

		Verbs / Bloom's Taxonomy Level	Content Vocabulary	* Assess	Skills Needed & Sequencing Of Skills	Resources	Learning Targets I can...	Assessment
SCIENCE PROCESSES - INQUIRY PROCESS								
S.I.P.M.1	Develop an understanding that scientific inquiry and reasoning involves observing, questioning, investigating, recording, and developing solutions to problems.	Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.	generate - synthesis conduct - application develop - synthesis reasoning - evaluation observe - synthesis	investigation	H	generate questions conduct an investigation by following a plan record results analyze data form a conclusion	I can generate questions about science I can follow an investigation plan I can record my results I can analyze my data I can form a conclusion on my data	BCS Assessments Teacher Assessments
S.I.P.06.11		Generate scientific questions based on observations, investigations, and research.	generate - synthesis		H	make observations complete investigations conduct research generate questions	I can generate questions about science I can follow an investigation plan I can record my results I can analyze my data I can form a conclusion on my data I can research a science topic	BCS Assessments Teacher Assessments
S.I.P.06.12		Design and conduct scientific investigations.	design - synthesis conduct - application		H	question hypothesis develop a plan follow the plan record results analyze data form a conclusion	I can generate questions about science I can follow an investigation plan I can record my results I can analyze my data I can form a conclusion on my data I can develop a hypothesis I can create an investigation plan	BCS Assessments Teacher Assessments
S.I.P.06.13		Use tools and equipment (spring scales, stop watches, meter sticks and tapes, models, hand lens, thermometer, models, sieves, microscopes) appropriate to scientific investigations.	use - application		H	Identify appropriate equipment use equipment properly	I can use appropriate tools for an investigation	BCS Assessments Teacher Assessments
S.I.P.06.14		Use metric measurement devices in an investigation.	use - application		H	use metric tools correctly	I can use appropriate tools for an investigation	BCS Assessments
S.I.P.06.15		Construct charts and graphs from data and observations.	construct - synthesis		H	collect data through observation construct charts and graphs	I can record my results I can construct charts and graphs	BCS Assessments
		Identify patterns in data.	identify - comprehension		H	identify patterns in data	I can analyze data	BCS Assessments
INQUIRY ANALYSIS AND COMMUNICATION								
S.I.A.M.1	Develop an understanding that scientific inquiry and investigations require analysis and communication of findings, using appropriate technology.	Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.			H			BCS Assessments Teacher Assessments
S.I.A.06.11		Analyze information from data tables and graphs to answer scientific questions.	analyze - analysis answer - knowledge		H	analyze data use data to answer questions	I can analyze data I can use data to answer questions	BCS Assessments Teacher Assessments

