

1. Lakes

Great Lakes in My World
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Unit: Lakes

New York:
Science and
Social
Studies

Category	Area	Grade	Standard	Activities																	
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
Science	PS-2.1	P-4	Students describe the relationship among air, water, and land on Earth.		X		X	X	X				X								X
Science	PS-2.1.3	P-4	Water is recycled by natural processes on Earth.				X														
Science	PS-2.1.4	P-4	Erosion and deposition result from the interaction among air, water, and land.				X														
Science	PS-3.1	P-4	Students observe and describe properties of material using appropriate tools.		X																X
Science	PS-3.1.2	P-4	Matter has properties (color, hardness, odor, sound, taste, etc) that can be observed through the senses		X																X
Science	PS-3.1.3	P-4	Objects have properties that can be observed, described and/or measured: length, width, volume, size, shape, mass or weight, temperature, texture, reflectiveness of light		X																X
Science	PS-3.1.5	P-4	The material(s) an object is made up of determine some specific properties of the object (sink/float, conductivity, magnetism). Properties can be observed or measured with tools such as hand lenses, metric rulers, thermometers, balances, magnets, circuit testers, and graduated cylinders		X																X
Science	LE-1.1.1	P-4	Animals need air, water, and food in order to live and thrive					X				X									X
Science	LE-1.1.2	P-4	Plants require air, water, nutrients, and light in order to live and thrive				X														
Science	LE-1.2	P-4	Students describe the life processes common to all living things.					X	X			X									X
Science	LE-1.2.1	P-4	Living things grow, take in nutrients, breathe, reproduce, eliminate waste, and die					X				X									X
Science	LE-3.1	P-4	Students describe how the structures of plants and animals complement the environment of the plant or animal.					X			X										X
Science	LE-3.1.1	P-4	Each animal has different structures that serve different functions in growth, survival, and reproduction.					X			X										X
Science	LE-3.1.3	P-4	In order to survive in their environment, plants and animals must be adapted to that environment.					X			X	X		X			X				X
Science	LE-3.2	P-4	Students observe that differences within a species may give individuals an advantage in surviving and reproducing.					X									X				

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Category	Area	Grade	Standard	1	2	3	4	5	6	7	8	9	10	11	12	13	15	14	16	17
Science	LE-3.2.1	P-4	Individuals within a species may compete with each other for food, mates, space, water, and shelter in their environment					X			X	X		X		X				X
Science	LE-3.2.2	P-4	All individuals have variations, and because of these variations, individuals of a species may have an advantage in surviving and reproducing					X								X				
Science	LE-4.1	P-4	Students describe the major stages in the life cycles of selected plants and animals.									X								X
Science	LE-5.1	P-4	Students describe basic life functions of common living specimens (e.g., guppy, mealworms, gerbils).					X												X
Science	LE-5.1.1	P-4	All living things grow, take in nutrients, breathe, reproduce, and eliminate waste					X				X								X
Science	LE-5.1.2	P-4	An organism's external physical features can enable it to carry out life functions in its particular environment					X			X					X				X
Science	LE-5.2	P-4	Students describe some survival behaviors of common living specimens.					X												X
Science	LE-5.2.3	P-4	Senses can provide essential information (regarding danger, food, mates, etc.) to animals about their environment									X								X
Science	LE-5.2.4	P-4	Some animals, including humans, move from place to place to meet their needs									X								X
Science	LE-5.2.5	P-4	Particular animal characteristics are influenced by changing environmental conditions including: fat storage in winter, coat thickness in winter, camouflage, shedding of fur					X												
Science	LE-5.2.6	P-4	Some animal behaviors are influenced by environmental conditions. These behaviors may include: nest building, hibernating, hunting, migrating, and communicating					X												X
Science	LE-5.2.7	P-4	The health, growth, and development of organisms are affected by environmental conditions such as the availability of food, air, water, space, shelter, heat, and sunlight					X												
Science	LE-6.1	P-4	Students describe how plants and animals, including humans, depend upon each other and the nonliving environment.					X	X	X		X	X	X	X					X
Science	LE-6.1.1	P-4	Green plants are producers because they provide the basic food supply for themselves and animals						X	X		X	X							X
Science	LE-6.1.2	P-4	All animals depend on plants. Some animals (predators) eat other animals (prey)					X	X	X	X	X	X	X	X					X
Science	LE-6.1.3	P-4	Animals that eat plants for food may in turn become food for other animals. This sequence is called a food chain					X	X	X	X	X	X	X	X		X			X
Science	LE-6.1.4	P-4	Decomposers are living things that play a vital role in recycling nutrients						X	X		X								X
Science	LE-6.1.5	P-4	An organism's pattern of behavior is related to the nature of that organism's environment, including the kinds and numbers of other organisms present, the availability of food and other resources, and the physical characteristics of the environment					X	X	X		X		X		X				X

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Category	Area	Grade	Standard	1	2	3	4	5	6	7	8	9	10	11	12	13	15	14	16	17
Science	LE-6.1.6	P-4	When the environment changes, some plants and animals survive and reproduce, and others die or move to new locations.					X					X							
Science	LE-6.2	P-4	Students describe the relationship of the Sun as an energy source for living and nonliving cycles.						X	X		X	X		X					X
Science	LE-6.2.1	P-4	Plants manufacture food by utilizing air, water, and energy from the Sun						X	X		X	X							X
Science	LE-6.2.2	P-4	The Sun's energy is transferred on Earth from plants to animals through the food chain						X	X	X	X	X		X					X
Science	LE-7.1	P-4	Students identify ways in which humans have changed their environment and the effects of those changes.				X						X				X			
Science	LE-7.1.1	P-4	Humans depend on their natural and constructed environments				X													
Science	LE-7.1.2	P-4	Over time humans have changed their environment by cultivating crops and raising animals, creating shelter, using energy, manufacturing goods, developing means of transportation, changing populations, and carrying out other activities	X			X													X
Science	LE-7.1.3	P-4	Humans, as individuals or communities, change environments in ways that can be either helpful or harmful for themselves and other organisms				X										X			
Science	PS-2.1	5 thru 8	Students explain how the atmosphere (air), hydrosphere (water), and lithosphere (land) interact, evolve, and change.				X										X		X	
Science	PS-2.1.7	5 thru 8	The dynamic processes that wear away Earth's surface include weathering and erosion.				X												X	
Science	PS-2.1.8	5 thru 8	The process of weathering breaks down rocks to form sediment. Soil consists of sediment, organic material, water, and air.				X												X	
Science	PS-2.1.9	5 thru 8	Erosion is the transport of sediment. Gravity is the driving force behind erosion. Gravity can act directly or through agents such as moving water, wind, and glaciers.				X													
Science	PS-2.1.10	5 thru 8	Water circulates through the atmosphere, lithosphere, and hydrosphere in what is known as the water cycle.	X			X												X	
Science	PS-2.2	5 thru 8	Students describe volcano and earthquake patterns, the rock cycle, and weather and climate changes.				X												X	X
Science	PS-2.2.18	5 thru 8	Substances enter the atmosphere naturally and from human activity. Some of these substances include dust from volcanic eruptions and greenhouse gases such as carbon dioxide, methane, and water vapor. These substances can affect weather, climate, and living things.				X										X	X	X	
Science	PS-3.1	5 thru 8	Students observe and describe properties of materials, such as density, conductivity, and solubility.																X	
Science	PS-3.1.2	5 thru 8	Solubility can be affected by the nature of the solute and solvent, temperature, and pressure. The rate of solution can be affected by the size of the particles, stirring, temperature, and the amount of solute already dissolved.																X	

