

Revision Type	2011-2012 LT	2011-2012 LT Description	2010-2011 LT	2010-2011 LT Description	Resources
5	SC.01.12.01.03	Offspring have characteristics that are similar but not exactly like their parent's characteristics (CAS: 1.2.1)	SC.03.04.01.01	Compares and contrasts the physical appearance of individuals in the same population	Plants & Animals (FOSS Kit)
5	SC.01.12.02.03	An organism is a living thing that has physical characteristics to help it survive (CAS: 1.2.2)	SC.03.05.01.01	Compares and contrasts the general structures that are responsible for growth, survival and reproduction in plants and animals	Plants & Animals (FOSS Kit)
4	SC.01.21.01.03	Changes in speed and direction of motion are caused by forces such as pushes and pull (CAS: 2.1.1)	SC.01.10.01.01	Describes how objects can be moved by pushing or pulling	Air & Weather (FOSS Kit)
1	SC.01.22.01.03	Organisms depend on their habitat's nonliving parts to satisfy their needs (CAS: 2.2.1)			Plants & Animals (FOSS Kit)
5	SC.01.22.02.03	Each plant or animal has different structures or behaviors that serve different functions (CAS: 2.2.2)	SC.02.05.01.01	Describes the relationship between the major structures of plants and their functions	Plants & Animals (FOSS Kit)
4	SC.01.23.01.03	Weather and the changing seasons impact the environment and organisms such as humans, plant and other animals (CAS: 2.3.1)	SC.01.01.02.01	Describes the typical weather patterns of the four seasons and how they impacts humans	Air & Weather (FOSS Kit)
5	SC.01.42.01.03	All living things share similar characteristics, but they also have differences that can be described and classified (CAS: 4.2.1)	SC.03.04.01.01	Compares and contrasts the physical appearance of individuals in the same population	Plants & Animals* (FOSS Kit)
5	SC.01.42.03.03	There is an interaction and interdependence between and among living and nonliving components of systems (CAS: 4.2.3)	SC.04.06.02.01	Analyzes the interrelationships between organisms and components of an ecosystem	Plants & Animals* (FOSS Kit)
1	SC.01.52.01.03	All organisms have structures and systems with separate functions (CAS: 5.2.1)			Plants & Animals* (FOSS Kit)

Revision Type	2011-2012 LT	2011-2012 LT Description	2010-2011 LT	2010-2011 LT Description	Resources
5	SC.02.12.01.03	Offspring have characteristics that are similar but not exactly like their parent's characteristics (CAS: 1.2.1)	SC.03.04.01.01	Compares and contrasts the physical appearance of individuals in the same population	Insects & Plants (FOSS Kit)
4	SC.02.12.02.03	An organism is a living thing that has physical characteristics to help it survive (CAS: 1.2.2)	SC.02.07.02.01	Classifies organisms based on characteristics	Insects & Plants (FOSS Kit)
5	SC.02.13.01.03	Earth's materials can be compared and classified based on their properties (CAS: 1.3.1)	SC.02.08.01.02	Describes various ways to classify objects based on physical properties	Pebbles, Sand & Silt (FOSS Kit)
1	SC.02.22.01.03	Organisms depend on their habitat's nonliving parts to satisfy their needs (CAS: 2.2.1)			Insects & Plants (FOSS Kit)
5	SC.02.22.02.03	Each plant or animal has different structures or behaviors that serve different functions (CAS: 2.2.2)	SC.02.05.01.01	Describes the relationship between the major structures of plants and their functions	Insects & Plants (FOSS Kit)
5	SC.02.32.01.03	The duration and timing of life cycle events such as reproduction and longevity vary across organisms and species (CAS: 3.2.1)	SC.02.05.02.01	Compares and contrasts the life cycle stages of various organisms	Insects & Plants* (FOSS Kit)
5	SC.02.33.01.03	Earth's materials can be broken down and/or combined into different materials such as rocks, minerals, rock cycle, formation of soil, and sand - some of which are usable resources for human activity (CAS: 3.3.1)	SC.02.08.01.02	Describes various ways to classify objects based on physical properties	Pebbles, Sand & Silt (FOSS Kit)
5	SC.02.41.01.03	Energy comes in many forms such as light, heat, sound, magnetic, chemical, and electrical (CAS: 4.1.1)	SC.05.09.01.01	Describes the different types of energy and their common sources	Magnets (DSM)
5	SC.02.42.03.03	There is an interaction and interdependence between and among living and nonliving components of systems (CAS: 4.2.3)	SC.04.06.02.01	Analyzes the interrelationships between organisms and components of an ecosystem	Insects & Plants* (FOSS Kit)