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S.IA.06.12		Evaluate data, claims, and personal knowledge through collaborative science discourse.	evaluate - evaluation		evaluate data		I can evaluate data with peers I can evaluate claims with peers I can evaluate personal knowledge with peers	BCS Assessments Teacher Assessments
S.IA.06.13		Communicate and defend findings of observations and investigations using evidence.	communicate - knowledge defend - evaluation		communicate results via verbal or written expression take a position based on data - provide evidence for your position		I can communicate results via verbal or written expression I can defend my position using evidence	BCS Assessments Teacher Assessments
S.IA.06.14		Draw conclusions from sets of data from multiple trials of a scientific investigation.	draw conclusions - evaluation		analyze data form a conclusion		I can analyze my data I can form a conclusion on my data	BCS Assessments Teacher Assessments
S.IA.06.15		Use multiple sources of information to evaluate strengths and weaknesses of claims, arguments, or data.	use - application evaluate - evaluation		evaluate data, claims and arguments using multiple sources		I can evaluate data with multiple sources I can evaluate claims with multiple sources I can evaluate arguments with multiple sources	BCS Assessments Teacher Assessments
REFLECTION AND SOCIAL IMPLICATIONS								
S.RS.M.1	Develop an understanding that scientific inquiry and investigations require analysis and communication of findings, using appropriate technology.	Reflecting on knowledge is the application of scientific knowledge to new and different situations. Reflecting on knowledge requires careful analysis of evidence that guides decision-making and the application of science throughout history and within society.						BCS Assessments Teacher Assessments
S.RS.06.11		Evaluate the strengths and weaknesses of claims, arguments, and data.	evaluate - evaluation		evaluating strengths and weaknesses of claims, arguments, and data		I can evaluate strengths and weaknesses of claims, arguments, and data	BCS Assessments Teacher Assessments
S.RS.06.12		Describe limitations in personal and scientific knowledge.	describe - knowledge		research scientific knowledge, understand personal scientific knowledge, understand limitations of personal and scientific knowledge		I can describe my limitations of personal and scientific knowledge	BCS Assessments Teacher
S.RS.06.13		Identify the need for evidence in making scientific decisions.	identify - comprehension		recognize need for, and use evidence when making scientific decisions		I can use evidence when making scientific decisions	BCS Assessments
S.RS.06.14		Evaluate scientific explanations based on current evidence and scientific principles.	evaluate - evaluation		research and understand scientific knowledge and principles and use to evaluate scientific explanations		I can use evidence and scientific principles when deciding if current scientific explanations are correct	BCS Assessments Teacher Assessments

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S.RS.06.15	Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.	demonstrate - application		H	demonstrate scientific concepts using various illustrations, performances, models, exhibits, and activities		I can show that I understand scientific concepts using various illustrations, performances, models, exhibits, and activities	BCS Assessments Teacher Assessments
S.RS.06.16	Design solutions to problems using technology.	design - synthesis		H	use technology to design problem solutions		I can use technology to design answers to problems	BCS Assessments Teacher
S.RS.06.17	Describe the effect humans and other organisms have on the balance of the natural world.	describe - comprehension		H	understand how ecosystems balance themselves and how humans and other organisms can change that balance		I can show how humans and other organisms can change an ecosystem	BCS Assessments Teacher Assessments
S.RS.06.18	Describe what science and technology can and cannot reasonably contribute to society.	describe - comprehension		H	evaluate current science and technology and current society evaluate how science, technology, and society are interrelated		I can show what science can and cannot do to help humans	BCS Assessments Teacher Assessments
S.RS.06.19	Describe how science and technology have advanced because of the contributions of many people throughout history and across cultures.	describe - knowledge		H	research contributions made to science and technology		I can research how people have made inventions or discoveries that advanced science and technology	BCS Assessments Teacher Assessments
PHYSICAL SCIENCE - ENERGY								
P.EN.M.1	Develop an understanding that there are many forms of energy (such as heat, light, sound, and electrical) and that energy is transferable by convection, conduction, or radiation. Understand energy can be in motion, called kinetic; or it can be stored, called potential. Develop and understanding that as temperature increases, more energy is added to a system. Understand nuclear reactions in the sun produce light and heat for the earth.	Kinetic and Potential Energy - Objects and substances in motion have kinetic energy. Objects and substances may have potential energy due to their relative positions in a system. Gravitational, elastic, and chemical energy are all forms of potential energy.		M				BCS Assessments Teacher Assessments
P.EN.06.11	Identify kinetic or potential energy in everyday situations (for example: stretched rubber band, objects in motion, ball on a hill, food energy).	identify - comprehension		M	Identify kinetic or potential energy in everyday situations		I can list examples of potential energy in my world. I can list examples of kinetic energy in my world.	BCS Assessments Teacher Assessments
P.EN.06.12	Demonstrate the transformation between potential and kinetic energy in simple mechanical systems (for example: roller coasters, pendulums).	demonstrate - application		M	Demonstrate the transformation between potential and kinetic energy in simple mechanical systems (for example: roller coasters, pendulums).		I can show examples of where potential and kinetic energy change into one another on things like a pendulum or a roller coaster.	BCS Assessments Teacher Assessments