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Science	PS-4.1	5 thru 8	Students describe the sources and identify the transformations of energy observed in everyday life.						X	X	X	X	X		X					
Science	PS-4.5	5 thru 8	Students describe situations that support the principle of conservation of energy.						X		X	X	X		X					
Science	PS-4.5.2	5 thru 8	Energy can change from one form to another, although in the process some energy is always converted to heat. Some systems transform energy with less loss of heat than others.												X					
Science	LE-1.1	5 thru 8	Students compare and contrast the parts of plants, animals, and one-celled organisms.					X	X	X	X		X							X
Science	LE-3.1	5 thru 8	Students describe sources of variation in organisms and their structures and relate the variations to survival.					X	X	X	X			X		X				
Science	LE-3.1.2	5 thru 8	Changes in environmental conditions can affect the survival of individual organisms with a particular trait. Small differences between parents and offspring can accumulate in successive generations so that descendants are very different from their ancestors. Individual organisms with certain traits are more likely to survive and have offspring than individuals without those traits.					X								X				
Science	LE-3.2	5 thru 8	Students describe factors responsible for competition within species and the significance of that competition.					X	X	X	X	X	X	X		X				
Science	LE-3.2.1	5 thru 8	In all environments, organisms with similar needs may compete with one another for resources.					X	X	X	X	X	X	X		X				
Science	LE-3.2.2	5 thru 8	Extinction of a species occurs when the environment changes and the adaptive characteristics of a species are insufficient to permit its survival. Extinction of species is common. Fossils are evidence that a great variety of species existed in the past.											X		X	X		X	
Science	LE-4.3	5 thru 8	Students observe and describe developmental patterns in selected plants and animals (e.g., insects, frogs, humans, seed-bearing plants).					X												
Science	LE-4.3.3	5 thru 8	Various body structures and functions change as an organism goes through its life cycle.					X												
Science	LE-4.3.4	5 thru 8	Patterns of development vary among animals. In some species the young resemble the adult, while in others they do not. Some insects and amphibians undergo metamorphosis as they mature.					X												
Science	LE-4.3.6	5 thru 8	As an individual organism ages, various body structures and functions change.					X												
Science	LE-5.1	5 thru 8	Students compare the way a variety of living specimens carry out basic life functions and maintain dynamic equilibrium.					X	X											X
Science	LE-5.1.2	5 thru 8	An organism's overall body plan and its environment determine the way that the organism carries out the life processes.					X												

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Science	LE-5.1.4	5 thru 8	The methods for obtaining nutrients vary among organisms. Producers, such as green plants, use light energy to make their food. Consumers, such as animals, take in energy-rich foods.					X	X	X	X	X	X		X					X
Science	LE-5.1.5	5 thru 8	Herbivores obtain energy from plants. Carnivores obtain energy from animals. Omnivores obtain energy from both plants and animals. Decomposers, such as bacteria and fungi, obtain energy by consuming wastes and/or dead organisms.					X	X	X	X	X	X	X	X					X
Science	LE-6.1	5 thru 8	Students describe the flow of energy and matter through food chains and food webs.					X	X	X	X	X	X		X		X			X
Science	LE-6.1.1	5 thru 8	Energy flows through ecosystems in one direction, usually from the Sun, through producers to consumers and then to decomposers. This process may be visualized with food chains or energy pyramids.					X	X	X	X	X	X		X					X
Science	LE-6.1.2	5 thru 8	Food webs identify feeding relationships among producers, consumers, and decomposers in an ecosystem.					X	X	X	X	X	X	X	X	X	X			X
Science	LE-6.1.3	5 thru 8	Matter is transferred from one organism to another and between organisms and their physical environment. Water, nitrogen, carbon dioxide, and oxygen are examples of substances cycled between the living and nonliving environment.				X		X	X	X	X	X		X		X	X	X	
Science	LE-7.1	5 thru 8	Students describe how living things, including humans, depend upon the living and nonliving environment for their survival.				X	X	X	X	X	X	X	X	X		X	X	X	X
Science	LE-7.1.1	5 thru 8	A population consists of all individuals of a species that are found together at a given place and time. Populations living in one place form a community. The community and the physical factors with which it interacts compose an ecosystem.		X			X	X				X	X			X		X	
Science	LE-7.1.3	5 thru 8	In all environments, organisms interact with one another in many ways. Relationships among organisms may be competitive, harmful, or beneficial. Some species have adapted to be dependent upon each other with the result that neither could survive without the other.					X	X	X	X	X	X	X	X	X				X
Science	LE-7.1.4	5 thru 8	Some microorganisms are essential to the survival of other living things.					X		X		X	X		X					X
Science	LE-7.1.5	5 thru 8	The environment may contain dangerous levels of substances (pollutants) that are harmful to organisms. Therefore, the good health of environments and individuals requires the monitoring of soil, air, and water, and taking steps to keep them safe.				X										X	X	X	
Science	LE-7.2	5 thru 8	Students describe the effects of environmental changes on humans and other populations.	X	X		X	X						X			X	X	X	
Science	LE-7.2.1	5 thru 8	In ecosystems, balance is the result of interactions between community members and their environment.		X			X	X			X	X	X	X	X				X

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Science	LE-7.2.2	5 thru 8	The environment may be altered through the activities of organisms. Alterations are sometimes abrupt. Some species may replace others over time, resulting in long - term gradual changes (ecological succession).					X						X		X				
Science	LE-7.2.3	5 thru 8	Overpopulation by any species impacts the environment due to the increased use of resources. Human activities can bring about environmental degradation through resource acquisition, urban growth, land-use decisions, waste disposal, etc.				X	X			X		X	X		X				
Science	LE-7.2.4	5 thru 8	Since the Industrial Revolution, human activities have resulted in major pollution of air, water, and soil. Pollution has cumulative ecological effects such as acid rain, global warming, or ozone depletion. The survival of living things on our planet depends on the conservation and protection of Earth's resources.				X										X	X	X	
Social Studies	S3.1B	Elem	Students draw maps and diagrams that serve as representations of places, physical features, and objects.		X	X	X	X												X
Social Studies	S3.1C	Elem	Students locate places within the local community, State, and nation; locate the Earth's continents in relation to each other and to principal parallels and meridians.		X	X	X													
Social Studies	S3.1E	Elem	Students investigate how people depend on and modify the physical environment.				X													
Social Studies	S3.2A	Elem	Students ask geographic questions about where places are located; why they are located where they are; what is important about their location of other people and places.		X	X	X							X						X
Social Studies	S3.2B	Elem	Students gather and organize geographic information from a variety of sources and display in a number of ways		X	X	X													X
Social Studies	S3.2C	Elem	Students analyze geographic information by making relationships, interpreting trends and relationships, and analyzing geographic data.			X	X													
Social Studies	S5.4A	Elem	Students show a willingness to consider other points of view before drawing conclusions or making judgements.	X																
Social Studies	S5.4B	Elem	Students participate in activities that focus on a classroom, school, or community issue or problem.	X			X					X		X		X	X			X
Social Studies	S5.4C	Elem	Students suggest alternative solutions or courses of action to hypothetical or historic problems.													X	X			
Social Studies	S5.4D	Elem	Students evaluate the consequences for each alternative solution or course of action.									X				X				X
Social Studies	S3.1A	Interm	Students map information about people, places, and environments.		X	X	X													
Social Studies	S3.1C	Interm	Students investigate why people and places are located where they are located and what patterns can be perceived in these places.			X														

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Social Studies	S3.1D	Interm	Students describe the relationships between people and environments and the connections between people and places.			X	X							X						X	
Social Studies	S3.2B	Interm	Students use a number of research skills; (e.g., computer databases, periodicals, census reports, maps, standard reference works, interviews, surveys) to locate and gather geographical information about issues and problems.			X	X													X	
Social Studies	S3.2C	Interm	Students present geographic information in a variety of formats, including maps, tables, graphs, charts, diagrams, and computer-generated models.		X	X	X														
Social Studies	S3.2D	Interm	Students interpret geographic information synthesizing data and developing conclusions and generalizations about geographic issues and problems.				X														
Social Studies	S5.3C	Interm	Students discuss the role of an informed citizen in today's changing world.																		X
Social Studies	S5.4C	Interm	Students participate in negotiation and compromise to resolve classroom, school, and community disagreements and problems.																		X