Revision Type	2011-2012 LT	2011-2012 LT Description	2010-2011 LT	2010-2011 LT Description	Resources
5	SC.02.51.01.03	Mixtures of matter can be separated regardless of how they were created; all weight and mass of the mixture are the same as the sum of the weight and mass of the parts (CAS: 5.1.1)	SC.03.08.02.01	Recognizes that changes in the physical state of matter do not change the composition of the substance	Magnets (DSM)*
5	SC.02.52.01.03	All organisms have structures and systems with separate functions (CAS: 5.2.1)	SC.03.05.01.01	Compares and contrasts the general structures that are responsible for growth, survival and reproduction in plants and animals	Insects & Plants* (FOSS Kit)
4	SC.02.71.01.03	Mixtures of substances can be separated based on their properties such as solubility, boiling points, magnetic properties and densities (CAS: 7.1.1)	SC.05.08.01.02	Predict how mass, weight, and volume affect density	Magnets (DSM)*
1	SC.02.81.02.03	There are different forms of energy and those forms of energy can be changed from one to another - but total energy is conserved (CAS: 8.1.2)			Magnets (DSM)*

Revision Type	2011-2012 LT	2011-2012 LT Description	2010-2011 LT	2010-2011 LT Description	Resources
4	SC.03.31.01.03	Matter exists in different states such as solids, liquids, and gases and can change from one state to another by heating and cooling (CAS: 3.1.1)	SC.03.08.01.01	Compares and contrasts the physical properties of each physical state of matter	States of Matter (DSM)
5	SC.03.32.01.03	The duration and timing of life cycle events such as reproduction and longevity vary across organisms and species (CAS: 3.2.1)	SC.02.05.02.01	Compares and contrasts the life cycle stages of various organisms	Structures of Life (FOSS Kit)
5	SC.03.42.01.03	All living things share similar characteristics, but they also have differences that can be described and classified (CAS: 4.2.1)	SC.03.04.01.01	Compares and contrasts the physical appearance of individuals in the same population	Structures of Life (FOSS Kit)
4	SC.03.42.02.03	Comparing fossils to each other or to living organisms reveals features of prehistoric environments and provides information about organisms today (CAS: 4.2.2)	SC.04.07.01.02	Forms conclusions based on fossil evidence about prehistoric environments and organisms	Structures of Life (FOSS Kit)
5	SC.03.42.03.03	There is an interaction and interdependence between and among living and nonliving components of systems (CAS: 4.2.3)	SC.04.06.02.01	Analyzes the interrelationships between organisms and components of an ecosystem	Structures of Life (FOSS Kit)
5	SC.03.52.01.03	All organisms have structures and systems with separate functions (CAS: 5.2.1)	SC.03.05.01.01	Compares and contrasts the general structures that are responsible for growth, survival and reproduction in plants and animals	Structures of Life (FOSS Kit)

