

Honu Survivor The Green Sea Turtle Experience



Photo by Robert Shallenberger

- Grades:** 3 – 6
- Focus Question:** Since approximately 100 turtle eggs hatch per clutch why are the Green Sea Turtles endangered?
- Lesson at a Glance:** Students will participate in discussions and role-play to learn the hardships of baby Green Sea Turtles. The students will learn about the low survival rate due to natural predators and man.
- Key Concepts:** They will learn that the survival rate is extremely low. Students will learn how survival until adulthood are affected by natural predators and humans
- Objectives:** The students will be able to:
List the predators of the honu.
State how humans play a part in the turtle's endangerment.
- Time:** Two class periods.
- Materials:** paper, pencil, nametags, ropes or cones, string.
- Teacher Background:** The Hawaiian Green Sea Turtle, also known as honu, is an endangered species. In the past, humans killed them for their meat and shell. The meat was a favorite food for the Hawaiian Chiefs. The shell was used to make combs, glasses and jewelry. Shells vary in color from black to brown. The Green Sea Turtle gets it's name from the green color of it's fat. Baby turtles

weigh approximately one ounce and are about 2 inches in length. The adults grow to approximately 400 pounds and 3-4 feet in length. Juvenile turtles are carnivorous and eat primarily jellyfish. Adult turtles are omnivorous, eating mainly algae. Female green sea turtles travel, during the summer months, to the Northwest Hawaiian Islands where they lay eggs in nests. The female labors at night digging a hole to lay a clutch of approximately 100 eggs resembling rubbery Ping-Pong balls. Sixty days later the eggs begin to hatch. The baby turtles dig their way out of the sand. If the sand is too hot they don't leave the nest. Hot sand signifies day. The hatchlings wait until the sand becomes cool telling them it is night. When they emerge from the nest they start towards light. Usually it is the light reflecting off the ocean. Sometimes the turtles run towards man made lights, which is a deadly mistake. Another man-made hazard for turtles is Marine Debris, which they mistake for food or in which they become entangled. They also have natural predators, such as sea birds, sharks, carnivorous fishes and ghost crabs. Usually there are only one or two sea turtles that survive out of a clutch.

Preparation and Procedure

1. Have a discussion with students. What do they know about the Green Sea Turtle? Discuss the number of eggs that are hatched in a clutch and that only one or two turtles survive. Why are there only one or two survivors? What are the hazards of being a baby sea turtle?
2. Divide the class in half, for example if you have a class of 30 students make two teams of 15. Name one group predators and the other Baby honu. Give the students nametags, which are placed around their necks with string. The nametags will state what/who they are (example, baby honu, human, tiger sharks, carnivorous fish, ghost crab, sea birds, marine debris). You would have 15 honu, 1 tiger shark, 3 sea birds, 1 human, 3 carnivorous fish, 4 ghost crabs and 3 marine debris.
3. Set up three markers (cones or ropes) in an open area. This will cut the area into four zones. The left side is the hightide line where the nest is safe from the surf. The middle left area is the sand. The middle right is the open ocean and the right is the seaweed, which is the safe area.
4. Place the honu in the clutch in the hightide zone.
5. Place the birds and the ghost crabs in the beach zone.
6. Place the sharks, carnivorous fish and marine debris in the open ocean zone.

7. Tell the student that the birds are the only ones that can move between the beach and the ocean. The honu are to try to get to the protection of the seaweed. If a predator catches the honu they must sit down. The predators may catch as many honu as they can.
8. Teacher begins a dialogue: (To honu) "You have been in your clutch for 55 days you are almost ready to hatch. Along comes a person walking on the beach." The student with the human nametag gets to pick one honu to remove from the game both students sit down. This signifies how humans can disturb and destroy turtle nests.
9. Teacher then says, "Five days have passed, the sun has set and the sand is cool. It is time to leave the nest and head towards the ocean. I hope you are a survivor."
10. The honu may now head towards the ocean and the safety of the seaweed.
11. After they finish the dash, they will trade nametags. The honu will become the predators and the visa versa.
12. Debrief in the classroom. "How many honus survived out of each group?" "What did you learn?" "How did you feel when you were turtle/predator?" Were the birds more successful on the land or the sea? What can humans do to help? Write of their experience. Explain why the turtles are endangered.

Extension

Discussion and or research- Why are the Northwest Islands the breeding grounds of the Green Sea Turtle? Why don't the turtles nest closer to civilization? Why do the turtles leave the nest at night? What may kill green sea turtles after they are grown?