*High Matrix Representation (H)
Moderate Representation (M)
Low Matrix Representation (L)

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.P.EN.M.4		Energy is transferred from a source to a receiver by radiation, conduction, and convection. When energy is transferred from one system to another, the quantity of energy before the transfer is equal to the quantity of energy after the transfer.			M			BCS Assessments Teacher Assessments
P.EN.06.41		Explain how different forms of energy can be transferred from one place to another by radiation, conduction, or convection.	explain - comprehension		M	Explain how different forms of energy can be transferred from one place to another by radiation, conduction, or convection.	I can find examples of conduction in my world and explain this type of energy transfer. I can find examples of convection and explain this type of energy transfer. I can find examples of radiation and explain this type of energy transfer.	BCS Assessments Teacher Assessments
.P.EN.06.42		Illustrate how energy can be transferred while no energy is lost or gained in the transfer.	illustrate - analysis		M	Illustrate how energy can be transferred while no energy is lost or gained in the transfer.	I can draw and explain how energy can be transferred without any energy being lost or gained.	BCS Assessments Teacher Assessments
CHANGES IN MATTER								
P.CM.M.1	Develop an understanding of changes in the state of matter in terms of heating and cooling, and in terms of arrangement and relative motion of atoms and molecules. Understand the differences between physical and chemical changes. Develop an understanding of products and reactants in a chemical change.	Matter changing from state to state can be explained by using models which show that matter is composed of tiny particles in motion. When changes of state occur, the atoms and/or molecules are not changed in structure. When the changes in state occur, mass is conserved because matter is not created or destroyed.			M			BCS Assessments Teacher Assessments
P.CM.06.11		Describe and illustrate changes in state, in terms of the arrangement and relative motion of the atoms or molecules.	describe - knowledge illustrate - application		M	Describe and illustrate changes in state, in terms of the arrangement and relative motion of the atoms or molecules.	I can draw and describe the differences in particle motion in solids, liquids and gases. I can draw and describe a change from one state of matter to another state of matter (phase changes) by telling the differences between the movement of atoms and molecules (particle motion) in solids, liquids and gases.	BCS Assessments Teacher Assessments

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P.CM.06.12		Explain how mass is conserved as a substance changes from state to state in a closed system.	explain - comprehension		M	Explain how mass is conserved as a substance changes from state to state in a closed system.	I can draw and describe how the amount of mass stays the same (conserved) as a substance (like water) is changed from one state (solid, liquid, gas) to another.	BCS Assessments Teacher Assessments
LIFE SCIENCE - ORGANIZATION OF LIVING THINGS								
L.OL.M.5	Develop an understanding that plants and animals (including humans) have basic requirements for maintaining life which include the need for air, water and a source of energy. Understand that all life forms can be classified as producers, consumers, or decomposers as they are all part of a global food chain where food/energy is supplied by plants which need light to produce food/energy. Develop an understanding that plants and animals can be classified by observable traits and physical characteristics. Understand that all living organisms are composed of cells and they exhibit cell growth and division. Understand that all plants and animals have a definite life cycle, body parts, and systems to perform specific life functions.	Producers are mainly green plants that obtain energy from the sun by the process of photosynthesis. All animals, including humans, are consumers that meet their energy needs by eating other organisms or their products. Consumers break down the structures of the organisms they eat to make the materials they need to grow and function. Decomposers, including bacteria and fungi, use dead organisms or their products to meet their energy needs.*		Prereq. Vocab. community, forest, pond, producer, consumer, habitat, populations, source of energy, decomposer, lake, predator, survival, food chain, organism, prey, survive, food web, cause and effect, erosion, natural resource, soil, community, garbage, organism, survival, environment, habitat, populations, survive, environmental factors, habitat destruction				BCS Assessments Teacher Assessments
L.OL.06.51		Classify producers, consumers, and decomposers based on their source of food (the source of energy and building materials).	classify - comprehension		H	Classify producers, consumers, and decomposers based on their source of food (the source of energy and building materials).	I can identify(classify) a producer by what it uses for food. I can identify(classify) a consumer by what it uses for food. I can identify(classify) a decomposer by what it uses for food.	BCS Assessments Teacher Assessments

