Lab: Sea Turtle Adventure Board Game

(MAKEUP VERSION)

Background:

Sea turtles are a fundamental link in marine ecosystems. They help maintain the health of seagrass beds and coral reefs that benefit commercially valuable species such as shrimp, lobster, and tuna. Sea turtles are the live representatives of a group of reptiles that have existed on Earth and traveled our seas for the last 100 million years. Turtles have major cultural significance and tourism value. Five of the seven species are found around the world, mainly in tropical and subtropical waters. The remaining two species, though, have relatively restricted ranges: Kemp's Ridley is found mainly in the Gulf of Mexico and the Flatback turtle around northern Australia and southern Papua New Guinea. Sea turtles journey between land and sea and swim thousands of ocean miles during their long lifetimes. They wait decades until they can reproduce, returning to the same beaches where they were born to lay their eggs. Females can lay hundreds of eggs in one nesting season, yet few will yield hatchlings that survive their first year of life. Beyond these significant natural challenges, sea turtles face multiple threats caused by humans, such as bycatch in commercial fishing gear, illegal trade, consumption, and climate change. (World Wildlife Fund, 2022)

Prelab Questions:

1. How long have sea turtles existed on Earth?

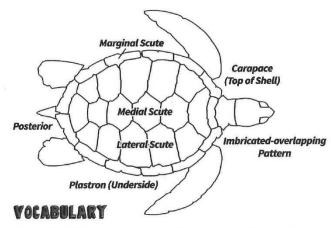
2. Which two species are NOT found worldwide?

3. Identify two threats to sea turtles.

4. Describe the difference between Marginal, Medial and Lateral scutes.

5. Where is the plastron?

6. What is the sex of the sea turtle illustrated on the right?



<u>carapace</u> - top of shell

<u>scute</u> - bony external plate

marginal - on the edge

medial - pertaining to the middle

terminal - end

lateral - pertaining to the sides

posterior - back or rear

plastron - underside of shell

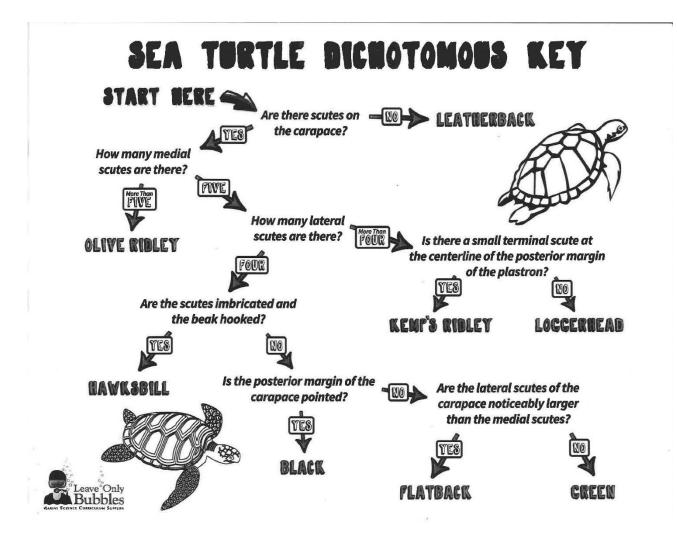
<u>imbricated</u> - to overlap in a regular pattern

beak - mouth of the turtle

The gender of a turtle can be determined by the length of the tail. The tail of a male extends beyond the carapace; a female's tail does not.

What We Did in Class:

Students played a board game about sea turtles! While you are unable to make this one up, you can still learn a bit more about sea turtles by looking at the dichotomous key below.



Analysis Questions:

- 7. Which sea turtle species has scutes on the carapace?
- 8. What is the identifying characteristic of the Olive Ridley sea turtle?
- 9. How do you differentiate between the Kemp's Ridley and Loggerhead sea turtles?
- 10. Why do you think the Hawksbill sea turtle got its name?
- 11. Have you ever seen a sea turtle? Do you remember what species it was?
- 12. What did you learn from this makeup lab?

