

## Ocean Expert Exchange - Educator Resources

TOPIC: ***Sea Turtle Ecology***

FEATURED EXPERT: ***Dr. Elizabeth Whitman of Florida International University (FIU)***

### TARGETED LEARNING STANDARDS:

#### ELEMENTARY SCHOOL NGSSS:

- SC.4.N.1.3:** Explain that science does not always follow a rigidly defined method ("the scientific method") but that science does involve the use of observations and empirical evidence.
- SC.4.L.17.4:** Recognize ways plants and animals, including humans, can impact the environment.

#### MIDDLE SCHOOL NGSSS:

- SC.6.N.1.5:** Recognize that science involves creativity, not just in designing experiments, but also in creating explanations that fit evidence.
- SC.7.N.1.5:** Describe the methods used in the pursuit of a scientific explanation as seen in different fields of science such as biology, geology, and physics.
- SC.7.L.17.1:** Explain and illustrate the roles of and relationships among producers, consumers, and decomposers in the process of energy transfer in a food web.
- SC.7.L.17.2:** Compare and contrast the relationships among organisms such as mutualism, predation, parasitism, competition, and commensalism.
- SC.7.L.17.3:** Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.

#### HIGH SCHOOL NGSSS:

- SC.912.N.1.1:** Define a problem based on a specific body of knowledge; pose questions, conduct systematic observations, examine books and other sources of information to see what is already known, review what is known in light of empirical evidence, plan investigations...
- SC.912.L.17.4:** Describe changes in ecosystems resulting from seasonal variations, climate change and succession.
- SC.912.L.17.6:** Compare and contrast the relationships among organisms, including predation, parasitism, competition, commensalism, and mutualism.
- SC.912.L.17.8:** Recognize the consequences of the losses of biodiversity due to catastrophic events, climate changes, human activity, and the introduction of invasive, non-native species.

### SUPPLEMENTAL RESOURCES:

- Reading, Video & Game – FIU@Home [Explore hurricane impacts on sea turtle behaviors](#) (K-12 resource)
- Resource Library - NOAA Fisheries Sea Turtles [Overview](#) & [Species Profiles](#) (K-12 resources)
- 3D Model - Digital Life [Juvenile Green Sea Turtle](#) (K-12 resource)
- 3D Model - Digital Life [Green Sea Turtle with Shark Bite](#) (K-12 resource)
- Video Short - CEI [The Turtle Cam Project at the Cape Eleuthera Institute](#) (K-12 resource)
- Video Short - OceanX [Go Inside a Turtle's World with "TurtleCam"](#) (K-12 resource)
- Database - Gumbo Limbo Nature Center [Satellite Tracking Sea Turtles](#) (K-12 resource)
- Infographics - Sea Turtle Conservancy (STC) [Florida Sea Turtle Life History Posters](#) (K-12 resource)
- Resource Library - STC [Sea Turtles, Their Habitats and Threats to Their Survival](#) (K-12 resources)
- Resource Library & Lessons - NC Aquarium [Sea Turtle Exploration](#) (K-12 resources)
- Lesson - SEE Turtles [Sea Turtle Food Webs](#) (Secondary resource)