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L.OL.06.52		Distinguish between the ways in which consumers and decomposers obtain energy.	distinguish - comprehension		H	Distinguish between the ways in which consumers and decomposers obtain energy	I can tell the difference in the ways that consumers and decomposers get their food(energy).	BCS Assessments Teacher Assessments
ECOSYSTEMS								
L.EC.M.1	Develop an understanding of the interdependence of the variety of populations, communities and ecosystems, including those in the Great Lakes region. Develop an understanding of different types of interdependence and that biotic (living) and abiotic (non-living) factors affect the balance of an ecosystem. Understand that all organisms cause changes, some detrimental and others beneficial, in the environment where they live.	Organisms of one species form a population. Populations of different organisms interact and form communities. Living communities and nonliving factors that interact with them form ecosystems.			H			BCS Assessments Teacher Assessments
L.EC.06.11		Identify and describe examples of populations, communities, and ecosystems including the Great Lakes region.	identify - comprehension describe - knowledge		H	Identify and describe examples of populations, communities, and ecosystems including the Great Lakes region.	I can identify and describe examples of populations found in the Great Lakes region. I can identify and describe examples of communities found in the Great Lakes region. I can identify and describe examples of ecosystems found in the Great Lakes region.	BCS Assessments Teacher Assessments
L.EC.M.2		Two types of organisms may interact with one another in several ways: They may be in a producer/consumer, predator/prey, or parasite/host relationship. Some organisms may scavenge or decompose another. Relationships may be competitive or mutually benefic. Some species have become so adapted to each other that neither could survive without the other.			H			BCS Assessments Teacher Assessments
L.EC.06.21		Describe common patterns of relationships between and among populations (competition, parasitism, symbiosis, predator/prey).	describe - knowledge		H	Describe common patterns of relationships between and among populations (competition, parasitism, symbiosis, predator/prey).	I can describe how competition works in an ecosystem. I can describe how parasitism works in an ecosystem. I can describe how symbiosis works in an ecosystem. I can describe how predator/prey relationships work in an ecosystem.	BCS Assessments Teacher Assessments

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L.EC.06.22		Explain how two populations of organisms can be mutually beneficial and how that can lead to interdependency.	explain - comprehension		H	Explain how two populations of organisms can be mutually beneficial and how that can lead to interdependency.		I can explain how two populations can help each other. I can explain how when two populations help each other they can become dependent on each other.	BCS Assessments Teacher Assessments
L.EC.06.23		Predict how changes in one population might affect other populations based upon their relationships in the food web.	predict - evaluation		H	Predict how changes in one population might affect other populations based upon their relationships in the food web.		I can make predictions about how populations might affect each other in a food web.	BCS Assessments Teacher Assessments
L.EC.M.3		The number of organisms and populations an ecosystem can support depends on the biotic (living) resources available and abiotic (nonliving) factors, such as quality of light and water, range of temperatures and soil composition.			H				BCS Assessments Teacher Assessments
L.EC.06.31		Identify the living (biotic) and nonliving (abiotic) components of an ecosystem.	identify - knowledge		H	Identify the living (biotic) and nonliving (abiotic) components of an ecosystem.		I can identify the living (biotic) parts of an ecosystem. I can identify the nonliving (abiotic) parts of an ecosystem.	BCS Assessments Teacher Assessments
L.EC.06.32		Identify the factors in an ecosystem that influence changes in population size.	identify - knowledge		H	Identify the factors in an ecosystem that influence changes in population size.		I can identify things (factors) in an ecosystem that can change the size of the population.	BCS Assessments Teacher Assessments
L.EC.M.4		Environmental Impact of Organisms - All organisms (including humans) cause change in the environment where they live. Some of the changes are harmful to the organism or other organisms, whereas others are helpful.			H				BCS Assessments Teacher Assessments
L.EC.06.41		Describe how human beings are part of the ecosystem of the Earth and that human activity can purposefully, or accidentally, alter the balance in ecosystems.	describe - knowledge		H	Describe how human beings are part of the ecosystem of the Earth and that human activity can purposefully, or accidentally, alter the balance in ecosystems.		I can describe how humans are part of Earth's ecosystem. I can describe how humans can change the balance in Earth's ecosystem.	BCS Assessments Teacher Assessments

