

**Grades 7 & 8 – Science Curriculum
Student Friendly**

Life Science GLE	Grade 7- Student Friendly	Grade 8 –Student Friendly
<p>LS1:7-8:1.1 Recognize that similarities among organisms are found in anatomical features and patterns of development, and explain how these can be used to infer the degree of relatedness among organisms.</p>		<p>I know that similarities among organisms are found in body structure and how they develop. I can explain how these changes can be used to determine how related the two organisms are to one another.</p>
<p>LS1:7-8:1.2 GRADE 7 Explain that in all environments, organisms with similar needs may compete with one another for resources, including food, space, water, air, and shelter, and that in any particular environments the growth and survival of organisms depend on the physical conditions.</p>	<p>I can explain how in all ecosystems, living things compete with one another for all the things they need to stay alive. I know that all ecosystems are dependent on their abiotic factors.</p>	
<p>LS1:7-8:1.2 GRADE 8 Describe or compare how different organisms have mechanisms that work in a coordinated way to obtain energy, grow, move, respond, provide defense, enable reproduction, or maintain internal balance (e.g., cells, tissues, organs and systems).</p>		<p>I can describe how different living things have certain mechanisms that work together to help that living thing to obtain energy, grow, move, respond, provide defense, enable reproduction, or maintain internal balance.</p>
<p>LS1:7-8:2.2 Define a population and describe the factors that can affect it.</p>		<p>I can define “population” and describe factors that affect it.</p>
<p>LS1:7-8:2.3 Explain why it is beneficial for an organism to be able to regulate its internal environment while living in a constantly changing external environment.</p>		<p>I can explain the benefits of being “warm blooded”.</p>
<p>LS1:7-8:2.4 Explain relationships between or among the structure and function of the cells, tissues, organs, and organ systems in an organism.</p>		<p>I can explain the relationships, structures and functions of cells, tissues, organs and organ systems within an organism.</p>
<p>LS1:7-8:2.5 Using data and observations about the biodiversity of an ecosystem make predictions or draw conclusions about how the diversity contributes to the stability of the ecosystem.</p>	<p>I can use data and observations about the different living things within an ecosystem to make predictions or draw conclusions. I can use that information to explain how that diversity helps the ecosystem stay healthy.</p>	
<p>LS1:7-8:3.6 Compare and contrast sexual reproduction with asexual reproduction.</p>		<p>I can compare and contrast sexual reproduction with asexual reproduction.</p>

LS1:7-8:3.7 Using data provided, select evidence that supports the concept that genetic information is passed on from both parents to offspring.		When given data, I can use it to find proof that genetic information is passed on from both parents to offspring.
LS2:7-8:1.1 Explain how changes in environmental conditions can affect the survival of individual organisms and the entire species.	I can explain how changes in the environment affect whether or not some organisms or populations survive.	
LS2:7-8:1.3 Using data and observations, predict outcomes when abiotic/biotic factors are changed in an ecosystem.	I can use data and observations to make predictions about an ecosystem when the biotic and abiotic factors are changed.	
LS2:7-8:2.1 Explain how food provides energy and materials for growth and repair of body parts.		I can explain how the food provides energy and materials for growth. I can also explain how it repairs body parts.
LS2:7-8:2.2 Given a scenario, trace the flow of energy through an ecosystem, beginning with the sun, through organisms in the food web, and into the environment (includes photosynthesis and respiration).	I can show the flow of energy through an ecosystem.	
LS2:7-8:3.1 Identify autotrophs as producers who may use photosynthesis and describe this as the basis of the food web.		I can identify autotrophs. I know their importance to the food web.
LS2:7-8:3.2 Explain the process of respiration and differentiate between it and photosynthesis.	I can explain the cell respiration. I can also tell the differences between cell respiration and photosynthesis.	I can explain the cell respiration. I can also tell the differences between cell respiration and photosynthesis.
LS2:7-8:3.3 Know that all organisms, including humans, are part of, and depend on, two main interconnected global food webs, one which includes microscopic ocean plants, and the other which includes land plants.	I know that all organisms, including humans, depend on connected food chains and that each of those food chains starts with a producer.	
LS2:7-8:3.4 Describe how matter is recycled within ecosystems and explain that the total amount of matter remains the same, though its form and location change.	I can describe how all matter is recycled in an ecosystem. I also know that the amount of matter stays the same, even if it changes form.	
LS2:7-8:3.5 Identify carbon, hydrogen, nitrogen, and phosphorus as common elements of living matter.	I can identify the four major elements in any living thing.	