2. Sand Dunes

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Category	Area	Grade	Standard	Activities															
				1	2	3	4	5	6	8	7	9	10	11	12	13	14	15	
Science	PS-2.1	P-4	Students describe the relationship among air, water, and land on Earth.	X		X	X	X	X			X		X	X		X	X	
Science	PS-2.1.4	P-4	Erosion and deposition result from the interaction among air, water, and land.			X		X	X						X				
Science	PS-3.1	P-4	Students observe and describe properties of material using appropriate tools.				X										X		
Science	PS-3.2.3	P-4	Changes in the properties or materials of objects can be observed and described				X										X		
Science	LE-1.1.1	P-4	Animals need air, water, and food in order to live and thrive				X										X		
Science	LE-1.1.2	P-4	Plants require air, water, nutrients, and light in order to live and thrive				X										X		
Science	LE-1.2.1	P-4	Living things grow, take in nutrients, breathe, reproduce, eliminate waste, and die				X										X		
Science	LE-3.1	P-4	Students describe how the structures of plants and animals complement the environment of the plant or animal.				X			X	X	X					X	X	
Science	LE-3.1.1	P-4	Each animal has different structures that serve different functions in growth, survival, and reproduction.				X			X	X						X	X	
Science	LE-3.1.2	P-4	Each plant has different structures that serve different functions in growth, survival, and reproduction.				X				X						X	X	
Science	LE-3.1.3	P-4	In order to survive in their environment, plants and animals must be adapted to that environment.	X			X			X		X	X	X			X	X	
Science	LE-3.2	P-4	Students observe that differences within a species may give individuals an advantage in surviving and reproducing.				X										X		
Science	LE-3.2.1	P-4	Individuals within a species may compete with each other for food, mates, space, water, and shelter in their environment				X			X	X						X		
Science	LE-3.2.2	P-4	All individuals have variations, and because of these variations, individuals of a species may have an advantage in surviving and reproducing				X										X		
Science	LE-4.1.2	P-4	Each kind of plant goes through its own stages of growth and development that may include seed, young plant, and mature plant				X										X		

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Science	LE-5.1.1	P-4	All living things grow, take in nutrients, breathe, reproduce, and eliminate waste				X									X		
Science	LE-5.1.2	P-4	An organism's external physical features can enable it to carry out life functions in its particular environment				X			X	X					X	X	
Science	LE-5.2	P-4	Students describe some survival behaviors of common living specimens.				X				X					X	X	
Science	LE-5.2.1	P-4	Plants respond to changes in their environment. For example, the leaves of some green plants change position as the direction of light changes; the parts of some plants undergo seasonal changes that enable the plant to grow; seeds germinate, and leaves form and grow				X									X		
Science	LE-5.2.4	P-4	Some animals, including humans, move from place to place to meet their needs				X											
Science	LE-5.2.6	P-4	Some animal behaviors are influenced by environmental conditions. These behaviors may include: nest building, hibernating, hunting, migrating, and communicating				X				X					X		
Science	LE-5.2.7	P-4	The health, growth, and development of organisms are affected by environmental conditions such as the availability of food, air, water, space, shelter, heat, and sunlight				X						X	X		X	X	
Science	LE-6.1	P-4	Students describe how plants and animals, including humans, depend upon each other and the nonliving environment.				X			X	X			X		X	X	
Science	LE-6.1.1	P-4	Green plants are producers because they provide the basic food supply for themselves and animals				X									X		
Science	LE-6.1.2	P-4	All animals depend on plants. Some animals (predators) eat other animals (prey)				X									X	X	
Science	LE-6.1.3	P-4	Animals that eat plants for food may in turn become food for other animals. This sequence is called a food chain				X									X	X	
Science	LE-6.1.4	P-4	Decomposers are living things that play a vital role in recycling nutrients				X									X		
Science	LE-6.1.5	P-4	An organism's pattern of behavior is related to the nature of that organism's environment, including the kinds and numbers of other organisms present, the availability of food and other resources, and the physical characteristics of the environment				X				X					X		
Science	LE-6.1.6	P-4	When the environment changes, some plants and animals survive and reproduce, and others die or move to new locations.				X							X		X	X	
Science	LE-6.2	P-4	Students describe the relationship of the Sun as an energy source for living and nonliving cycles.													X	X	
Science	LE-6.2.1	P-4	Plants manufacture food by utilizing air, water, and energy from the Sun				X									X		
Science	LE-6.2.2	P-4	The Sun's energy is transferred on Earth from plants to animals through the food chain													X	X	
Science	LE-7.1	P-4	Students identify ways in which humans have changed their environment and the effects of those changes.	X			X							X	X	X	X	
Science	LE-7.1.1	P-4	Humans depend on their natural and constructed environments	X			X							X		X		

2. Sand Dunes

Category	Area	Grade	Standard	1	2	3	4	5	6	8	7	9	10	11	12	13	14	15
Science	LE-7.1.2	P-4	Over time humans have changed their environment by cultivating crops and raising animals, creating shelter, using energy, manufacturing goods, developing means of transportation, changing populations, and carrying out other activities	X			X								X	X		X
Science	LE-7.1.3	P-4	Humans, as individuals or communities, change environments in ways that can be either helpful or harmful for themselves and other organisms	X	X		X							X	X	X		X
Science	PS-2.1	5 thru 8	Students explain how the atmosphere (air), hydrosphere (water), and lithosphere (land) interact, evolve, and change.	X		X		X	X	X	X		X	X				
Science	PS-2.1.7	5 thru 8	The dynamic processes that wear away Earth's surface include weathering and erosion.		X			X	X					X	X			
Science	PS-2.1.8	5 thru 8	The process of weathering breaks down rocks to form sediment. Soil consists of sediment, organic material, water, and air.					X		X			X					
Science	PS-2.1.9	5 thru 8	Erosion is the transport of sediment. Gravity is the driving force behind erosion. Gravity can act directly or through agents such as moving water, wind, and glaciers.						X									
Science	PS-2.2	5 thru 8	Students describe volcano and earthquake patterns, the rock cycle, and weather and climate changes.					X	X									
Science	PS-3.1	5 thru 8	Students observe and describe properties of materials, such as density, conductivity, and solubility.		X			X										
Science	LE-3.1	5 thru 8	Students describe sources of variation in organisms and their structures and relate the variations to survival.				X			X	X	X	X				X	X
Science	LE-3.1.2	5 thru 8	Changes in environmental conditions can affect the survival of individual organisms with a particular trait. Small differences between parents and offspring can accumulate in successive generations so that descendants are very different from their ancestors. Individual organisms with certain traits are more likely to survive and have offspring than individuals without those traits.			X	X			X	X	X	X				X	X
Science	LE-3.2	5 thru 8	Students describe factors responsible for competition within species and the significance of that competition.				X			X	X	X					X	
Science	LE-3.2.1	5 thru 8	In all environments, organisms with similar needs may compete with one another for resources.				X			X	X	X		X			X	
Science	LE-3.2.2	5 thru 8	Extinction of a species occurs when the environment changes and the adaptive characteristics of a species are insufficient to permit its survival. Extinction of species is common. Fossils are evidence that a great variety of species existed in the past.				X			X	X	X		X			X	
Science	LE-4.3	5 thru 8	Students observe and describe developmental patterns in selected plants and animals (e.g., insects, frogs, humans, seed-bearing plants).				X				X	X					X	
Science	LE-4.3.3	5 thru 8	Various body structures and functions change as an organism goes through its life cycle.				X				X	X					X	

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Category	Area	Grade	Standard	1	2	3	4	5	6	8	7	9	10	11	12	13	14	15	
Science	LE-4.3.4	5 thru 8	Patterns of development vary among animals. In some species the young resemble the adult, while in others they do not. Some insects and amphibians undergo metamorphosis as they mature.				X												
Science	LE-4.3.6	5 thru 8	As an individual organism ages, various body structures and functions change.				X					X						X	
Science	LE-5.1	5 thru 8	Students compare the way a variety of living specimens carry out basic life functions and maintain dynamic equilibrium.				X			X	X	X	X					X	X
Science	LE-5.1.2	5 thru 8	An organism's overall body plan and its environment determine the way that the organism carries out the life processes.				X			X	X	X						X	
Science	LE-5.1.4	5 thru 8	The methods for obtaining nutrients vary among organisms. Producers, such as green plants, use light energy to make their food. Consumers, such as animals, take in energy-rich foods.				X			X	X	X	X					X	
Science	LE-5.1.5	5 thru 8	Herbivores obtain energy from plants. Carnivores obtain energy from animals. Omnivores obtain energy from both plants and animals. Decomposers, such as bacteria and fungi, obtain energy by consuming wastes and/or dead organisms.				X			X	X	X						X	
Science	LE-7.1	5 thru 8	Students describe how living things, including humans, depend upon the living and nonliving environment for their survival.		X		X			X	X	X	X	X	X			X	X
Science	LE-7.1.1	5 thru 8	A population consists of all individuals of a species that are found together at a given place and time. Populations living in one place form a community. The community and the physical factors with which it interacts compose an ecosystem.				X			X	X	X	X	X				X	X
Science	LE-7.1.3	5 thru 8	In all environments, organisms interact with one another in many ways. Relationships among organisms may be competitive, harmful, or beneficial. Some species have adapted to be dependent upon each other with the result that neither could survive without the other.				X			X	X	X		X				X	
Science	LE-7.1.5	5 thru 8	The environment may contain dangerous levels of substances (pollutants) that are harmful to organisms. Therefore, the good health of environments and individuals requires the monitoring of soil, air, and water, and taking steps to keep them safe.											X				X	X
Science	LE-7.2	5 thru 8	Students describe the effects of environmental changes on humans and other populations.											X	X				
Science	LE-7.2.1	5 thru 8	In ecosystems, balance is the result of interactions between community members and their environment.							X		X	X	X	X			X	X
Science	LE-7.2.2	5 thru 8	The environment may be altered through the activities of organisms. Alterations are sometimes abrupt. Some species may replace others over time, resulting in long - term gradual changes (ecological succession).			X			X	X				X					
Science	LE-7.2.3	5 thru 8	Overpopulation by any species impacts the environment due to the increased use of resources. Human activities can bring about environmental degradation through resource acquisition, urban growth, land-use decisions, waste disposal, etc.											X	X				X

