharks are well fed. They tend to leave their tank-mates and the divers alone.

True or False - We have a tuna in the tank.

False – Although some of those large fish look like tuna, they are a large species of Jack. Our tank is not large enough for a tuna to live in. They need a lot of room to swim fast for long distances. Our tank is only 50 feet wide at its widest point.

True or False– The guests should be concerned about the sea turtle not moving in the tank.

False - Sea turtle lungs are adapted to allow fast exchange of oxygen and to prevent gasses from being trapped during deep dives. Transporting oxygen to their body tissue by blood is more efficient. Because of this, sea turtles can rest/sleep underwater for several hours. Caretta can nap for up to 4 hours at a time!

Leave No Trace

True or False - Sea turtles are great problem solvers. They can easily tell the difference between a plastic bag and a jellyfish.

False – Sea turtles are not good at problem solving. Loggerhead sea turtles have a brain about the size of a walnut. If they see a plastic bag floating in the water, they will think it is a jellyfish and eat it. The plastic will cause digestive problems and could be fatal to the sea turtle. Please remember to pick up after yourself. Keep trash out of the ocean!

True or False - Over 100 million sharks are killed by people every year.

True – Scientists estimate that over 100 million sharks are killed by people every year. Only around 10 people in the world per year are killed by sharks and this is usually due to mistaken identity; they do not view people as food. Sharks play an important role in keeping the animals in the ocean in balance as apex consumers.

True or False - Greater Amberjack is considered an underutilized fish.

True – In SC, Greater Amberjack is in season from May 1-March 31. The month of April is their spawning season. Commercially, it's caught using electric and hydraulic reels. Recreationally, it's often caught by hook-and-line. All of these methods are considered responsible harvests. Greater Amberjack is a white and flaky fish with a sweet flavor. Mmm...

True or False - We can all do a little bit to contribute to the NOAA Marine Debris Program. (National Oceanic and Atmospheric Administration)

True – NOAA's program goal is to map, identify, measure impacts of, remove, and prevent marine debris the fight against marine debris begins at home. There are many things you can do yourself that can help out, like reducing the amount of trash produced, eliminating single use products, using reusable products, recycling as much as you can, and joining local efforts to pick up trash.

True or False: Knocking down sand castles and filling in holes at the beach when you're done playing helps baby sea turtles.

True – These are just some of the obstacles left by us that could harm baby sea turtles as they make their journey to the sea. Turning off lights and not leaving any pollution around would also make a difference. Nesting occurs from May 1 to October 1.