<p>LS2:7-8:3.6 Given an ecosystem, trace how matter cycles among and between organisms and the physical environment (includes water, oxygen, food web, decomposition, recycling but not carbon cycle or nitrogen cycle).</p>	<p>I can show you the cycles of water, oxygen, and energy within a food web throughout an ecosystem.</p>	
<p>LS3:7-8:1.1 Describe the type of impact certain environmental changes, including deforestation, invasive species, increased erosion, and pollution containing toxic substances, could have on local environments.</p>	<p>I can describe how certain changes in the environment can cause negative affects on local environments.</p>	
<p>LS3:7-8:2.3 Use a model, classification system, or dichotomous key to illustrate, compare, or interpret possible relationships among groups of organisms (e.g., internal and external structures, anatomical features)</p>		<p>I can illustrate, compare or interpret possible relationships among groups of organisms with a model, classification system or a dichotomous key.</p>
<p>LS3:7-8:3.1 Recognize that hereditary information is contained in genes, which are located in the chromosomes of each cell, and explain that inherited traits can be determined by either one or many genes, and that a single gene can influence more than one trait, such as eye and hair color.</p>		<p>I know that our cells hold hereditary information in their chromosomes. I know that the traits we inherit can be determined by one or by many chromosomes.</p>
<p>LS3:7-8:3.2 Recognize that in any given environment the growth and survival of organisms depend on the physical conditions that exist, and explain that in all environments, organisms with similar needs may compete with one another for resources, including food, space, water, air, and shelter.</p>	<p>I know that all living things depend on abiotic factors in order to survive.</p>	
<p>LS3:7-8:3.3 Explain how individual organisms with certain traits are more likely than others to survive and have offspring.</p>	<p>I can explain why some organisms with certain characteristics are more likely to survive over other organisms.</p>	
<p>LS3:7-8:3.4 Recognize that humans are able to control some characteristics of plants and animals through selective breeding; and explain how this results in small differences between the parents and offspring, which can accumulate in successive generations so that decedents are very different from their ancestors.</p>		<p>I know that humans are able to control some of the characteristics of plants and animals through selective breeding. I can explain how we can cause small differences between parents and offspring. I can show that over several generations, these small changes can make a big difference between the decedents and their ancestors.</p>

<p>LS3:7-8:3.5 Cite examples supporting the concept that certain traits of organisms may provide a survival advantage in a specific environment and therefore, an increased likelihood to produce offspring.</p>		<p>I can give examples that support the idea that certain traits of living things help give them an advantage to survive in a particular environment. I can also use that information to show that they will be more likely to produce offspring.</p>
<p>LS4:7-8:1.1 Recognize that unlike human beings, behavior in insects and many other species is determined almost entirely by biological inheritance.</p>		<p>I know that unlike learned behavior in humans, behavior in many species is almost entirely by biological inheritance.</p>
<p>LS4:7-8:1.2 Explain that organism's behavioral response is a reaction to internal or and environmental stimuli, and that these responses may be determined by heredity or from past experience.</p>		<p>I can explain that how an organism responds to a situation depends on its internal and/or environmental influences. I know that how it responds may be determined by heredity or by its past experiences.</p>
<p>LS4:7-8:1.3 Explain how all behavior is affected by both inheritance and experience.</p>		<p>I can explain how behavior is affected by both inheritance and experience.</p>
<p>LS4:7-8:2.1 Explain that the human body has ways to defend itself against disease causing organisms and describe how defenders, including tears, saliva, the skin, some blood cells and stomach secretions support the defense process.</p>		<p>I can describe ways in which the body protects itself from disease causing organisms.</p>
<p>LS4:7-8:2.2 Recognize that there are some diseases that human beings can only get once, and explain how many diseases can be prevented by vaccination</p>		<p>I know that there are some diseases that humans can only get once. I can explain how many diseases can be prevented by vaccination.</p>
<p>LS4:7-8:2.3 Explain how vaccines induce the body to build immunity to a disease without actually causing the disease itself.</p>		<p>I can explain how vaccines cause the body to build immunity to a disease without actually causing it.</p>
<p>LS4:7-8:2.4 Recognize a healthy body cannot fight all germs invade it, and explain how some germs interfere with the body's defenses.</p>		<p>I know that the body cannot fight all germs that invade it. I can explain how some of these germs interfere with the body's defenses.</p>
<p>LS4:7-8:3.1 Compare patterns of human development are similar to those of other vertebrates</p>		<p>I can find patterns between human development and the development of other vertebrates.</p>