2. Sand Dunes

Category	Area	Grade	Standard	1	2	3	4	5	6	8	7	9	10	11	12	13	14	15
Science	LE-7.2.4	5 thru 8	Since the Industrial Revolution, human activities have resulted in major pollution of air, water, and soil. Pollution has cumulative ecological effects such as acid rain, global warming, or ozone depletion. The survival of living things on our planet depends on the conservation and protection of Earth's resources.											X				X
Social Studies	S3.1B	Elem	Students draw maps and diagrams that serve as representations of places, physical features, and objects.			X										X		
Social Studies	S3.1C	Elem	Students locate places within the local community, State, and nation; locate the Earth's continents in relation to each other and to principal parallels and meridians.			X												
Social Studies	S3.1E	Elem	Students investigate how people depend on and modify the physical environment.											X				
Social Studies	S3.2A	Elem	Students ask geographic questions about where places are located; why they are located where they are; what is important about their location of other people and places.	X			X									X		
Social Studies	S4.1A	Elem	Students know some ways individuals and groups attempt to satisfy their basic needs and wants by utilizing scarce resources.				X									X		
Social Studies	S4.1B	Elem	Students explain how people's wants exceed their limited resources and that this condition defines scarcity.	X			X							X		X		
Social Studies	S4.1C	Elem	Students know that scarcity requires individuals to make choices and that these choices involves costs.											X	X			X
Social Studies	S5.4A	Elem	Students show a willingness to consider other points of view before drawing consider other points of view before drawing conclusions or making judgements.											X	X			X
Social Studies	S5.4B	Elem	Students participate in activities that focus on a classroom, school, or community issue or problem.											X	X			X
Social Studies	S5.4C	Elem	Students suggest alternative solutions or courses of action to hypothetical or historic problems.											X	X			X
Social Studies	S5.4D	Elem	Students evaluate the consequences for each alternative solution or course of action.											X	X			X
Social Studies	S5.4F	Elem	Students propose an action plan to address the issue of how to solve the problem.											X				X
Social Studies	S3.1A	Interm	Students map information about people, places, and environments.			X												
Social Studies	S3.1C	Interm	Students investigate why people and places are located where they are located and what patterns can be perceived in these places.			X												
Social Studies	S3.1D	Interm	Students describe the relationships between people and environments and the connections between people and places.		X									X	X		X	X
Social Studies	S3.2B	Interm	Students use a number of research skills; (e.g., computer databases, periodicals, census reports, maps, standard reference works, interviews, surveys) to locate and gather geographical information about issues and problems.											X	X			

2. Sand Dunes

Category	Area	Grade	Standard	1	2	3	4	5	6	8	7	9	10	11	12	13	14	15
Social Studies	S3.2C	Interm	Students present geographic information in a variety of formats, including maps, tables, graphs, charts, diagrams, and computer-generated models.											X	X			
Social Studies	S3.2D	Interm	Students interpret geographic information synthesizing data and developing conclusions and generalizations about geographic issues and problems.											X	X			
Social Studies	S4.1A	Interm	Students explain how societies and nations attempt to satisfy their basic needs and wants utilizing scarce capital, natural, and human resources.											X	X			
Social Studies	S5.4C	Interm	Students participate in negotiation and compromise to resolve classroom, school, and community disagreements and problems.											X	X			

3. Wetlands

Great Lakes in My World
Unit: **Wetlands**
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New York:
Science and
Social Studies

Category	Area	Grade	Standard	Activities													
				K-4 Wetland Alphabet	K-2 Wetland Song	4-8 Mud Painting	4-8 Groundwater Exploration	4-8 Value of Wetlands	K-8 Wetland Observation	K-3 Bugs In The Mud	4-8 Critical Critters	3-6 Living Life Cycles	4-8 Name that Plant	4-8 Working Wetlands	4-8 Mini Wetland	4-8 Teaching About Wetlands	
				1	2	3	4	5	6	7	8	9	10	11	12	13	
Science	PS-2.1	P-4	Students describe the relationship among air, water, and land on Earth.	X	X	X	X	X	X				X		X	X	X
Science	PS-2.1.3	P-4	Water is recycled by natural processes on Earth.	X			X	X	X			X		X	X	X	X
Science	PS-2.1.4	P-4	Erosion and deposition result from the interaction among air, water, and land.	X				X	X					X	X		
Science	PS-3.1	P-4	Students observe and describe properties of material using appropriate tools.	X					X	X							
Science	PS-3.1.2	P-4	Matter has properties (color, hardness, odor, sound, taste, etc) that can be observed through the senses.						X								
Science	PS-3.1.3	P-4	Objects have properties that can be observed, described and/or measured: length, width, volume, size, shape, mass or weight, temperature, texture, reflectiveness of light.						X								
Science	LE-1.1	P-4	Students describe the characteristics of and variations between living and nonliving things.	X					X	X							
Science	LE-1.1.1	P-4	Animals need air, water, and food in order to live and thrive	X		X			X	X						X	X
Science	LE-1.1.2	P-4	Plants require air, water, nutrients, and light in order to live and thrive	X		X			X	X						X	X
Science	LE-1.1.3	P-4	Nonliving things do not live and thrive	X					X	X							
Science	LE-1.1.4	P-4	Nonliving things can be human-created or naturally occurring	X					X	X							
Science	LE-1.2	P-4	Students describe the life processes common to all living things.	X													
Science	LE-1.2.1	P-4	Living things grow, take in nutrients, breathe, reproduce, eliminate waste, and die	X					X	X							
Science	LE-3.1	P-4	Students describe how the structures of plants and animals complement the environment of the plant or animal.	X		X		X	X	X				X	X		
Science	LE-3.1.1	P-4	Each animal has different structures that serve different functions in growth, survival, and reproduction.	X				X	X	X						X	
Science	LE-3.1.2	P-4	Each plant has different structures that serve different functions in growth, survival, and reproduction.		X			X	X				X	X	X		
Science	LE-3.1.3	P-4	In order to survive in their environment, plants and animals must be adapted to that environment.	X		X			X	X					X	X	
Science	LE-3.2	P-4	Students observe that differences within a species may give individuals an advantage in surviving and reproducing.	X					X	X							

