

## State Standards

Grade One-Big Ideas:

<http://thehappyscientist.com/grade-1/florida-sunshine-state-standards-grade-one>

### Kindergarten

Benchmark	Benchmark Description	Relates to...
SC.K.L.14.2	Recognize that some books and other media portray animals and plants with characteristics and behaviors they do not have in real life.	<a href="#">Animals of the Rainforest</a> (is any of this animated?)
SC.K.L.14.3	Observe plants and animals, describe how they are alike and how they are different in the way they look and in the things they do.	<a href="#">Animals of the Rainforest</a> , <a href="#">Discovery Channel: Planet Earth</a> , <a href="#">Rain Forest: National Geographic</a> , <a href="#">The new Explorers: 20<sup>th</sup> Century Medicine Man/ Flight for Survival</a> , <a href="#">The Secret of Life on Earth: IMAX</a> , <a href="#">Tropical Kingdom of Belize</a> , <a href="#">Butterfly exhibit</a>
SC.K.N.1.2	Make observations of the natural world and know that they are descriptors collected using the five senses.	<a href="#">Butterfly exhibit</a> , <a href="#">Dugout Canoe exhibit</a>
SC.K.N.1.4	Observe and create a visual representation of an object which includes its major features.	<a href="#">Butterfly exhibit</a> , <a href="#">Dugout Canoe exhibit</a>

### 1<sup>st</sup> grade

Benchmark	Benchmark Description	Relates to...
SC.1.L.14.1	Make observations of living things and their environment using the five senses.	<a href="#">Discovery Channel: Planet Earth</a> , <a href="#">Rain Forest: National Geographic</a> , <a href="#">The Secret of Life on Earth: IMAX</a>
SC.1.L.14.2	Identify the major parts of plants, including stem, roots, leaves, and flowers.	Movies
SC.1.L.14.3	Differentiate between living and nonliving things.	<a href="#">Dugout canoe exhibit</a> , <a href="#">movies</a>
SC.1.L.16.1	Make observations that plants and animals closely resemble their parents, but variations exist among individuals within a population.	<a href="#">Discovery Channel: Planet Earth</a> , <a href="#">Rain Forest: National Geographic</a> , <a href="#">The new Explorers: 20<sup>th</sup> Century Medicine Man/ Flight for Survival (?)</a>
SC.1.L.17.1	Through observation, recognize that all plants and animals, including humans, need the basic necessities of air, water, food, and space.	<a href="#">Animals of the Rainforest</a> , <a href="#">Discovery Channel: Planet Earth</a> , <a href="#">Rain Forest: National</a>

		Geographic, The new Explorers: 20 <sup>th</sup> Century Medicine Man/ Flight for Survival, The Secret of Life on Earth: IMAX, Tropical Kingdom of Belize
SC.1.N.1.2	Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and compare their observations with others.	Butterfly exhibit

### 2<sup>nd</sup> grade

Benchmark	Benchmark Description	Relates to...
SC.2.L.16.1	Observe and describe major stages in the life cycles of plants and animals, including beans and butterflies.	Discovery Channel: Planet Earth, Rain Forest: National Geographic
SC.2.L.17.1	Compare and contrast the basic needs that all living things, including humans, have for survival.	Animals of the Rainforest, Discovery Channel: Planet Earth, Rain Forest: National Geographic, The new Explorers: 20 <sup>th</sup> Century Medicine Man/ Flight for Survival, The Secret of Life on Earth: IMAX, Tropical Kingdom of Belize
SC.2.L.17.2	Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet its basic needs.	Animals of the Rainforest, Discovery Channel: Planet Earth, Rain Forest: National Geographic, The new Explorers: 20 <sup>th</sup> Century Medicine Man/ Flight for Survival, The Secret of Life on Earth: IMAX, Tropical Kingdom of Belize
SC.2.N.1.2	Compare the observations made by different groups using the same tools.	The new Explorers: 20 <sup>th</sup> Century Medicine Man/ Flight for Survival (?)
SC.2.N.1.5	Distinguish between empirical observation (what you see, hear, feel, smell, or taste) and ideas or inferences (what you think).	Butterfly exhibit, Dugout Canoe exhibit
SC.2.N.1.6	Explain how scientists alone or in groups are always investigating new ways to solve problems.	movies