<p>LS4:7-8:3.2 Recognize that the characteristics of an organism can be described in terms of a combination of traits, and explain that some traits are inherited while others result from interactions with the environment.</p>		<p>I know that the characteristics of an organism can be described in terms of a combination of traits. I can explain that some traits are inherited and some we develop by interacting with our environment.</p>
<p>LS5:7-8:1.1 Explain ways technology has influenced the course of history, as it relates to agriculture, sanitation and medicine.</p>	<p>I can explain different ways that technology has changed history.</p>	<p>I can explain ways in which technology has changed history.</p>
<p>LS5:7-8:1.2 Provides examples of ways technology is used to protect the environment, such as using bacteria to clean water.</p>	<p>I can give examples of ways in which we use technology to protect the environment.</p>	<p>I can give examples of ways technology can be used to protect the environment.</p>
<p>LS5:7-8:2.1 Recognize and provide examples of how technology has enhanced the study of life sciences, as in the development of advanced diagnosing equipment improving medicine.</p>	<p>I know and can give examples of ways that technology has helped medicine throughout history.</p>	<p>I can give examples of how technology has helped us understand life sciences. I know that some of those examples include developing medicines.</p>
<p>LS5:7-8:3.1 Explain the necessity of, and purpose for the proper disposal of medical products.</p>	<p>I can explain why it is important to properly dispose medical products.</p>	<p>I can explain why it is important to properly dispose of medical products.</p>
<p>LS5:7-8:3.2 Give examples of how increased understanding of biology has led to improvements in biotechnology, such as scientific methods for increasing the yield or pest-resistance of important food crops.</p>	<p>I know what biotechnology is. I know that when we learn more we can combine technology and biology together to help the world around us.</p>	<p>I can give examples of how biotechnology has improved.</p>
<p>LS5:7-8:3.3 Describes ways biotechnology helps humans, including improved health and medicine.</p>	<p>I know different ways that biotechnology has helped humans in terms of health and medicine.</p>	<p>I can describe ways that biotechnology has helped humans.</p>
<p>LS5:7-8:4.1 Understand that some scientific jobs/careers involve the application of life science knowledge and experience in specific ways that meet the goals of the job.</p>	<p>I know that what I learn here might help me in the job I choose someday.</p>	<p>I know that what I learn here might be important to the job I choose someday.</p>

Physical Science GLE	Grade 7- Student Friendly	Grade 8 –Student Friendly
PS1:7-8:1.5 Identify methods used to separate mixtures into their component parts, such as boiling, filtering, chromatography and screening.		I know different ways to separate mixtures into their smaller parts.
PS1:7-8:1.6 Given graphic or written information, classify matter as atom/molecule or element/compound (Not the structure of an atom)		I can sort matter as atoms/molecules or as elements/compounds using graphs or written information.
PS1:7-8:2.1 Differentiate between volume and mass and define density		I know the difference between volume and mass. I can define density.
PS1:7-8:2.2 Explain how different substances of equal volume usually have different weights.		I can explain how things with the same volume usually have different weights.
PS1:7-8:2.3 Identify a molecule as the smallest part of a substance that retains its properties.		I know that the smallest part of a substance is a molecule.
PS1:7-8:2.4 Investigate the relationships among mass, volume and density.		I can investigate the relationships among mass, volume and density.
PS1:7-8:2.5 Given data about characteristic properties of matter (e.g., melting and boiling points, density, solubility) identify, compare, or classify different substances.		I can identify, compare or sort different substances when I'm given information about their characteristics.
PS2:7-8:1.1 Explain how substances react chemically with other substances to form new substances, known as compounds and that in such recombinations, the properties of the new substances may be very different from those of the old.		I can explain how substances react chemically with other substances to form new substances. I know that the new substances are known as compounds that may have very different properties from the original substances.
PS2:7-8:1.2 Identify factors that affect reaction rates, such as temperature, concentration and surface area, and explain that dissolving substances in liquids often accelerates up reaction rates.		I can name different ways to speed up or slow down a chemical reaction.
PS2:7-8:1.3 Explain that oxidation involves the combining of oxygen with another substance, as in burning or rusting.		I can explain the process of oxidation.
PS2:7-8:1.4 Explain that states of matter depend on the arrangement of the molecules and their motion.		I can explain the different states of matter and the arrangement of the molecules that causes the differences.
PS2:7-8:1.5 Given a real-world example, show that within a system, energy transforms from one form to another (i.e., chemical, heat, electrical, gravitational, light, sound, mechanical).	I can give real life examples that show how energy transforms from one form to another.	