3. Wetlands

Category	Area	Grade	Standard	1	2	3	4	5	6	7	8	9	10	11	12	13
Science	LE-3.2.1	P-4	Individuals within a species may compete with each other for food, mates, space, water, and shelter in their environment.	X												
Science	LE-3.2.2	P-4	All individuals have variations, and because of these variations, individuals of a species may have an advantage in surviving and reproducing.	X												
Science	LE-4.1	P-4	Students describe the major stages in the life cycles of selected plants and animals.									X				
Science	LE-4.1.1	P-4	Plants and animals have life cycles. These may include beginning of a life, developing into an adult, reproduction as an adult, and eventually death.						X			X	X			
Science	LE-4.1.2	P-4	Each kind of plant goes through its own stages of growth and development that may include seed, young plant, and mature plant.						X				X			
Science	LE-4.1.4	P-4	Life cycles of some plants include changes from seed to mature plant										X			
Science	LE-4.1.5	P-4	Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult.									X				
Science	LE-4.1.6	P-4	Each kind of animal goes through its own stages of growth and development during its life span.									X				
Science	LE-5.1.1	P-4	All living things grow, take in nutrients, breathe, reproduce, and eliminate waste	X					X	X						
Science	LE-5.1.2	P-4	An organism's external physical features can enable it to carry out life functions in its particular environment.						X	X						
Science	LE-5.2	P-4	Students describe some survival behaviors of common living specimens.	X						X						
Science	LE-5.2.1	P-4	Plants respond to changes in their environment. For example, the leaves of some green plants change position as the direction of light changes; the parts of some plants undergo seasonal changes that enable the plant to grow; seeds germinate, and leaves form and grow.	X									X			
Science	LE-5.2.3	P-4	Senses can provide essential information (regarding danger, food, mates, etc.) to animals about their environment.							X						
Science	LE-5.2.6	P-4	Some animal behaviors are influenced by environmental conditions. These behaviors may include: nest building, hibernating, hunting, migrating, and communicating.	X					X							
Science	LE-5.2.7	P-4	The health, growth, and development of organisms are affected by environmental conditions such as the availability of food, air, water, space, shelter, heat, and sunlight.	X					X						X	X
Science	LE-6.1	P-4	Students describe how plants and animals, including humans, depend upon each other and the nonliving environment.	X		X			X	X		X		X	X	X
Science	LE-6.1.1	P-4	Green plants are producers because they provide the basic food supply for themselves and animals.	X					X					X		
Science	LE-6.1.2	P-4	All animals depend on plants. Some animals (predators) eat other animals (prey).							X					X	X
Science	LE-6.1.3	P-4	Animals that eat plants for food may in turn become food for other animals. This sequence is called a food chain.	X					X	X						X
Science	LE-6.1.4	P-4	Decomposers are living things that play a vital role in recycling nutrients.	X					X	X				X	X	X

3. Wetlands

Category	Area	Grade	Standard	1	2	3	4	5	6	7	8	9	10	11	12	13
Science	LE-6.1.5	P-4	An organism's pattern of behavior is related to the nature of that organism's environment, including the kinds and numbers of other organisms present, the availability of food and other resources, and the physical characteristics of the environment.						X	X						
Science	LE-6.1.6	P-4	When the environment changes, some plants and animals survive and reproduce, and others die or move to new locations.	X												
Science	LE-6.2.1	P-4	Plants manufacture food by utilizing air, water, and energy from the Sun.						X						X	
Science	LE-6.2.2	P-4	The Sun's energy is transferred on Earth from plants to animals through the food chain.													
Science	LE-7.1	P-4	Students identify ways in which humans have changed their environment and the effects of those changes.	X				X							X	X
Science	LE-7.1.1	P-4	Humans depend on their natural and constructed environments.	X				X								X
Science	LE-7.1.2	P-4	Over time humans have changed their environment by cultivating crops and raising animals, creating shelter, using energy, manufacturing goods, developing means of transportation, changing populations, and carrying out other activities.	X					X	X						
Science	LE-7.1.3	P-4	Humans, as individuals or communities, change environments in ways that can be either helpful or harmful for themselves and other organisms.	X					X	X	X				X	X
Science	PS-2.1	5 thru 8	Students explain how the atmosphere (air), hydrosphere (water), and lithosphere (land) interact, evolve, and change.			X	X	X	X			X		X	X	X
Science	PS-2.1.7	5 thru 8	The dynamic processes that wear away Earth's surface include weathering and erosion.					X	X					X	X	
Science	PS-2.1.8	5 thru 8	The process of weathering breaks down rocks to form sediment. Soil consists of sediment, organic material, water, and air.					X	X					X	X	
Science	PS-2.1.9	5 thru 8	Erosion is the transport of sediment. Gravity is the driving force behind erosion. Gravity can act directly or through agents such as moving water, wind, and glaciers.				X	X	X					X	X	
Science	PS-2.1.10	5 thru 8	Water circulates through the atmosphere, lithosphere, and hydrosphere in what is known as the water cycle.				X	X	X					X	X	X
Science	PS-3.1	5 thru 8	Students observe and describe properties of materials, such as density, conductivity, and solubility.			X	X	X						X	X	
Science	PS-3.1.7	5 thru 8	Characteristic properties can be used to identify different materials, and separate a mixture of substances into its components. For example, iron can be removed from a mixture by means of a magnet. An insoluble substance can be separated from a soluble substance by such processes as filtration, settling, and evaporation.				X	X						X	X	
Science	LE-1.1	5 thru 8	Students compare and contrast the parts of plants, animals, and one-celled organisms.						X	X	X	X	X			
Science	LE-1.1.7	5 thru 8	Living things are classified by shared characteristics on the cellular and organism level. In classifying organisms; biologists consider details of internal and external structures. Biological classification systems are arranged from general (kingdom) to specific (species).										X			

3. Wetlands

Category	Area	Grade	Standard	1	2	3	4	5	6	7	8	9	10	11	12	13
Science	LE-3.1	5 thru 8	Students describe sources of variation in organisms and their structures and relate the variations to survival.						X	X	X	X	X			
Science	LE-3.1.2	5 thru 8	Changes in environmental conditions can affect the survival of individual organisms with a particular trait. Small differences between parents and offspring can accumulate in successive generations so that descendants are very different from their ancestors. Individual organisms with certain traits are more likely to survive and have offspring than individuals without those traits.							X	X	X				
Science	LE-3.2	5 thru 8	Students describe factors responsible for competition within species and the significance of that competition.						X	X	X	X				
Science	LE-3.2.1	5 thru 8	In all environments, organisms with similar needs may compete with one another for resources.						X	X	X	X				
Science	LE-3.2.2	5 thru 8	Extinction of a species occurs when the environment changes and the adaptive characteristics of a species are insufficient to permit its survival. Extinction of species is common. Fossils are evidence that a great variety of species existed in the past.						X							X
Science	LE-4.3	5 thru 8	Students observe and describe developmental patterns in selected plants and animals (e.g., insects, frogs, humans, seed-bearing plants).						X	X	X	X	X			
Science	LE-4.3.3	5 thru 8	Various body structures and functions change as an organism goes through its life cycle.						X	X	X	X	X			
Science	LE-4.3.4	5 thru 8	Patterns of development vary among animals. In some species the young resemble the adult, while in others they do not. Some insects and amphibians undergo metamorphosis as they mature.									X				
Science	LE-4.3.6	5 thru 8	As an individual organism ages, various body structures and functions change.									X	X			
Science	LE-5.1	5 thru 8	Students compare the way a variety of living specimens carry out basic life functions and maintain dynamic equilibrium.						X			X			X	X
Science	LE-5.1.2	5 thru 8	An organism's overall body plan and its environment determine the way that the organism carries out the life processes.						X	X	X	X	X			
Science	LE-5.1.4	5 thru 8	The methods for obtaining nutrients vary among organisms. Producers, such as green plants, use light energy to make their food. Consumers, such as animals, take in energy-rich foods.												X	X
Science	LE-5.1.5	5 thru 8	Herbivores obtain energy from plants. Carnivores obtain energy from animals. Omnivores obtain energy from both plants and animals. Decomposers, such as bacteria and fungi, obtain energy by consuming wastes and/or dead organisms.						X	X	X	X	X		X	X
Science	LE-6.1	5 thru 8	Students describe the flow of energy and matter through food chains and food webs.						X						X	
Science	LE-6.1.2	5 thru 8	Food webs identify feeding relationships among producers, consumers, and decomposers in an ecosystem.						X	X	X	X	X		X	