### 3<sup>rd</sup> grade

<b>Benchmark</b>	<b>Benchmark Description</b>	<b>Relates to...</b>
SC.3.L.14.1	Describe structures in plants and their roles in food production, support, water and nutrient transport, and reproduction.	movies
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.	<a href="#">Discovery Channel: Planet Earth</a> , <a href="#">Rain Forest: National Geographic</a> , <a href="#">The new Explorers: 20<sup>th</sup> Century Medicine Man/ Flight for Survival</a> , <a href="#">Tropical Kingdom of Belize</a>
SC.3.L.17.2	Recognize that plants use energy from the Sun, air, and water to make their own food.	movies
SC.3.N.1.2	Compare the observations made by different groups using the same tools and seek reasons to explain the differences across groups.	<a href="#">The new Explorers: 20<sup>th</sup> Century Medicine Man/ Flight for Survival (?)</a>
SC.3.N.1.4	Recognize the importance of communication among scientists.	Movies
SC.3.N.1.5	Recognize that scientists question, discuss, and check each others' evidence and explanations.	Movies
SC.3.N.1.6	Infer based on observation.	Butterfly exhibit

#### 4<sup>th</sup> grade

<b>Benchmark</b>	<b>Benchmark Description</b>	<b>Relates to...</b>
SC.4.L.16.1	Identify processes of sexual reproduction in flowering plants, including pollination, fertilization (seed production), seed dispersal, and germination.	Movies
SC.4.L.17.2	Explain that animals, including humans, cannot make their own food and that when animals eat plants or other animals, the energy stored in the food source is passed to them.	Movies
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.	Movies
SC.L.17.4	Recognize ways plants and animals, including humans, can impact the environment.	Movies
SC.4.N.1.6	Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.	Exhibits

#### 5<sup>th</sup> grade

<b>Benchmark</b>	<b>Benchmark Description</b>	<b>Relates to...</b>
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	Movies

	have skeletons for support -- some with internal skeletons others with exoskeletons -- while some plants have stems for support.	
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.	Movies
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.	<a href="#">Animals of the Rainforest</a> , <a href="#">Discovery Channel: Planet Earth</a> , <a href="#">Rain Forest: National Geographic</a> , <a href="#">The new Explorers: 20<sup>th</sup> Century Medicine Man/ Flight for Survival</a> , <a href="#">The Secret of Life on Earth: IMAX</a> , <a href="#">Tropical Kingdom of Belize</a>
SC.5.N.1.2	Explain the difference between an experiment and other types of scientific investigation.	Movies, exhibits
SC.5.N.1.5	Recognize and explain that authentic scientific investigation frequently does not parallel the steps of "the scientific method."	Movies, exhibits
SC.5.N.1.6	Recognize and explain the difference between personal opinion/interpretation and verified observation.	Movies

### 6<sup>th</sup> grade

Benchmark	Benchmark Description	Relates to...
SC.6.N.1.4	Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.	Exhibits
SC.6.N.2.2	Explain that scientific knowledge is durable because it is open to change as new evidence or interpretations are encountered.	Movies
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.	Movies

### 7<sup>th</sup> grade

Benchmark	Benchmark Description	Relates to...
SC.7.L.16.4	Recognize and explore the impact of biotechnology (cloning, genetic engineering, artificial selection) on the individual, society, and the environment.	Movies
SC.7.L.17.1	Explain and illustrate the roles of and relationships among producers, consumers, and	Movies

