

SC Aquarium Public Program Worksheet

Program Title: Fish-N-Chips

PROGRAM OUTLINE

The Educator will select volunteers to place a chip on the board. The Educator will read a True/False statement from the column selected. The diver will give the correct answer. A change from year's past is that there is a conservation question in each column to help with a seamless conclusion. Anticipate receiving 3-6 questions each show. Diver answers are below in red.

True or False - The mucus secreted by the green moray eel is a sign of illness.

False –Just the opposite! This mucus coating helps to protect the eel from getting sick. Many fish have a mucoid coating. Has anyone taken a fish off of a line before and felt this? It's primarily used as protection from disease and parasites.

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, equaling about 55 lbs. of waste each day. 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).

Educator: Another special thank you to the divers that clean the tank and assist the filtration system!

True or False – Sharks have livers that take up 90% of their body cavity.

True- Bony fish like this red drum (or point out another bony fish) have swim bladders or air sacs that help to control their buoyancy- how high or low they are in the water. Sharks' livers store oils which are less dense than water. Think about the oil bubbles that float to the top of your salad dressing container. Sharks' livers help them to stay higher in the water. As a diver, I have a BCD or buoyancy control device. I'm able to add air to this vest to float to the top and let it out when I need to sink.

True or False – Sea turtles mistake plastic bags for food items like jellyfish. Many patients have been treated in the Zucker Family Sea Turtle Hospital for plastic ingestion.

True –. One sea turtle patient named Midway passed *–that's right we mean pooped-* 59 different pieces of plastic, during the first few days, in the hospital.

Educator: When plastic enters the food web it's not limited to sea turtles, but also impacts our food chain. The good news is that it's much easier to prevent plastic waste from entering our waterways by refusing to use it in the first place than by trying to clean it up after the fact. Join me in refusing single use plastic like bags and straws. Thank you all so much for joining us for Fish N' Chips. Be sure to join us for the Enrichment show at 2pm. Enjoy your day at the South Carolina Aquarium!

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. Thanks to the depth, we are able to show three different habitats and viewing windows, including shallow water, reef and open ocean.

True or False – We're going to add a bottlenose dolphin to 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 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. We also partner with NOAA to understand how the bottlenose dolphins use the harbor. When you head out today, ask an educator outside if they've seen one recently.

True or False – Being a scuba diver is the highest paid position at the SC Aquarium.

False – All 75 divers are volunteers and spend at donate at least 8 hours each time they work. Have diver describe what it would be like to spend a day in his/her flippers/ favorite part of the job.

True or False— What you're doing right now is helping the animals.

True- That's true because what you're doing right now is learning! Our mission is to connect people with water, wildlife, and wild places.

Educator: I encourage you to share the neat things that you've learned today with your family and friends. There's always more to learn- join us to learn even more at our next show- the 2pm enrichment show. Let's give our diver another hand! Thanks so much for spending the day with us at the SC Aquarium!

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.

True or False - Red Drums got their name because their scales were used in the production of musical 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 – Divers are constantly worried about the sharks biting or eating them.

False- Despite what we see in the movies, humans are not on sharks' menus, and we're not worried about them in this tank. Sharks will use all of their senses to differentiate a prey item from something that is not a prey item. Sharks like to eat lots of fish, and here we feed them salmon and mackerel.

Educator: If you're still concerned about sharks, there are a few things that you can do to limit your interactions with them. For instance, you shouldn't swim in areas with fishermen- these heavily baited areas are bringing small fish in which are also bringing larger fish like sharks in.

True or False – All fish grow very quickly and have many babies.

False- This was a tough one! Some fish take a very long time to mature. Some fish like the orange roughy take over 20 years to mature!

Educator: For everyone that's been drooling during this show, don't be embarrassed- many of us that work at the aquarium are fish eaters too. However, we make sure that our *relationship* with our food is a sustainable one. We have over 120 Good Catch partner restaurants in the area- look for the infinity fish symbol on their menu. These partners make sure that they are harvesting fish without destroying habitats and selecting fish from healthy populations. Thanks again for joining us for the 1:30pm dive show. Head up to our _____ exhibit at 2pm for the Animal Enrichment Show. Let's give our diver one more round of applause!

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

False – The animals in this tank are well-fed. Through varied feeding methods, we can make sure that all 550 animals receive food that's meant for them. These feeding methods involve target feeding the sharks, ushering the sea turtle into a separate area, broadcast feeding and target feeding the larger,

schooling fish, and delivering food to the smaller fish that hide in the rocky reef by using a chum bucket. Creating three very different habitats (deep ocean, shallow rocky reef, and deep rocky reef) also allows these animals to spread out and find shelter.

Educator: Now we can't say that we've never had a fish "go missing," but because of the habitat design and feeding schedule, it doesn't happen very often.

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 Jacks. Our tank is not large enough for a tuna to live in. They need lots 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 tanks.

False - Sea turtles 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. Thanks to this "flow-through" respiratory system, sea turtles can also rest underwater for several hours.

Final Question Option:

True or False- The South Carolina Aquarium is a non-profit organization.

True- SCA is a non-profit organization which means that your ticket fee goes right back into helping care for animals on exhibit and patients in the sea turtle hospital.

Educator: That's right. We're not a government-run facility. In fact, government funding accounts for less than 1 % of our budget. Now, in addition to caring of our animals and keeping the lights on, your ticket fee also helps us share these wonders with our community through open access events and free school programs for those in need. Thank you for helping us to connect others with the world of water, wildlife, and wild places. A big thank you also to our volunteer diver for joining us today to learn more about the Great Ocean Tank! Be sure to join us _____ at 2pm for the Enrichment Show. Have a great day at the South Carolina Aquarium.

True or False - Sea turtles are great problem solvers. They can 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 like blockage and impaction (gas build up) and could be fatal to the sea turtle. Please remember to pick up after yourself. Keep trash out of the ocean!

True or False- Birds and marine mammals can easily untangle themselves from fishing line.

False- Although these animals are intelligent, they're missing a few key things- thumbs and hands! They have very difficult time untangling themselves from improperly disposed fishing line.

Educator: You can help birds and marine mammals out by disposing of fishing line in PVC pipe receptacles that can be found on piers and docks or even storing your tangled line in something like a tennis ball holder until you can make it back to a trash can (prop for demonstration).

True or False: Knocking down sand castles and filling in holes when you're done playing helps sea turtle hatchlings and nesting mothers.

True –Sea turtle nesting season occurs from May 1 to October 1. You can help out nesting mothers and hatchlings by taking everything home with you at the end of the beach day. Fill in holes that sea turtles could get stuck in, and knock down sandcastles that are obstacles for hatchlings.

True or False: Everyone can be a scientist.

True- Believe it or not, that's true. There are many different citizen scientist programs in the area. Through short trainings, you too can collect data that is very important for scientists.

Educator: I'm sure you're sick of hearing there's an app for that...but there's an app for that! There are apps like e-bird that help to track migrations of birds passing through your backyard. Did you know that the South Carolina Aquarium has an app as well? If you search for the South Carolina Aquarium in the app store, you'll find the Litter Free Anecdota app for free. This app will help you to keep track of trash that you pick up from the local beach, your backyard, or even your walk back to the parking deck. Scientists and policy makers can use this information to make better decisions for our community. Thank you all so much for joining us today for the 1:30pm dive show! Head up to the ____ exhibit for the 2pm Enrichment show. Let's give another round of applause for diver ____, and have a great day at the SC Aquarium!