PS2:7-8:2.1 Explain the law of conservation of energy.	I can explain the Law of Conservation Energy.	
PS2:7-8:2.2 Collect data or use data provided to infer or predict that the total amount of mass in a closed system stays the same, regardless of how substances interact (conservation of matter).		
PS2:7-8:3.1 Differentiate between kinetic energy, which is the energy of motion and potential energy, which depends on relative position.	I can tell the difference between kinetic and potential energy.	
PS2:7-8:3.2 Recognize how the Sun acts as a major source of energy for the Earth, and describes how it affects the planet's surface.		
PS2:7-8:3.3 Describe ways light interacts with matter, such as transmission, including refraction, absorption, and scattering, which includes reflection.	I can describe the different ways that light interacts with matter.	
PS2:7-8:3.4 Explain that the human eye can only detect wavelengths of electromagnetic radiation within a narrow range, and explain that the differences of wavelength within that range of visible light are perceived as differences in color.	I can explain that the human eye can only detect certain wavelengths within the electromagnetic spectrum. I know that we see different colors because they are at different wavelengths.	
PS2:7-8:3.5 Recognize that most chemical and nuclear reactions involve a transfer of energy.	I know that most chemical and nuclear reactions involve a transfer of energy.	
PS2:7-8:3.6 Use data to draw conclusions about how heat can be transferred (convection, conduction, radiation).	I can use information to make conclusions about how heat can be transferred as convection, conduction or radiation.	
PS3:7-8:1.1 Explain that the force of gravity gets stronger the closer you get to an object and decreases the further you get from it.	I can explain that the force of gravity gets stronger the closer you get to an object. I can also explain that the force of gravity gets weaker the further you get from it.	
PS3:7-8:1.2 Recognize the general concepts related to gravitational force.	I recognize ideas that concern gravitational force.	
PS3:7-8:1.3 Use data to determine or predict the overall (net) effect of multiple forces (e.g., friction, gravitational, magnetic) on the position, speed, and direction of motion of objects.	I can use data to determine or predict the effect of something if it has more than one force acting on it, like its position, speed, or direction.	

<p>PS3:7-8:2.1 Explain that an object in motion that is unaffected by a force will continue to move at a constant speed and in a straight line.</p>	I can explain Newton's Laws.	
<p>PS3:7-8:2.2 Explain how the motion of an object can be described by its position, direction of motion, and speed, and illustrate how that motion can be measured and represented graphically.</p>	I can explain how the motion of an object can be measured and shown on a graph.	
<p>PS4:7-8:1.1 Understand that design features, such as size, shape, weight, and function, must be considered when designing new technology.</p>	I understand that when designing new technology we have to keep in mind things like size, shape, weight, and function.	
<p>PS4:7-8:2.1 Demonstrate appropriate use of tools, such as rulers, calculators, balances, and graduated cylinders to measure and calculate volume and mass.</p>	I can use science tools to measure in order to better understand science.	
<p>PS4:7-8:3.1 Explain how humans use natural resources, such as flowing water and burning of coal, oil, or natural gas to generate electrical energy in power plants.</p>	I can explain how we use natural resources in order to generate electrical energy in power plants.	
<p>PS4:7-8:3.2 Describe how natural resources, such as coal, oil and natural gas are tapped for use in power plants, and how alternative sources, such as solar, wind, water, nuclear are tapped for power, and compare the advantages and disadvantages of each source.</p>	I can compare the advantages and disadvantages of using natural resources or alternative energy resources.	
<p>PS4:7-8:3.3 Differentiate between durable good, which are designed to operate for a long period of time, and non-durable goods, which are only intended to operate for a short period of time.</p>	I can tell the difference between durable goods and non-durable goods.	
<p>PS4:7-8:4.1 Understand that some scientific jobs/careers involve the application of physical science content knowledge and experience in specific ways that meet the goals of the job.</p>	I know that what I learn now might be important to the job I choose in the future.	