Revision Type	2011-2012 LT	2011-2012 LT Description	2010-2011 LT	2010-2011 LT Description	Resources
5	SC.04.42.01.03	All living things share similar characteristics, but they also have differences that can be described and classified (CAS: 4.2.1)	SC.03.04.01.01	Compares and contrasts the physical appearance of individuals in the same population	Food Chains & Webs (DSM)
5	SC.04.42.03.03	There is an interaction and interdependence between and among living and nonliving components of systems (CAS: 4.2.3)	SC.04.06.02.01	Analyzes the interrelationships between organisms and components of an ecosystem	Food Chains & Webs (DSM)
5	SC.04.52.01.03	All organisms have structures and systems with separate functions (CAS: 5.2.1)	SC.03.05.01.01	Compares and contrasts the general structures that are responsible for growth, survival and reproduction in plants and animals	Food Chains & Webs (DSM)
1	SC.04.53.02.03	Earth's surface changes constantly through a variety of processes and forces (CAS: 5.3.2)			Earth Movements (DSM)
1	SC.04.62.01.03	Changes in environmental conditions can affect the survival of individual organisms, populations, and entire species (CAS: 6.2.1)			Food Chains & Webs (DSM)
1	SC.04.62.02.03	Organisms interact with each other and their environment in various ways to create a flow of energy and cycling of matter in an ecosystem (CAS: 6.2.2)			Food Chains & Webs (DSM)*
4	SC.04.63.01.03	Complex interrelationships exist between Earth's structure and natural processes that over time are both constructive and destructive (CAS: 6.3.1)	SC.07.02.04.01	Distinguishes between the processes that transform rocks in the rock cycle	Earth Movements (DSM)
1	SC.04.72.04.03	Photosynthesis and cellular respiration are important processes by which energy is acquired and utilized by organisms (CAS: 7.2.4)			Food Chains & Webs (DSM)*
1	SC.04.82.01.03	Human activities can deliberately or inadvertently alter ecosystems and their resiliency (CAS: 8.2.1)			Food Chains & Webs (DSM)

Revision Type	2011-2012 LT	2011-2012 LT Description	2010-2011 LT	2010-2011 LT Description	Resources
5	SC.05.31.01.03	Matter exists in different states such as solids, liquids, and gases and can change from one state to another by heating and cooling (CAS: 3.1.1)	SC.03.08.02.01	Recognizes that changes in the physical state of matter do not change the composition of the substance	Matter & Energy (FOSS Kit)
5	SC.05.41.01.03	Energy comes in many forms such as light, heat, sound, magnetic, chemical, and electrical (CAS: 4.1.1)	SC.05.09.01.01	Describes the different types of energy and their common sources	Matter & Energy (FOSS Kit)
5	SC.05.43.01.03	Earth is part of the solar system, which includes Sun, Moon, and other bodies that orbit the Sun in predictable patterns that lead to observable paths of objects in the sky as seen from Earth (CAS: 4.3.1)	SC.06.03.01.02	Explains how the positions and motions of Solar System components cause observable effects on Earth	Sun, Moon & Stars (FOSS Kit)
5	SC.05.53.01.03	Earth and Sun provide a diversity of renewable and nonrenewable resources (CAS: 5.3.1)	SC.05.02.03.01	Explains the depletion of resources and the benefits for conserving and recycling	Matter & Energy (FOSS Kit)
1	SC.05.61.03.03	The physical characteristics and changes of solid, liquid and gas states can be explained using the particulate model (CAS: 6.1.3)			Water Planet (FOSS Kit)
1	SC.05.81.02.03	There are different forms of energy and those forms of energy can be changed from one to another - but total energy is conserved (CAS: 8.1.2)			Matter & Energy* (FOSS Kit)
1	SC.05.81.03.03	Distinguish between physical and chemical changes, noting that mass is conserved during any change (CAS: 8.1.3)			Matter & Energy* (FOSS Kit)
4	SC.05.81.04.03	Recognize that waves such as electromagnetic, sound, seismic, and water have common characteristics and unique properties (CAS: 8.1.4)	SC.10.09.05.02	Compares and contrasts different types of waves	Matter & Energy* (FOSS Kit)
5	SC.05.83.03.03	The solar system is comprised of various objects that orbit the Sun and are classified based on their characteristics (CAS: 8.3.3)	SC.05.03.02.01	Compares and contrasts the Solar System's components	Sun, Moon & Stars* (FOSS Kit)

Revision Type	2011-2012 LT	2011-2012 LT Description	2010-2011 LT	2010-2011 LT Description	Resources
5	SC.05.83.04.03	The relative positions of the Earth, Moon and Sun can be used to explain observable effects such as seasons, eclipses and Moon phases (CAS: 8.3.4)	SC.06.03.01.02	Explains how the positions and motions of Solar System components cause observable effects on Earth	Sun, Moon & Stars* (FOSS Kit)

