



Sea Turtle 5th Grade Curriculum

This curriculum was designed in 2014-2016 by Drs. Maia McGuire and Ruth Francis-Floyd with assistance from Dr. Mark Flint and Jaylene Flint. The intent is to have 5th grade teachers in Florida (and elsewhere) integrate these lessons into their regular curriculum. Comments on the curriculum should be sent to Maia McGuire (mpmcg@ufl.edu).

The curriculum consists of a book, *One in a Thousand: Those Amazing Sea Turtles*, with lesson plans to accompany each of the ten chapters. Teachers are free to download the book and either print it (85 pages) or make it available to students electronically (as a pdf file).

Each lesson contains a vocabulary list for the chapter, which is suggested for use as word wall words. It is suggested that teachers review the vocabulary with students before they read each chapter. The book also contains a glossary which contains all of the vocabulary words (these are in **bold** the first time they appear in the text).

Description: Students will learn about the biology and ecology of sea turtles; they will learn ways that humans impact and can protect them.

Outline:

Chapter/Lesson 1: Sea Turtle Biology.

- Students will learn about basic sea turtle biology.

Chapter/Lesson 2: How Do Scientists Identify Turtles?

- Students will learn about the characteristics of the seven different species of sea turtles.
- Students will design their own dichotomous key to differentiate four different types of coins.
- Students will use a dichotomous key to identify a sea turtle that is assigned to them.

Chapter/Lesson 3: Sea Turtle Evolution and Anatomy.

- Students will design a timeline showing the relative timing of events in sea turtle history.
- Students will compare sea turtle and human anatomy.

Chapter/Lesson 4: How Does the Environment Affect Sea Turtle Nests?

- Students will learn how storms and temperature can affect developing sea turtle embryos

Chapter/Lesson 5: Growing Up as a Sea Turtle.

- Students will learn about the range of natural threats to sea turtles during their entire life history (egg to adult).
- Students will apply their new knowledge by writing an "autobiography" from the point of view of a sea turtle.

Chapter/Lesson 6: How Do Human Activities Affect Sea Turtles?



- Students will learn about some of the many ways that human activities have impacted sea turtle populations worldwide.

Chapter/Lesson 7: Natural Threats to Sea Turtles.

- Students will learn about natural threats to sea turtles, including climate change and harmful algal blooms.

Chapter/Lesson 8: How Do We Protect Sea Turtles?

- Students will learn about laws that protect sea turtles, and ways that countries sometimes need to take special actions to help sea turtles survive.

Chapter/Lesson 9: Turtle Tracking.

- Students will learn how scientists track sea turtles' movements in the ocean.

Chapter/Lesson 10: Helping Sick or Injured Sea Turtles.

- Students will be able to understand that sea turtles can become sick and injured and that there are ways people can help them.

Dr. Maia McGuire is the UF/IFAS Extension Florida Sea Grant agent for St Johns and Flagler Counties. Dr. Ruth Francis-Floyd is a UF/IFAS Extension veterinarian. Dr. Mark Flint is research faculty for UF/IFAS and a veterinarian. Jaylene Flint is a research scholar at the University of Queensland and a sea turtle research biologist at The Florida Aquarium