	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.	movies
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, predations, and nesting sites.	<a href="#">Sea Turtles: Last Dance (?)</a> , <a href="#">The new Explorers: 20<sup>th</sup> Century Medicine Man/ Flight for Survival (?)</a> , <a href="#">The Secret of Life on Earth: IMAX</a> , <a href="#">Tropical Kingdom of Belize</a>

### 8<sup>th</sup> grade

Benchmark	Benchmark Description	Relates to...
SC.8.N.4.1	Explain that science is one of the processes that can be used to inform decision making at the community, state, national, and international levels.	Movies
SC.8.N.4.2	Explain how political, social, and economic concerns can affect science, and vice versa.	movies

### 9<sup>th</sup> – 12<sup>th</sup> grade

Benchmark	Benchmark Description	Relates to...
SC.912.L.14.6	Explain the significance of genetic factors, environmental factors, and pathogenic agents to health from the perspectives of both individual and public health.	Movies
SC.912.L.14.53	Discuss basic classification and characteristics of plants. Identify bryophytes, pteridophytes, gymnosperms, and angiosperms.	Movies
SC.912.L.15.7	Discuss distinguishing characteristics of vertebrate and representative invertebrate phyla, and chordate classes using typical examples.	<a href="#">Discovery Channel: Planet Earth</a>
SC.912.L.16.10	Evaluate the impact of biotechnology on the individual, society and the environment, including medical and ethical issues.	Movies
SC.912.L.17.4	Describe changes in ecosystems resulting from seasonal variations, climate change and succession.	Movies
SC.912.L.17.6	Compare and contrast the relationships among organisms, including predation, parasitism, competition, commensalism, and mutualism	Movies
SC.912.L.17.7	Characterize the biotic and abiotic components that define freshwater systems, marine systems and terrestrial systems.	Movies

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.	movies
SC.912.L.17.9	Use a food web to identify and distinguish producers, consumers, and decomposers. Explain the pathway of energy transfer through trophic levels and the reduction of available energy at successive trophic levels.	movies
SC.912.L.17.11	Evaluate the costs and benefits of renewable and nonrenewable resources, such as water, energy, fossil fuels, wildlife, and forests.	Movies
SC.912.L.17.12	Discuss the political, social, and environmental consequences of sustainable use of land.	Movies
SC.912.L.17.13	Discuss the need for adequate monitoring of environmental parameters when making policy decisions.	Movies
SC.912.L.17.15	Discuss the effects of technology on environmental quality.	movies
SC.912.L.17.16	Discuss the large-scale environmental impacts resulting from human activity, including waste spills, oil spills, runoff, greenhouse gases, ozone depletion, and surface and groundwater pollution.	Movies
SC.912.L.17.17	Assess the effectiveness of innovative methods of protecting the environment.	Movies
SC.912.L.17.18	Describe how human population size and resource use relate to environmental quality.	Movies
SC.912.L.17.19	Describe how different natural resources are produced and how their rates of use and renewal limit availability.	Movies
SC.912.L.17.20	Predict the impact of individuals on environmental systems and examine how human lifestyles affect sustainability.	Movies
SC.912.N.1.5	Describe and provide examples of how similar investigations conducted in many parts of the world result in the same outcome.	Movies
SC.912.N.1.6	Describe how scientific inferences are drawn from scientific observations and provide examples from the content being studied.	Movies
SC.912.N.2.5	Describe instances in which scientists' varied backgrounds, talents, interests, and goals influence the inferences and thus the explanations that they make about observations of natural phenomena and describe that competing interpretations (explanations) of	Movies, suitcase scientists

	scientists are a strength of science as they are a source of new, testable ideas that have the potential to add new evidence to support one or another of the explanations.	
SC.912.N.4.1	Explain how scientific knowledge and reasoning provide an empirically-based perspective to inform society's decision making.	Movies
SC.912.N.4.2	Weigh the merits of alternative strategies for solving a specific societal problem by comparing a number of different costs and benefits, such as human, economic, and environmental.	Movies