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L.EC.06.42		Predict possible consequences of overpopulation of organisms, including humans, (for example: species extinction, resource depletion, climate change, pollution).	predict - evaluation		H	Predict possible consequences of overpopulation of organisms, including humans, (for example: species extinction, resource depletion, climate change, pollution).		I can predict what might happen (consequences) if overpopulation occurs in an ecosystem.	BCS Assessments Teacher Assessments
EARTH SCIENCE - SOLID EARTH									
E.SE.M.1	Develop an understanding of the properties of earth materials and how those properties make materials useful. Understand gradual and rapid changes in earth materials and features of the surface of Earth. Understand magnetic properties of Earth.	Soils consist of weathered rocks and decomposed organic materials from dead plants, animals, and bacteria. Soils are often found in layers with each having a different chemical composition and texture.			H				BCS Assessments Teacher Assessments
E.SE.06.11		Explain how physical and chemical weathering lead to erosion and the formation of soils and sediments.	explain - comprehension		H	Explain how physical and chemical weathering lead to erosion and the formation of soils and sediments.		I can explain how physical weathering can cause erosion and the formation of soils and sediments. I can explain how chemical weathering can cause erosion and the formation of soils and sediments.	BCS Assessments Teacher Assessments
E.SE.06.12		Explain how waves, wind, water, and glacier movement, shape and reshape the land surface of the Earth by eroding rock in some areas and depositing sediments in other	explain - comprehension		H	Explain how waves, wind, water, and glacier movement, shape and reshape the land surface of the Earth by eroding rock in some areas and depositing sediments in other areas.		I can explain how waves, wind, water, and glacier movement, shape and reshape the land surface of the Earth.	BCS Assessments Teacher Assessments
E.SE.06.13		Describe how soil is a mixture, made up of weather eroded rock and decomposed organic material.	describe - knowledge		H	Describe how soil is a mixture, made up of weather eroded rock and decomposed organic material.		I can describe how soil is a mixture.	BCS Assessments Teacher Assessments
E.SE.06.14		Compare different soil samples based on particle size and texture.	compare - analysis		H	Compare different soil samples based on particle size and texture.		I can compare different soil samples based on particle size and texture (how they feel).	BCS Assessments Teacher Assessments
E.SE.M.4		Rocks and rock formations bear evidence of the minerals, materials, temperature/pressure conditions, and forces that created them.			H				BCS Assessments Teacher Assessments