Revision Type	2011-2012 LT	2011-2012 LT Description	2010-2011 LT	2010-2011 LT Description	Resources
4	SC.06.53.03.03	Weather conditions change because of the uneven heating of Earth's surface by the Sun's energy. Weather changes are measured by differences in temperature, air pressure, wind and water in the atmosphere and type of precipitation (CAS: 5.3.3)	SC.04.01.02.01	Compares and contrasts climate and weather	Water Planet (FOSS Kit)
1	SC.06.61.03.03	The physical characteristics and changes of solid, liquid and gas states can be explained using the particulate model (CAS: 6.1.3)			Water Planet (FOSS Kit)
5	SC.06.63.02.03	Water on Earth is distributed and circulated through oceans, glaciers, rivers, ground water, and the atmosphere (CAS: 6.3.2)	SC.06.01.01.02	Investigates how the world's water is distributed and circulated through oceans, glaciers, rivers, ground water, and the atmosphere	Water Planet (FOSS Kit)
5	SC.06.63.03.03	Earth's natural resources provide the foundations for human society's physical needs. Many natural resources are nonrenewable on human timescales, while others can be renewed or recycled (CAS: 6.3.3)	SC.05.02.03.01	Explains the depletion of resources and the benefits for conserving and recycling	Water Planet (FOSS Kit)
1	SC.06.83.01.03	Weather is a result of complex interactions of Earth's atmosphere, land and water, that are driven by the energy of the sun, and can be predicted and described through complex models (CAS: 8.3.1)			Water Planet* (FOSS Kit)
5	SC.06.83.03.03	The solar system is comprised of various objects that orbit the Sun and are classified based on their characteristics (CAS: 8.3.3)	SC.05.03.02.01	Compares and contrasts the Solar System's components	Water Planet* (FOSS Kit)

Revision Type	2011-2012 LT	2011-2012 LT Description	2010-2011 LT	2010-2011 LT Description	Resources
5	SC.07.63.01.03	Complex interrelationships exist between Earth's structure and natural processes that over time are both constructive and destructive (CAS: 6.3.1)	SC.07.02.01.02	Forms conclusions about how plate tectonic activity impacts the Earth's surface	Earth History (FOSS Kit)
4	SC.07.72.05.03	Multiple lines of evidence show the evolution of organisms over geologic time (CAS: 7.2.5)	SC.07.02.05.02	Interprets data from the fossil record to support a claim that organisms and environments have evolved over time	Earth History (FOSS Kit)
5	SC.07.73.01.03	Major geologic events such as earthquakes, volcanic eruptions, mid-ocean ridges, and mountain formation are associated with plate boundaries and attributed to plate motions (CAS: 7.3.1)	SC.07.02.01.02	Forms conclusions about how plate tectonic activity impacts the Earth's surface	Earth History (FOSS Kit)
4	SC.07.73.02.03	Geologic time, history, and changing life forms are indicated by fossils and successive sedimentation, folding, faulting, and uplifting of layers of sedimentary rock (CAS: 7.3.2)	SC.07.02.06.01	Interprets rock layers to determine past and future conditions	Earth History (FOSS Kit)