3. Wetlands

Category	Area	Grade	Standard	1	2	3	4	5	6	7	8	9	10	11	12	13
Science	LE-6.1.3	5 thru 8	Matter is transferred from one organism to another and between organisms and their physical environment. Water, nitrogen, carbon dioxide, and oxygen are examples of substances cycled between the living and nonliving environment.						X					X	X	X
Science	LE-7.1	5 thru 8	Students describe how living things, including humans, depend upon the living and nonliving environment for their survival.			X		X	X	X	X	X	X		X	X
Science	LE-7.1.1	5 thru 8	A population consists of all individuals of a species that are found together at a given place and time. Populations living in one place form a community. The community and the physical factors with which it interacts compose an ecosystem.					X	X	X	X	X	X		X	X
Science	LE-7.1.3	5 thru 8	In all environments, organisms interact with one another in many ways. Relationships among organisms may be competitive, harmful, or beneficial. Some species have adapted to be dependent upon each other with the result that neither could survive without the other.						X	X	X	X	X		X	X
Science	LE-7.1.4	5 thru 8	Some microorganisms are essential to the survival of other living things.											X	X	X
Science	LE-7.1.5	5 thru 8	The environment may contain dangerous levels of substances (pollutants) that are harmful to organisms. Therefore, the good health of environments and individuals requires the monitoring of soil, air, and water, and taking steps to keep them safe.				X	X			X			X	X	X
Science	LE-7.2	5 thru 8	Students describe the effects of environmental changes on humans and other populations.												X	X
Science	LE-7.2.1	5 thru 8	In ecosystems, balance is the result of interactions between community members and their environment.											X		X
Science	LE-7.2.3	5 thru 8	Overpopulation by any species impacts the environment due to the increased use of resources. Human activities can bring about environmental degradation through resource acquisition, urban growth, land-use decisions, waste disposal, etc.													X
Science	LE-7.2.4	5 thru 8	Since the Industrial Revolution, human activities have resulted in major pollution of air, water, and soil. Pollution has cumulative ecological effects such as acid rain, global warming, or ozone depletion. The survival of living things on our planet depends on the conservation and protection of Earth's resources.				X	X			X			X	X	X
Social Studies	S3.1B	Elem	Students draw maps and diagrams that serve as representations of places, physical features, and objects.	X			X	X	X	X						
Social Studies	S3.1C	Elem	Students locate places within the local community, State, and nation; locate the Earth's continents in relation to each other and to principal parallels and meridians.				X									
Social Studies	S3.1E	Elem	Students investigate how people depend on and modify the physical environment.	X											X	X
Social Studies	S3.2A	Elem	Students ask geographic questions about where places are located; why they are located where they are; what is important about their location of other people and places.	X			X	X								X

3. Wetlands

Category	Area	Grade	Standard	1	2	3	4	5	6	7	8	9	10	11	12	13
Social Studies	S3.2C	Elem	Students analyze geographic information by making relationships, interpreting trends and relationships, and analyzing geographic data.				X	X	X							
Social Studies	S4.1A	Elem	Students know some ways individuals and groups attempt to satisfy their basic needs and wants by utilizing scarce resources.												X	
Social Studies	S5.4B	Elem	Students participate in activities that focus on a classroom, school, or community issue or problem.	X					X						X	X
Social Studies	S5.4C	Elem	Students suggest alternative solutions or courses of action to hypothetical or historic problems.												X	X
Social Studies	S5.4D	Elem	Students evaluate the consequences for each alternative solution or course of action.												X	X
Social Studies	S5.4E	Elem	Students prioritize the solutions based on established criteria.												X	X
Social Studies	S5.4F	Elem	Students propose an action plan to address the issue of how to solve the problem.												X	X
Social Studies	S3.1C	Interm	Students investigate why people and places are located where they are located and what patterns can be perceived in these places.				X									
Social Studies	S3.1D	Interm	Students describe the relationships between people and environments and the connections between people and places.				X	X	X						X	X
Social Studies	S3.2B	Interm	Students use a number of research skills; (e.g., computer databases, periodicals, census reports, maps, standard reference works, interviews, surveys) to locate and gather geographical information about issues and problems.				X									X
Social Studies	S3.2C	Interm	Students present geographic information in a variety of formats, including maps, tables, graphs, charts, diagrams, and computer-generated models.				X	X	X							X
Social Studies	S3.2D	Interm	Students interpret geographic information synthesizing data and developing conclusions and generalizations about geographic issues and problems.													X
Social Studies	S4.1A	Interm	Students explain how societies and nations attempt to satisfy their basic needs and wants utilizing scarce capital, natural, and human resources.													X
Social Studies	S5.3C	Interm	Students discuss the role of an informed citizen in today's changing world.													X
Social Studies	S5.4C	Interm	Students participate in negotiation and compromise to resolve classroom, school, and community disagreements and problems.													X

4. Human Communities

Great Lakes in My World
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Unit: Human Communities

New York:
Science and
Social Studies

Category	Area	Grade	Standard	Activities											
				4-8 1	3-6 2	K-4 3	K-4 4	4-8 5	3-6 6	4-8 7	4-8 8	4-8 9	4-8 10	K-3 11	4-8 12
Science	PS-2.1	P-4	Students describe the relationship among air, water, and land on Earth.	X		X	X				X	X		X	
Science	PS-2.1.3	P-4	Water is recycled by natural processes on Earth.				X				X	X	X		
Science	PS-2.1.4	P-4	Erosion and deposition result from the interaction among air, water, and land.			X	X								
Science	PS-3.1	P-4	Students observe and describe properties of material using appropriate tools.				X					X		X	
Science	PS-3.1.3	P-4	Objects have properties that can be observed, described and/or measured: length, width, volume, size, shape, mass or weight, temperature, texture, reflectiveness of light											X	
Science	PS-3.1.4	P-4	Measurements can be made with standard metric units and non-standard units. (Note: Exceptions to the metric system usage are found in meteorology.)											X	
Science	LE-1.1	P-4	Students describe the characteristics of and variations between living and nonliving things.			X	X								
Science	LE-1.1.1	P-4	Animals need air, water, and food in order to live and thrive			X	X								
Science	LE-1.1.2	P-4	Plants require air, water, nutrients, and light in order to live and thrive			X	X								
Science	LE-1.1.3	P-4	Nonliving things do not live and thrive			X	X								
Science	LE-1.1.4	P-4	Nonliving things can be human-created or naturally occurring			X	X								
Science	LE-1.2	P-4	Students describe the life processes common to all living things.			X	X								
Science	LE-1.2.1	P-4	Living things grow, take in nutrients, breathe, reproduce, eliminate waste, and die			X	X								
Science	LE-3.1	P-4	Students describe how the structures of plants and animals complement the environment of the plant or animal.				X								
Science	LE-3.1.1	P-4	Each animal has different structures that serve different functions in growth, survival, and reproduction.				X								
Science	LE-3.1.2	P-4	Each plant has different structures that serve different functions in growth, survival, and reproduction.				X								

4. Human Communities

Category	Area	Grade	Standard	1	2	3	4	5	6	7	8	9	10	11	12
Science	LE-3.1.3	P-4	In order to survive in their environment, plants and animals must be adapted to that environment.			X	X								X
Science	LE-3.2	P-4	Students observe that differences within a species may give individuals an advantage in surviving and reproducing.				X								
Science	LE-3.2.1	P-4	Individuals within a species may compete with each other for food, mates, space, water, and shelter in their environment				X								
Science	LE-3.2.2	P-4	All individuals have variations, and because of these variations, individuals of a species may have an advantage in surviving and reproducing				X								
Science	LE-4.1.1	P-4	Plants and animals have life cycles. These may include beginning of a life, developing into an adult, reproduction as an adult, and eventually death				X								
Science	LE-4.1.2	P-4	Each kind of plant goes through its own stages of growth and development that may include seed, young plant, and mature plant				X								
Science	LE-4.1.4	P-4	Life cycles of some plants include changes from seed to mature plant				X								
Science	LE-5.1	P-4	Students describe basic life functions of common living specimens (e.g., guppy, mealworms, gerbils).				X								
Science	LE-5.1.1	P-4	All living things grow, take in nutrients, breathe, reproduce, and eliminate waste				X								
Science	LE-5.1.2	P-4	An organism's external physical features can enable it to carry out life functions in its particular environment			X	X								
Science	LE-5.2.1	P-4	Plants respond to changes in their environment. For example, the leaves of some green plants change position as the direction of light changes; the parts of some plants undergo seasonal changes that enable the plant to grow; seeds germinate, and leaves form and grow.				X								
Science	LE-5.2.4	P-4	Some animals, including humans, move from place to place to meet their needs				X								
Science	LE-5.2.7	P-4	The health, growth, and development of organisms are affected by environmental conditions such as the availability of food, air, water, space, shelter, heat, and sunlight											X	
Science	LE-6.1	P-4	Students describe how plants and animals, including humans, depend upon each other and the nonliving environment.			X	X	X			X				
Science	LE-6.1.1	P-4	Green plants are producers because they provide the basic food supply for themselves and animals				X								
Science	LE-6.1.4	P-4	Decomposers are living things that play a vital role in recycling nutrients			X	X		X						
Science	LE-6.1.6	P-4	When the environment changes, some plants and animals survive and reproduce, and others die or move to new locations.				X							X	
Science	LE-6.2	P-4	Students describe the relationship of the Sun as an energy source for living and nonliving cycles.				X								
Science	LE-6.2.1	P-4	Plants manufacture food by utilizing air, water, and energy from the Sun				X								
Science	LE-6.2.2	P-4	The Sun's energy is transferred on Earth from plants to animals through the food chain				X								

