

We're the Producers!
Grades 3-8

Standards at a Glance	
Next Generation Sunshine State Standards for Science	SC.3.L.14.1, SC.3.L.17.2, SC.4.L.17.2, SC.4.L.17.3, SC.6.L.14.1, SC.6.L.14.3, SC.7.L.17.1, SC.8.L.18.1, SC.8.L.18.2, SC.8.L.18.3, SC.3.N.1.1, SC.3.N.1.3, SC.3.N.1.7, SC.3.N.3.2, SC.3.N.3.3, SC.4.N.1.1, SC.4.N.1.3, SC.4.N.2.1, SC.5.N.1.5, SC.6.N.3.4, SC.7.N.3.2, SC.3.P.10.2, SC.3.P.10.4, SC.4.P.10.2, SC.5.P.8.4, SC.5.P.10.2, SC.7.P.10.2, SC.8.P.8.5, SC.8.P.8.7, SC.3.E.5.2
Computer Science – Florida Standards for Science	N/A
English Language Arts –Florida’s B.E.S.T. Standards	ELA.4.V.1.1, ELA.5.V.1.1, ELA.6.V.1.1, ELA.7.V.1.1
Mathematics – Florida’s B.E.S.T. Standards	MA.7.NSO.1, MA.8.NSO.1.4, MA.8.NSO.1.6, MA.7.AR.1.2
Next Generation Sunshine State Standards – Social Studies	N/A

Standards Highlighted	
Next Generation Sunshine State Standards for Science	
Life Science	
SC.3.L.14.1	Describe structures in plants and their roles in food production, support, water and nutrient transport, and reproduction.
SC.3.L.17.2	Recognize that plants use energy from the Sun, air, and water to make their own food.
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.
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.
SC.6.L.14.1	Describe and identify patterns in the hierarchical organization of organisms from atoms to molecules and cells to tissues to organs to organ systems to organisms.
SC.6.L.14.3	Recognize and explore how cells of all organisms undergo similar processes to maintain homeostasis, including extracting energy from food, getting rid of waste, and reproducing.

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.8.L.18.1	Describe and investigate the process of photosynthesis, such as the roles of light, carbon dioxide, water and chlorophyll; production of food; release of oxygen.
<u>SC.8.L.18.2</u>	Describe and investigate how cellular respiration breaks down food to provide energy and releases carbon dioxide.
SC.8.L.18.3	Construct a scientific model of the carbon cycle to show how matter and energy are continuously transferred within and between organisms and their physical environment.
Nature 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.
SC.3.N.1.3	Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.
SC.3.N.1.7	Explain that empirical evidence is information, such as observations or measurements, that is used to help validate explanations of natural phenomena.
SC.3.N.3.2	Recognize that scientists use models to help understand and explain how things work.
SC.3.N.3.3	Recognize that all models are approximations of natural phenomena; as such, they do not perfectly account for all observations.
SC.4.N.1.1	Raise questions about the natural world, use appropriate reference materials that support understanding to obtain information (identifying the source), conduct both individual and team investigations through free exploration and systematic investigations, and generate appropriate explanations based on those explorations.
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.N.2.1	Explain that science focuses solely on the natural world.
SC.5.N.1.5	Recognize and explain that authentic scientific investigation frequently does not parallel the steps of “the scientific method.”
SC.6.N.3.4	Identify the role of models in the context of the sixth grade science benchmarks.
SC.7.N.3.2	Identify the benefits and limitations of the use of scientific models.
Physical Science	
SC.3.P.10.2	Recognize that energy has the ability to cause motion or create change.
SC.3.P.10.4	Demonstrate that light can be reflected, refracted, and absorbed.

SC.4.P.10.2	Investigate and describe that energy has the ability to cause motion or create change.
SC.5.P.8.4	Explore the scientific theory of atoms (also called atomic theory) by recognizing that all matter is composed of parts that are too small to be seen without magnification.
SC.5.P.10.2	Investigate and explain that energy has the ability to cause motion or create change.
SC.7.P.10.2	Observe and explain that light can be reflected, refracted, and/or absorbed.
SC.8.P.8.5	Recognize that there are a finite number of elements and that their atoms combine in a multitude of ways to produce compounds that make up all of the living and nonliving things that we encounter.
SC.8.P.8.7	Explore the scientific theory of atoms (also known as atomic theory) by recognizing that atoms are the smallest unit of an element and are composed of sub-atomic particles (electrons surrounding a nucleus containing protons and neutrons).
Earth and Space Science	
SC.3.E.5.2	Identify the Sun as a star that emits energy; some of it in the form of light.
English Language Arts -Florida's B.E.S.T. Standards	
Vocabulary	
ELA.4.V.1.1 ELA.5.V.1.1	Use grade-level academic vocabulary appropriately in speaking and writing.
ELA.6.V.1.1 ELA.7.V.1.1	Integrate academic vocabulary appropriate to grade level in speaking and writing.
Mathematics – Florida's B.E.S.T. Standards	
Number Sense and Operations	
MA.7.NSO.1	Rewrite numbers in equivalent forms.
MA.8.NSO.1.4	Express numbers in scientific notation to represent and approximate very large or very small quantities. Determine how many times larger or smaller one number is compared to a second number.
MA.8.NSO.1.6	Solve real-world problems involving operations with numbers expressed in scientific notation.
Algebraic Reasoning	
MA.7.AR.1.2	Determine whether two linear expressions are equivalent.