Earth and Space Science GLE	Grade 7- Student Friendly	Grade 8 –Student Friendly
ESS1:7-8:1.1 Identify and describe the processes involved in the water cycle and explain its effects on climatic patterns.	I can show and describe the water cycle. I can also explain how it affects climate.	I can show and describe the water cycle. I can also explain how it affects climate.
ESS1:7-8:1.2 Identify and describe the impact certain factors have on the Earth's climate, including changes in the oceans' temperature, changes in the composition of the atmosphere, and geological shifts due to events, such as volcanic eruptions and glacial movements.	I can show and describe things that affect the Earth's climate, like changes in ocean temperature, changes in the composition of atmosphere, geological shifts, volcanic eruptions, and glacial movements.	I can show and describe things that affect the Earth's climate, like changes in ocean temperature, changes in the composition of atmosphere, geological shifts, volcanic eruptions, and glacial movements.
ESS1:7-8:2.1 Describe the layers of the Earth, including the core, mantle, lithosphere, hydrosphere, and atmosphere.		I can describe how satellite images have shown changes on the Earth's surface because of catastrophic events.
ESS1:7-8:2.2 Use geological evidence provided to support the idea that the Earth's crust/lithosphere is composed of plates that move. [ESS1(5-8)INQ+POC-1]		I can use data to show that the Earth's crust and lithosphere are made of plates that move.
ESS1:7-8:3.1 Explain how fossils found in sedimentary rock can be used to support the theories of Earth's evolution over geologic time, and describe how the folding, breaking, and uplifting of the layers affects the evidence.		I can explain how fossils found in sedimentary rock can be used as evidence of evolution. I also know that changes in the Earth's crust can affect that evidence.
ESS1:7-8:4.1 Describe how catastrophic changes that have taken place on the Earth's surface can be revealed by satellite images.	I can describe how satellite images have shown changes on the Earth's surface because of catastrophic events.	I can describe how satellite images of Earth can show the drastic changes that have happened on Earth over a period of time.
ESS1:7-8:5.1 Explain that the Earth's crust is divided into plates, which move at extremely slow rates in response to movements in the mantle.		I know that the Earth's crust can be divided into plates. I know that those plates move extremely slowly because of the mantle.
ESS1:7-8:5.2 Explain how the Earth events, abruptly and over time, can bring about changes in the Earth's surface (e.g., landforms, ocean floor, rock features, or climate). [ESS1(5-8)POC-3]		I can explain how certain events change the Earth's surface quickly or slowly.