4. Human Communities

Category	Area	Grade	Standard	1	2	3	4	5	6	7	8	9	10	11	12
Science	LE-7.1	P-4	Students identify ways in which humans have changed their environment and the effects of those changes.		X		X		X	X	X	X	X		
Science	LE-7.1.1	P-4	Humans depend on their natural and constructed environments						X		X		X		
Science	LE-7.1.2	P-4	Over time humans have changed their environment by cultivating crops and raising animals, creating shelter, using energy, manufacturing goods, developing means of transportation, changing populations, and carrying out other activities					X							X
Science	LE-7.1.3	P-4	Humans, as individuals or communities, change environments in ways that can be either helpful or harmful for themselves and other organisms					X	X	X	X	X	X	X	
Science	PS-2.1	5 thru 8	Students explain how the atmosphere (air), hydrosphere (water), and lithosphere (land) interact, evolve, and change.	X							X	X			X
Science	PS-2.1.10	5 thru 8	Water circulates through the atmosphere, lithosphere, and hydrosphere in what is known as the water cycle.								X	X			X
Science	PS-2.2.18	5 thru 8	Substances enter the atmosphere naturally and from human activity. Some of these substances include dust from volcanic eruptions and greenhouse gases such as carbon dioxide, methane, and water vapor. These substances can affect weather, climate, and living things.						X	X	X	X			X
Science	PS-3.1	5 thru 8	Students observe and describe properties of materials, such as density, conductivity, and solubility.									X			
Science	LE-7.1	5 thru 8	Students describe how living things, including humans, depend upon the living and nonliving environment for their survival.					X	X	X	X				X
Science	LE-7.1.1	5 thru 8	A population consists of all individuals of a species that are found together at a given place and time. Populations living in one place form a community. The community and the physical factors with which it interacts compose an ecosystem.												X
Science	LE-7.1.3	5 thru 8	In all environments, organisms interact with one another in many ways. Relationships among organisms may be competitive, harmful, or beneficial. Some species have adapted to be dependent upon each other with the result that neither could survive without the other.	X											X
Science	LE-7.1.4	5 thru 8	Some microorganisms are essential to the survival of other living things.												X
Science	LE-7.1.5	5 thru 8	The environment may contain dangerous levels of substances (pollutants) that are harmful to organisms. Therefore, the good health of environments and individuals requires the monitoring of soil, air, and water, and taking steps to keep them safe.						X	X	X	X	X		X
Science	LE-7.2	5 thru 8	Students describe the effects of environmental changes on humans and other populations.						X	X	X	X	X		
Science	LE-7.2.1	5 thru 8	In ecosystems, balance is the result of interactions between community members and their environment.												X
Science	LE-7.2.3	5 thru 8	Overpopulation by any species impacts the environment due to the increased use of resources. Human activities can bring about environmental degradation through resource acquisition, urban growth, land-use decisions, waste disposal, etc.						X	X	X	X	X		

4. Human Communities

Category	Area	Grade	Standard	1	2	3	4	5	6	7	8	9	10	11	12
Science	LE-7.2.4	5 thru 8	Since the Industrial Revolution, human activities have resulted in major pollution of air, water, and soil. Pollution has cumulative ecological effects such as acid rain, global warming, or ozone depletion. The survival of living things on our planet depends on the conservation and protection of Earth's resources.						X	X	X	X	X		X
Social Studies	S1.1A	Elem	Students know the roots of American culture, its development from many different traditions, and the ways many people from a variety of groups and backgrounds played a role in creating it.											X	
Social Studies	S1.2C	Elem	Students distinguish between near and distant past and interpret simple timelines.				X								
Social Studies	S1.3A	Elem	Students gather and organize information about the important accomplishments of individuals and groups, including Native American Indians, living in their neighborhoods and communities.				X								
Social Studies	S1.4B	Elem	Students explore different experiences, beliefs, motives, and traditions of people living in their neighborhoods, communities, and State	X	X		X								
Social Studies	S2.2A	Elem	Students distinguish between past, present, and future time periods.			X	X							X	
Social Studies	S3.1A	Elem	Students study about how people live, work, and utilize natural resources.	X				X			X	X	X	X	X
Social Studies	S3.1B	Elem	Students draw maps and diagrams that serve as representations of places, physical features, and objects.				X	X						X	X
Social Studies	S3.1C	Elem	Students locate places within the local community, State, and nation; locate the Earth's continents in relation to each other and to principal parallels and meridians.					X						X	
Social Studies	S3.1E	Elem	Students investigate how people depend on and modify the physical environment.		X			X			X	X		X	X
Social Studies	S3.2A	Elem	Students ask geographic questions about where places are located; why they are located where they are; what is important about their location of other people and places.	X		X	X	X						X	X
Social Studies	S3.2C	Elem	Students analyze geographic information by making relationships, interpreting trends and relationships, and analyzing geographic data.					X						X	X
Social Studies	S4.1A	Elem	Students know some ways individuals and groups attempt to satisfy their basic needs and wants by utilizing scarce resources.												X
Social Studies	S4.1B	Elem	Students explain how people's wants exceed their limited resources and that this condition defines scarcity.												X
Social Studies	S4.1C	Elem	Students know that scarcity requires individuals to make choices and that these choices involves costs.												X
Social Studies	S5.4A	Elem	Students show a willingness to consider other points of view before drawing consider other points of view before drawing conclusions or making judgements.												X
Social Studies	S5.4B	Elem	Students participate in activities that focus on a classroom, school, or community issue or problem.			X	X		X		X	X	X	X	X
Social Studies	S5.4C	Elem	Students suggest alternative solutions or courses of action to hypothetical or historic problems.				X		X	X	X	X	X		X

4. Human Communities

Category	Area	Grade	Standard	1	2	3	4	5	6	7	8	9	10	11	12
Social Studies	S5.4D	Elem	Students evaluate the consequences for each alternative solution or course of action.								X		X		X
Social Studies	S5.4F	Elem	Students propose an action plan to address the issue of how to solve the problem.								X	X	X		X
Social Studies	S3.1C	Interm	Students investigate why people and places are located where they are located and what patterns can be perceived in these places.	X	X										X
Social Studies	S3.1D	Interm	Students describe the relationships between people and environments and the connections between people and places.	X	X			X			X		X		X
Social Studies	S3.2C	Interm	Students present geographic information in a variety of formats, including maps, tables, graphs, charts, diagrams, and computer-generated models.					X		X					X
Social Studies	S3.2D	Interm	Students interpret geographic information synthesizing data and developing conclusions and generalizations about geographic issues and problems.												X
Social Studies	S4.1A	Interm	Students explain how societies and nations attempt to satisfy their basic needs and wants utilizing scarce capital, natural, and human resources.												X
Social Studies	S5.4C	Interm	Students participate in negotiation and compromise to resolve classroom, school, and community disagreements and problems.										X		X
Language Arts	1B-4	2 thru 4	Listen in order to:				X								X
Language Arts	1C	2 thru 4	Students select and use strategies they have been taught for note taking, organizing, and categorizing information.												X
Language Arts	1C-1	2 thru 4	Use graphic organizers to record significant details from informational texts												X
Language Arts	1D	2 thru 4	Students ask specific questions to clarify and extend meaning.			X	X								X
Language Arts	1D-1	2 thru 4	Read and understand written directions			X	X	X		X	X		X	X	
Language Arts	1E	2 thru 4	Students make appropriate and effective use of strategies to construct meaning from print, such as prior knowledge about a subject, structural and context clues, and an understanding of letter-sound relationships to decode difficult words.				X								
Language Arts	1E - 2	2 thru 4	Listen in order to interpret information by drawing on prior knowledge and experience			X	X				X				
Language Arts	1A	2 thru 4	Students present information clearly in a variety of oral and written forms such as summaries, paraphrases, brief reports, stories, posters, and charts.								X				
Language Arts	1A-3	2 thru 4	Speak in order to summarize			X	X								X
Language Arts	1C	2 thru 4	Students use a few traditional structures for conveying information such as chronological order, cause and effect, and similarity and difference.	X	X										
Language Arts	1D	2 thru 4	Students use details, examples, anecdotes, or personal experiences to explain or clarify information												X
Language Arts	1D-3	2 thru 4	Connect personal experiences and observations to new information from school subject areas	X	X			X			X	X		X	