Revision Type	2011-2012 LT	2011-2012 LT Description	2010-2011 LT	2010-2011 LT Description	Resources
5	SC.08.51.01.03	Mixtures of matter can be separated regardless of how they were created; all weight and mass of the mixture are the same as the sum of the weight and mass of the parts (CAS: 5.1.1)	SC.10.08.04.01	Investigates the Law of Conservation of Mass as it relates to physical and chemical changes	Oceans (DSM)*
1	SC.08.52.01.03	All organisms have structures and systems with separate functions (CAS: 5.2.1)			Oceans (DSM)
1	SC.08.53.01.03	Earth and Sun provide a diversity of renewable and nonrenewable resources (CAS: 5.3.1)			Oceans (DSM)
4	SC.08.53.02.03	Earth's surface changes constantly through a variety of processes and forces (CAS: 5.3.2)	SC.04.02.01.02	Forms conclusions about the processes that constantly change the Earth's surface	Oceans (DSM)
5	SC.08.61.03.03	The physical characteristics and changes of solid, liquid and gas states can be explained using the particulate model (CAS: 6.1.3)	SC.10.08.02.01	Compares and contrasts the physical properties of solids, liquids, gases, and the plasma state	Weather & Water (FOSS Kit)
1	SC.08.61.04.03	Distinguish among, explain, and apply the relationships among mass, weight, volume, and density (CAS: 6.1.4)			Weather & Water (FOSS Kit)
5	SC.08.63.02.03	Water on Earth is distributed and circulated through oceans, glaciers, rivers, ground water, and the atmosphere (CAS: 6.3.2)	SC.06.01.01.02	Investigates how the world's water is distributed and circulated through oceans, glaciers, rivers, ground water, and the atmosphere	Weather & Water (FOSS Kit)
1	SC.08.63.03.03	Earth's natural resources provide the foundations for human society's physical needs. Many natural resources are nonrenewable on human timescales, while others can be renewed or recycled (CAS: 6.3.3)			Weather & Water (FOSS Kit)
5	SC.08.71.01.03	Mixtures of substances can be separated based on their properties such as solubility, boiling points, magnetic properties and densities (CAS: 7.1.1)	SC.10.08.01.01	Investigates how physical properties can be used to separate substances of a mixture	Oceans (DSM)*

Revision Type	2011-2012 LT	2011-2012 LT Description	2010-2011 LT	2010-2011 LT Description	Resources
5	SC.08.73.01.03	Major geologic events such as earthquakes, volcanic eruptions, mid-ocean ridges, and mountain formation are associated with plate boundaries and attributed to plate motions (CAS: 7.3.1)	SC.07.02.01.02	Forms conclusions about how plate tectonic activity impacts the Earth's surface	Oceans (DSM)*
4	SC.08.83.01.03	Weather is a result of complex interactions of Earth's atmosphere, land and water that are driven by energy from the Sun, and can be predicted and described through complex models (CAS: 8.3.1)	SC.08.01.03.01	Generalizes the basic impact of solar energy and solar heating on the Earth's atmosphere	Weather & Water (FOSS Kit)
4	SC.08.83.02.03	Earth has a variety of climates defined by average temperature, precipitation, humidity, air pressure, and wind that have changed over time in a particular location (CAS: 8.3.2)	SC.08.01.02.02	Explains changes in weather and climate	Weather & Water (FOSS Kit)
5	SC.08.83.04.03	The relative positions of the Earth, Moon and Sun can be used to explain observable effects such as seasons, eclipses and Moon phases (CAS: 8.3.4)	SC.06.03.01.02	Explains how the positions and motions of Solar System components cause observable effects on Earth	Weather & Water (FOSS Kit)

Revision Type	2011-2012 LT	2011-2012 LT Description	2010-2011 LT	2010-2011 LT Description	Resources
1	SC.09.41.01.03	Energy comes in many forms such as light, heat, sound, magnetic, chemical, and electrical (CAS: 4.1.1)			Electrical Connections (DSM)
4	SC.09.72.01.03	Individual organisms with certain traits are more likely than others to survive and have offspring in a specific environment (CAS: 7.2.1)	SC.11.07.03.01	Evaluates why individual organisms with certain traits are more likely than others to survive and have offspring	DNA: From Genes to Proteins (DSM)
1	SC.09.72.02.03	The human body is composed of atoms, molecules, cells, tissues, organs, and organ systems that have specific functions and interactions (CAS: 7.2.2)			You & Your Body (DSM)* DNA: From Genes to Proteins (DSM)
4	SC.09.72.03.03	Cells are the smallest unit of life that can function independently and perform all the necessary functions of life (CAS: 7.2.3)	SC.08.05.01.01	Compares and contrasts plant and animal cells	You & Your Body (DSM)* DNA: From Genes to Proteins (DSM)
4	SC.09.72.04.03	Photosynthesis and cellular respiration are important processes by which energy is acquired and utilized by organisms (CAS: 7.2.4)	SC.11.05.01.01	Compares and contrasts how plants and animals obtain and use energy	DNA: From Genes to Proteins (DSM)
6	SC.09.81.01.03	Identify and calculate the direction and magnitude of forces that act on an object, and explain the results in the object's change of motion (CAS: 8.1.1)	SC.09.10.01.01 SC.09.10.03.01 SC.09.10.05.01	Analyzes the interaction of forces that affect the motion of an object Investigates change in distance over time Investigates changes in speed or direction over time	Newton's Toy Box (DSM)
6	SC.09.81.02.03	There are different forms of energy and those forms of energy can be changed from one to another - but total energy is conserved (CAS: 8.1.2)	SC.09.10.02.01 SC.10.09.03.01	Analyzes the interaction between potential and kinetic energy in a closed system Investigates how the Law of Conservation of Energy as it applies to an energy transformation	Newton's Toy Box (DSM)
5	SC.09.82.02.03	Organisms reproduce and transmit genetic information (genes) to offspring, which influences individuals' traits in the next generation (CAS: 8.2.2)	SC.11.04.01.01	Analyzes the relationship between chromosomes, genes, and traits and the roles they play in heredity	DNA: From Genes to Proteins (DSM)