<p>ESS1:7-8:5.3 Explain the role of differential heating or convection in ocean currents, winds, weather and weather patterns, atmosphere, or climate. [ESS1(5-8)SAE+POC-4]</p>	<p>I can explain the role of differential heating or convection in ocean currents, winds, weather and weather patterns, atmosphere or climate.</p>	<p>I can explain the role of differential heating or convection in ocean currents, winds, weather and weather patterns, atmosphere or climate.</p>
<p>ESS1:7-8:6.1 Describe the processes of the rock cycle.</p>		<p>I can explain the rock cycle.</p>
<p>ESS1:7-8:6.2 Explain that sedimentary, igneous, and metamorphic rocks contain evidence of the minerals, temperatures, and forces that created them.</p>		
<p>ESS1:7-8:6.3 Explain how sediments of sand and smaller particles, which may contain the remains of organisms, are gradually buried and cemented together by dissolved minerals to form solid rock.</p>		
<p>ESS1:7-8:6.4 Using data about a rock's physical characteristics make and support an inference about the rock's history and connection to the rock cycle. [ESS1(5-8)SAE+POC-5]</p>		
<p>ESS1:7-8:7.1 Describe how water flows into and through a watershed, falling on the land, collecting in rivers and lakes, soil, and porous layers of rock until much of it flows back into the ocean.</p>	<p>I can describe how water flows through the different levels of a watershed.</p>	<p>I can describe how water flows through the different levels of a watershed.</p>
<p>ESS1:7-8:7.2 Identify the chemical and physical properties that make water an essential component of the Earth's system.</p>	<p>I can identify the chemical and physical properties of water. I know why water is an essential part of the Earth's system.</p>	<p>I can identify the chemical and physical properties of water. I know why water an essential part of the Earth's system.</p>
<p>ESS1:7-8:7.3 Explain the processes that cause cycling of water into and out of the atmosphere and their connections to our planet's weather patterns. [ESS1(5-8)SAE-2]</p>	<p>I can explain the process that causes water to cycle in and out of the atmosphere and their connections to our planet's weather patterns.</p>	<p>I can explain the process of that causes water to cycle in and out of the atmosphere and their connections to our planet's weather patterns.</p>

ESS2:7-8:1.1 Identify the characteristics of the Sun and its position in the universe.	I can identify the characteristics of the Sun and its position in the universe.	I can identify the characteristics of the Sun and its position in the universe.
ESS2:7-8:1.2 Recognize and describe how the regular and predictable motions of the Earth and Moon account for phenomena, such as the phases of the Moon and eclipses.	I can describe the motions of celestial objects and the phenomena that occur because of them.	
ESS2:7-8:1.3 Recognize the relationships between the tides and the phases of the Moon, and use tide charts and National Oceanic & Atmospheric Administration (NOAA) information to describe them.	I know the connection between the tides and the phases of the Moon. I can also use tide charts and NOAA information to describe them.	I know the connection between the tides and the phases of the moon. I can also use tide charts and NOAA information to describe them.
ESS2:7-8:1.4 Explain the temporal or positional relationships between or among the Earth, Sun and Moon (e.g., night/day, seasons, year, tide). [ESS2(5-8)SAE+POC-8]	I can explain the temporal and positional relationships between the Earth, Sun and Moon.	I can explain the temporal and positional relationships between the Earth, Sun and Moon.
ESS2:7-8:2.1 Describe the Sun as the principle energy source for phenomena on the Earth's surface.	I can describe the Sun as the main energy source for the Earth's surface.	I can describe the Sun as the main energy source for the Earth's surface.
ESS2:7-8:3.1 Identify the characteristics and movement patterns of the planets in our Solar System and differentiate between them.	I can identify the characteristics and movement patterns of the planets and tell them apart from one another.	I can identify the characteristics and movement patterns of the planets and tell them apart from one another.
ESS2:7-8:3.2 Explain the affects of gravitational force on the planet and their moons.	I can explain how gravity affects the planets and their moons.	I can explain how gravity affects the planets and their moons.
ESS2:7-8:3.3 Explain why the planet Earth and our Solar System appear to be somewhat unique, while acknowledging recent evidence that suggests similar systems exist in the universe.	I can explain why the Earth and our Solar System seem to be unique. I can also give proof that other solar systems in the universe are similar to ours.	
ESS2:7-8:3.4 Compare and contrast planets based on data provided about size, composition, location, orbital movement, atmosphere, or surface features (includes moons). [ESS2(5-8)MAS-6]	I can compare and contrast the planets and their moons using data given to me.	I can compare and contrast the planets and their moons using data given to me.
ESS2:7-8:3.5 Explain how gravitational force affects objects in the Solar System (e.g., moons, tides, orbits, satellites). [ESS2(5-8)SAE+POC-8]	I can explain how gravity affects objects in the Solar System.	I can explain how gravity affects objects in the Solar System.

