



Image from USFWS

My Life as a Loggerhead

5Es Lesson by Sandie Nichols

National Science Standards

Content Standard: Level 5-8

Life Science

- > Populations and ecosystems
- > Diversity and adaptations of organisms

Background

Some loggerhead turtles hatch on the east coast of the United States into the Atlantic Ocean. The baby turtles are known to swim directly into the waves and spend their juvenile years growing in the vegetative waters known as the Sargasso Sea. At some point, the turtles catch the Gulf Stream. Turtles can travel long distances at a fairly rapid rate. They have the ability to navigate using geomagnetic forces much like a compass. This has been supported by the magnetite found in the brains of loggerheads. Turtles somehow navigate their way out of the Gulf Stream to spend their later years in areas of subtropical and warm waters.

Activity

ENGAGE Teacher will locate the Gulf Stream on a map and will point out the Sargasso Sea. A brief discussion of the current flow of the Gulf Stream and highlights of the Sargasso Sea will be introduced. Students will visit the websites, www.smithsonianmag.si.edu/smithsonian/issues98/nov98/sargasso.html, and www.turtles.org/loggerd.htm, and www.kiawahturtles.com to gather information on loggerhead sea turtles in our area. Students can visit www.cccturtle.org/satl.htm to view actual migrations of several turtles.

EXPLORE Students will put themselves in the position of a newly hatched loggerhead turtle. They will hatch from Folly Beach, South Carolina and decide where they will spend their lives and how they will navigate the oceans until the time comes for them to return to Folly Beach to nest.

EXPLICATE Students will be given a map of the world and the task of determining where to go, what to eat, what to avoid, and how long to stay in certain locations. They will summarize their lifespan into 5 segments of their life. Students should list an entry for each segment of their life. Each entry should include what prey was available, any threats or predators in the area, timeline or time spent at each location. Students may use the worksheet provided.

ELABORATE Students will plot their journey on the map and list their ages at each point. Each turtle will return to nest at Folly Beach. There must be at least five diary entries.

EVALUATE Students will be assessed using the rubric included in the worksheet for a total of 25 points.