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E.SE.06.41		Compare and contrast the formation of rock types (igneous, metamorphic, and sedimentary) and demonstrate the similarities and differences using the rock cycle model.	compare - analysis demonstrate - application		H	Compare and contrast the formation of rock types (igneous, metamorphic, and sedimentary) and demonstrate the similarities and differences using the rock cycle model.		I can describe igneous rock and explain how it is formed in the rock cycle. I can describe metamorphic rock and explain how it is formed in the rock cycle. I can describe sedimentary rock and explain how it is formed in the rock cycle. I can compare and contrast the formation of rock types using the rock cycle to demonstrate.	BCS Assessments Teacher Assessments
E.SE.M.5		The lithospheric plates of the Earth constantly move, resulting in major geological events, such as earthquakes, volcanic eruptions, and mountain building.			H				BCS Assessments Teacher Assessments
E.SE.06.51		Explain plate tectonic movement and how the lithospheric plates move centimeters each year.	explain - comprehension		H	Explain plate tectonic movement and how the lithospheric plates move centimeters each year.		I can explain how tectonic plates move.	BCS Assessments Teacher Assessments
E.SE.06.52		Demonstrate how major geological events (earthquakes, volcanic eruptions, mountain building) result from these plate motions.	demonstrate - application		H	Demonstrate how major geological events (earthquakes, volcanic eruptions, mountain building) result from these plate motions		I can describe the results of tectonic plate movement.	BCS Assessments Teacher Assessments
E.SE.06.53		Describe layers of the Earth as a lithosphere (crust and upper mantle), convecting mantle, and dense metallic core.	describe - knowledge		H	Describe layers of the Earth as a lithosphere (crust and upper mantle), convecting mantle, and dense metallic core.		I can describe the layers of the earth.	BCS Assessments Teacher Assessments
E.SE.M.6		Magnetic Field of Earth - Earth as a whole has a magnetic field that is detectable at the surface with a compass.			H				BCS Assessments Teacher Assessments

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E.SE.06.61		Describe the Earth as a magnet and compare the magnetic properties of the Earth to that of a natural or manufactured magnet.	describe - knowledge		H	Describe the Earth as a magnet and compare the magnetic properties of the Earth to that of a natural or manufactured magnet.	I can describe the Earth as a magnet and compare the magnetic properties of the Earth to that of a natural or manufactured magnet.	BCS Assessments Teacher Assessments
E.SE06.62		Explain how a compass works using the magnetic field of the Earth, and how a compass is used for navigation on land and sea.	explain - comprehension		H	Explain how a compass works using the magnetic field of the Earth, and how a compass is used for navigation on land and sea.	I can explain how a compass works using the magnetic field of the Earth, and how a compass is used for finding your way (navigation) on land and sea	BCS Assessments Teacher Assessments
EARTH IN SPACE AND TIME								
E.ST.M.3	Develop an understanding that the sun is the central and largest body in the solar system and that Earth and other objects in the sky move in a regular and predictable motion around the sun. Understand that those motions explain the day, year, moon phases, eclipses and the appearance of motion of objects across the sky. Understand that gravity is the force that keeps the planets in orbit around the sun and governs motion in the solar system. Develop an understanding that fossils and layers of Earth provide evidence of the history of Earth's life forms, changes over long periods of time, and theories regarding Earth's history and continental drift.	Fossils provide important evidence of how life and environmental conditions have changed in a given location.			H			BCS Assessments Teacher Assessments
E.ST.06.31		Explain how rocks and fossils are used to understand the age and geological history of the earth (timelines and relative dating, rock layers).	explain - comprehension		H	Explain how rocks and fossils are used to understand the age and geological history of the earth (timelines and relative dating, rock layers).	I can explain how rocks and fossils are used to understand the age and geological history of the earth.	BCS Assessments Teacher Assessments

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E.ST.M.4		Earth processes seen today (erosion, mountain building, and glacier movement) make possible the measurement of geologic time through methods such as observing rock sequences and using fossils to correlate the sequences at various locations.			H				BCS Assessments Teacher Assessments
E.ST.06.41		Explain how Earth processes (erosion, mountain building, and glacier movement) are used for the measurement of geologic time through observing rock layers.	explain - comprehension		H	Explain how Earth processes (erosion, mountain building, and glacier movement) are used for the measurement of geologic time through observing rock layers.		I can explain how Earth processes (erosion, mountain building, and glacier movement) are used for the measurement of geologic time.	BCS Assessments Teacher Assessments
E.ST.06.42		Describe how fossils provide important evidence of how life and environmental conditions have changed.	describe - knowledge		H	Describe how fossils provide important evidence of how life and environmental conditions have changed.		I can describe how fossils provide important evidence of how life and environmental conditions have changed	BCS Assessments Teacher Assessments