ESS2:7-8:4.1 Explain how technological advances have allowed scientists to re-evaluate or extend existing ideas about the Solar System. [ESS2(5-8)NOS-7]	I can explain how technology has increased and helped our knowledge of the Solar System.	I can explain how technology has increased and helped our knowledge of the Solar System.
ESS3:7-8:1.1 Define an astronomical unit as the distance from the Earth to the Sun.	I know that an astronomical unit is the distance from the Earth to the Sun and can define it.	I know that an astronomical unit is the distance from the Earth to the Sun and can define it.
ESS3:7-8:1.2 Explain that special units of measure, such as light years and astronomical units are used to calculate distances in space.	I can explain about the special units of measurement used just for space.	I can explain about the special units of measurement used just for space.
ESS3:7-8:2.1 Describe objects such as asteroids, comets, and meteors in terms of their characteristics and movement patterns.	I can describe the characteristics and movement patterns of space objects like asteroids, comets, and meteors.	I can describe the characteristics and movement patterns of space objects like asteroids, comets, and meteors.
ESS3:7-8:3.1 Describe the universe as being composed of billions of galaxies, each containing many billions of stars, and that there are vast distances separating these galaxies and stars from one another.	I can describe how the universe is made up of billions of galaxies, each made of billions of stars. I know that there are huge distances between galaxies and between stars.	I can describe how the universe is made up of billions of galaxies, each made of billions of stars. I know that there are huge distances between galaxies and between stars.
ESS4:7-8:3.3 Explain how technologies can reduce the environmental impact of natural disasters.		I can explain how technology can reduce the environmental impact of natural disasters.
ESS4:7-8:3.4 Identify the potential impact of converting forested land to uses such as farms, homes, factories, or tourist attractions.		I can identify how changing forests to farms and other things will impact the environment
ESS4:7-8:1.1 Describe ways in which technology has increased our understanding of the world in which we live.	I can describe ways that technology has increased our understanding of the world around us.	I can describe ways that technology has increased our understanding of the world around us.
ESS4:7-8:1.2 Recognize the importance of technology as it relates to science, for purposes such as access to space and other remote locations, sample collection and treatment, measurement, and data collection.	I know that technology is important to science to help us understand space, remote locations, sample collections, measurement, and data collection.	I know that technology is important to science to help us understand space, remote locations, sample collections, measurement, and data collection.
ESS4:7-8:2.1 Calculate temperature in degrees Celsius.	I can calculate the temperature in degrees Celsius.	I can calculate the temperature in degrees Celsius.
ESS4:7-8:2.2 Perform calculations using metric measurements.	I can measure using the metric system.	I can measure using the metric system.
ESS4:7-8:2.3 Describe how man uses land-based light telescopes, radio telescopes, satellites, manned exploration, probes and robots to collect data.	I can tell how we use land-based light telescopes, radio telescopes, satellites, manned exploration, probes and robots to collect data.	I can describe how we use land based light telescopes, radio telescopes, satellites, manned exploration, probes and robots to collect data.

<p>ESS4:7-8:3.1 Provide examples of how creative thinking and economic need has shaped the way people use natural materials, such as the use of metal ores petroleum and fresh water.</p>	<p>I know that we can find new ways to use natural materials when we think creatively or make money from doing it.</p>	<p>I know that we can find new ways to use natural materials when we think creatively or make money from doing it.</p>
<p>ESS4:7-8:3.2 Explain how to test natural materials to measure and compare their properties.</p>	<p>I can tell the different ways to test natural materials and to compare their properties.</p>	<p>I can explain the different ways to test natural materials and to compare their properties.</p>
<p>ESS4:7-8:3.3 Explain how technologies can reduce the environmental impact of natural disasters.</p>	<p>I can explain how technology can reduce the environmental impact of natural disasters.</p>	<p>I can explain how technology can reduce the environmental impact of natural disasters.</p>
<p>ESS4:7-8:3.4 Identify the potential impact of converting forested land to uses such as farms, homes, factories, or tourist attractions.</p>	<p>I can tell how changing forests to farms and other things will impact the environment.</p>	<p>I can tell how changing forests to farms and other things will impact the environment.</p>
<p>ESS4:7-8:4.1 Understand that some scientific careers involve the application of Earth and Space Science content knowledge and experience in specific ways that meet the goals of the job.</p>	<p>I know that what I learn in Earth and Space Science might be important to the job I choose in the future.</p>	<p>I know that what I learn in Earth and Space Science might be important to the job I choose in the future.</p>