

# Next Generation Sunshine State Standards for our Lessons

## Third Grade

### Big Idea #1: Practice of Science

**SC.3.N.1.1: Raise questions about the natural world, investigate them individually and in teams through free exploration and systematic investigations, and generate appropriate explanations based on those explorations.**

**Lesson: Welcome to the Dolphin Project**

**SC.3.N.1.4: Recognize the importance of communication among scientists.**

**Lesson: Welcome to the Dolphin Project**

**SC.3.N.1.5: Recognize that scientists question, discuss, and check each other's' evidence and explanations.**

**Lesson: Welcome to the Dolphin Project**

### Big idea #3: the role of theories, laws, hypothesis and models

**SC.3.N.3.1: Recognize that words in science can have different or more specific meanings than their use in everyday language for example, energy, cell, heat/cold, and evidence.**

**Use Vocabulary**

### Big Idea #14: Organization and development of living organisms

**SC.3.L.14.1: Describe structures in plants and their roles in food production, support, water and nutrient transport, and reproduction.**

**Lessons: Mangroves**

### Big Idea #15: Diversity and Evolution of living organisms

**SC.3.L.15.1: Classify animals into major groups (mammals, birds, reptiles, amphibians, fish, arthropods, vertebrates and invertebrates, those having live births and those which lay eggs) according to their physical characteristics and behaviors.**

**Lessons: Coastal Bottlenose Dolphin, Loggerhead Sea turtle, Wading Birds**

Big Idea #17: Interdependence

**SC.3.L.17.1: Describe how animals and plants respond to changing seasons.**

**Lessons: Manatees, Wading Birds**

## Fourth Grade

Big Idea #1: Practice of Science

**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.**

**Lesson: Welcome to the Dolphin Project**

**SC.4.N.1.6: Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.**

**Lesson: Welcome to the Dolphin Project**

Big Idea #6: Earth Structures

**SC.4.E.6.3: Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.**

**Lesson: Conservation**

**SC.4.E.6.4: Describe the basic differences between physical weathering (breaking down of rock by wind, water, ice, temperature change, and plants) and erosion (movement of rock by gravity, wind, water, and ice).**

**Lesson: Beaches**

**SC.4.E.6.5: Investigate how technology and tools help to extend the ability of humans to observe very small things and very large things.**

**Lesson: Welcome to the Dolphin Project**

Big Idea #16: Heredity and Reproduction

**SC.4.L.16.2: Explain that although characteristics of plants and animals are inherited, some characteristics can be affected by the environment.**

**Lessons: Dolphin Anatomy, Dolphin Evolution**

**SC.4.L.16.3: Recognize that animal behaviors may be shaped by heredity and learning.**

**Lessons: YOYs, Moms & Calves**

Big Idea #17: Interdependence

**SC.4.L.17.3: Trace the flow of energy from the Sun as it is transferred along the food chain through the producers to the consumers.**

**Lesson: Mangroves**

**SC.4.L.17.4: Recognize ways plants and animals, including humans, can impact the environment.**

**Lessons: Threats to Dolphins, Conservation**

## **Fifth Grade**

Big Idea #7: Earth Systems and Patterns

**SC.5.E.7.2: Recognize that the ocean is an integral part of the water cycle and is connected to all of Earth's water reservoirs via evaporation and precipitation processes.**

**Lesson: Water Properties**

**SC.5.E.7.5: Recognize that some of the weather-related differences, such as temperature and humidity, are found among different environments, such as swamps, deserts, and mountains.**

**Lesson: Mangroves**

Big Idea #14: Organization and Development of Living Organisms

**SC.5.L.14.2: Compare and contrast the function of organs and other physical structures of plants and animals, including humans, for example: some animals have skeletons for support some with internal skeletons others with exoskeletons while some plants have stems for support.**

**Lessons: Dolphin Anatomy, Stone Crabs, Mangroves**

Big Idea #15: Diversity and Evolution of Living Organisms

**SC.5.L.15.1: Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.**

**Lessons: Manatees, Wading Birds**

Big Idea #17: Interdependence

**SC.5.L.17.1: Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.**

**Lessons: Dolphin Anatomy, Feeding Techniques, Mangroves**

## Sixth Grade

Big Idea #2: Characteristics of Scientific Knowledge

**SC.6.N.2.3: Recognize that scientists who make contributions to scientific knowledge come from all kinds of backgrounds and possess varied talents, interests, and goals.**

**Lesson: Welcome to the Dolphin Project**

Big Idea #3: The Role of Theories and Laws, Hypothesis and Models

**SC.6.N.3.1: Recognize and explain that a scientific theory is a well-supported and widely accepted explanation of nature and is not simply a claim posed by an individual. Thus, the use of the term theory in science is very different than how it is used in everyday life.**

**Lesson: Dolphin Evolution**

Big Idea #6: Earth Structures

**SC.6.E.6.2: Recognize that there are a variety of different landforms on Earth's surface such as coastlines, dunes, rivers, mountains, glaciers, deltas, and lakes and relate these landforms as they apply to Florida.**

**Lesson: Beaches**

## Seventh Grade

### Big Idea #2: Characteristics of Scientific Knowledge

**SC.7.N.2.1: Identify an instance from the history of science in which scientific knowledge has changed when new evidence or new interpretations are encountered.**

#### **Lesson: Dolphin Evolution**

### Big Idea #6: Earth Structures

**SC.7.E.6.6: Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.**

#### **Lessons: Water Properties, Conservation**

### Big Idea #15: Diversity and Evolution of Living Organisms

**SC.7.L.15.1: Recognize that fossil evidence is consistent with the scientific theory of evolution that living things evolved from earlier species.**

#### **Lessons: Dolphin Anatomy, Dolphin Evolution**

**SC.7.L.15.3: Explore the scientific theory of evolution by relating how the inability of a species to adapt within a changing environment may contribute to the extinction of that species.**

#### **Lesson: Dolphin Evolution**

### Big Idea #17: Interdependence

**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.**

#### **Lesson: Mangroves**

**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.**

#### **Lessons: Threats to Dolphins, Conservation**