Revision Type	2011-2012 LT	2011-2012 LT Description	2010-2011 LT	2010-2011 LT Description	Resources
4	SC.10.61.01.03	All matter is made of atoms, which are far too small to see directly through a light microscope. Elements have unique atoms and thus, unique properties. Atoms themselves are made of even smaller particles (CAS: 6.1.1)	SC.10.08.03.01	Illustrates the atomic structure of matter	Chemical Interactions (FOSS Kit)
4	SC.10.61.02.03	Atoms may stick together in well-defined molecules or be packed together in large arrangements. Different arrangements of atoms into groups compose all substances. (CAS: 6.1.2)	SC.10.08.05.01	Compares and contrasts elements, molecules, compounds, and mixtures	Chemical Interactions (FOSS Kit)
5	SC.10.61.03.03	The physical characteristics and changes of solid, liquid and gas states can be explained using the particulate model (CAS: 6.1.3)	SC.10.08.02.01	Compares and contrasts the physical properties of solids, liquids, gases, and the plasma state	Chemical Interactions (FOSS Kit)
5	SC.10.71.01.03	Mixtures of substances can be separated based on their properties such as solubility, boiling points, magnetic properties and densities (CAS: 7.1.1)	SC.10.08.01.01	Investigates how physical properties can be used to separate substances of a mixture	Chemical Interactions (FOSS Kit)
5	SC.10.81.03.03	Distinguish between physical and chemical changes, noting that mass is conserved during any change (CAS: 8.1.3)	SC.10.08.04.01	Investigates the Law of Conservation of Mass as it relates to physical and chemical changes	Chemical Interactions (FOSS Kit)

Revision Type	2011-2012 LT	2011-2012 LT Description	2010-2011 LT	2010-2011 LT Description	Resources
5	SC.11.62.01.03	Changes in environmental conditions can affect the survival of individual organisms, populations, and entire species (CAS: 6.2.1)	SC.11.06.02.01	Draws conclusions about how changes in environmental conditions impact the survival of organisms, populations and entire species	Populations & Ecosystems (FOSS Kit)
4	SC.11.62.02.03	Organisms interact with each other and their environment in various ways to create a flow of energy and cycling of matter in an ecosystem (CAS: 6.2.2)	SC.11.06.03.01	Analyzes the flow of matter and energy in an ecosystem	Populations & Ecosystems (FOSS Kit)
5	SC.11.82.01.03	Human activities can deliberately or inadvertently alter ecosystems and their resiliency (CAS: 8.2.1)	SC.11.06.02.01	Draws conclusions about how changes in environmental conditions impact the survival of organisms, populations and entire species	Populations & Ecosystems (FOSS Kit)
5	SC.11.82.02.03	Organisms reproduce and transmit genetic information (genes) to offspring, which influences individuals' traits in the next generation (CAS: 8.2.2)	SC.11.04.01.01	Analyzes the relationship between chromosomes, genes, and traits and the roles they play in heredity	Populations & Ecosystems (FOSS Kit) DNA: From Genes to Proteins (DSM)