4. Human Communities

Category	Area	Grade	Standard	1	2	3	4	5	6	7	8	9	10	11	12
Language Arts	2D-11	2 thru 4	Speak loudly enough to be heard by the audience.	X	X	X	X		X	X	X	X	X	X	
Language Arts	3E - 8	2 thru 4	Speak in order to:		X	X	X		X	X	X	X		X	
Language Arts	3F	2 thru 4	Students present arguments for certain views or actions with reference to specific criteria that support the argument (e.g., an argument to purchase a particular piece of playground equipment might be based on the criteria of safety, appeal to children, durability, and low cost.)					X	X		X	X	X		
Language Arts	3G	2 thru 4	Students monitor and adjust their own oral and written presentations to meet criteria for competent performance (e.g., in writing, the criteria might include development of position, organization, appropriate vocabulary, mechanics, and neatness. In speaking, the criteria might include good content, effective delivery, diction, posture, poise, and eye contact.)											X	
Language Arts	3G - 3	2 thru 4	Speak in order to:	X	X	X	X		X	X	X	X	X	X	
Language Arts	1C	5 thru 6	Students use a wide variety of strategies for selecting, organizing, and categorizing information.							X		X			
Language Arts	1E	5 thru 6	Students relate new information to prior knowledge and experience.										X		X
Language Arts	1B	5 thru 6	Students establish an authoritative stance on the subject and provide references to establish the validity and verifiability of the information presented.								X				
Language Arts	1C	5 thru 6	Students organize information according to an identifiable structure, such as compare/contrast or general to specific.	X	X										
Language Arts	1D	5 thru 6	Students develop information with appropriate supporting material, such as facts, details, illustrative examples or anecdotes, and exclude extraneous material.								X				
Language Arts	3C	5 thru 6	Students understand that within any group there are many different points of view depending on the particular interests and values of the individual and recognize those differences in perspective in texts and presentations (e.g., in considering whether to let a new industry comes into a community, some community members might be enthusiastic about the additional jobs that will be created while others are concerned about the air and noise pollution that could result.)								X	X	X		X
Language Arts	4A	5 thru 6	Students listen attentively to others and build on others' ideas in conversations with peers and adults.		X					X		X	X		X
Language Arts	4B	5 thru 6	Students express ideas and concerns clearly and respectfully in conversations and group discussions.								X	X	X		X
Language Arts	4B	5 thru 6	Students use appropriate language and style for the situation and the audience and take into account the ideas and interests expressed by the person receiving the message.								X	X	X		

Great Lakes in My World
Unit: **History**
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New York:
Science and
Social Studies

Category	Area	Grade	Standard	Activities													
				Who Needs the Lakes? 4-8	Now and Then 3-6	Beaches Over Time K-4	Seasons Change 3-6	Ways of Life 4-8	Boats of Many Sizes 3-6	200 Years of Change 4-8	Something's Fishy 6-8	Water Quality Over Time 6-8	A Day In The Life K-3	Sign of the Times 4-8			
Science	PS-2.1	P-4	Students describe the relationship among air, water, and land on Earth.			X											
Science	PS-3.1	P-4	Students observe and describe properties of material using appropriate tools.			X										X	
Science	PS-3.2.3	P-4	Changes in the properties or materials of objects can be observed and described			X											
Science	LE-1.1.1	P-4	Animals need air, water, and food in order to live and thrive					X									
Science	LE-1.1.4	P-4	Nonliving things can be human-created or naturally occurring			X											
Science	LE-1.2	P-4	Students describe the life processes common to all living things.													X	
Science	LE-3.1.3	P-4	In order to survive in their environment, plants and animals must be adapted to that environment.					X								X	
Science	LE-5.1.1	P-4	All living things grow, take in nutrients, breathe, reproduce, and eliminate waste													X	
Science	LE-5.2	P-4	Students describe some survival behaviors of common living specimens.					X									
Science	LE-5.2.4	P-4	Some animals, including humans, move from place to place to meet their needs					X	X	X					X	X	
Science	LE-6.1	P-4	Students describe how plants and animals, including humans, depend upon each other and the nonliving environment.		X		X	X	X	X					X	X	
Science	LE-7.1	P-4	Students identify ways in which humans have changed their environment and the effects of those changes.		X			X		X							X
Science	LE-7.1.1	P-4	Humans depend on their natural and constructed environments		X		X	X		X					X		
Science	LE-7.1.2	P-4	Over time humans have changed their environment by cultivating crops and raising animals, creating shelter, using energy, manufacturing goods, developing means of transportation, changing populations, and carrying out other activities		X	X		X	X	X					X		
Science	LE-7.1.3	P-4	Humans, as individuals or communities, change environments in ways that can be either helpful or harmful for themselves and other organisms		X	X		X	X	X					X		
Science	PS-2.1	5 thru 8	Students explain how the atmosphere (air), hydrosphere (water), and lithosphere (land) interact, evolve, and change.	X	X	X					X	X	X				
Science	PS-2.1.10	5 thru 8	Water circulates through the atmosphere, lithosphere, and hydrosphere in what is known as the water cycle.												X		
Science	PS-2.2.18	5 thru 8	Substances enter the atmosphere naturally and from human activity. Some of these substances include dust from volcanic eruptions and greenhouse gases such as carbon dioxide, methane, and water vapor. These substances can affect weather, climate, and living things.										X	X			X

History

Category	Area	Grade	Standard	1	2	3	4	5	6	7	8	9	10	11
Science	PS-3.1	5 thru 8	Students observe and describe properties of materials, such as density, conductivity, and solubility.			X								
Science	LE-3.2.1	5 thru 8	In all environments, organisms with similar needs may compete with one another for resources.					X		X	X	X		
Science	LE-3.2.2	5 thru 8	Extinction of a species occurs when the environment changes and the adaptive characteristics of a species are insufficient to permit its survival. Extinction of species is common. Fossils are evidence that a great variety of species existed in the past.								X	X		X
Science	LE-6.1.3	5 thru 8	Matter is transferred from one organism to another and between organisms and their physical environment. Water, nitrogen, carbon dioxide, and oxygen are examples of substances cycled between the living and nonliving environment.								X	X		
Science	LE-7.1	5 thru 8	Students describe how living things, including humans, depend upon the living and nonliving environment for their survival.	X	X		X	X	X	X	X	X		X
Science	LE-7.1.1	5 thru 8	A population consists of all individuals of a species that are found together at a given place and time. Populations living in one place form a community. The community and the physical factors with which it interacts compose an ecosystem.	X	X		X	X			X	X		X
Science	LE-7.1.3	5 thru 8	In all environments, organisms interact with one another in many ways. Relationships among organisms may be competitive, harmful, or beneficial. Some species have adapted to be dependent upon each other with the result that neither could survive without the other.					X		X	X	X		X
Science	LE-7.1.5	5 thru 8	The environment may contain dangerous levels of substances (pollutants) that are harmful to organisms. Therefore, the good health of environments and individuals requires the monitoring of soil, air, and water, and taking steps to keep them safe.								X	X		X
Science	LE-7.2	5 thru 8	Students describe the effects of environmental changes on humans and other populations.				X	X	X	X	X	X		X
Science	LE-7.2.1	5 thru 8	In ecosystems, balance is the result of interactions between community members and their environment.								X	X		X
Science	LE-7.2.2	5 thru 8	The environment may be altered through the activities of organisms. Alterations are sometimes abrupt. Some species may replace others over time, resulting in long - term gradual changes (ecological succession).							X	X		X	X
Science	LE-7.2.3	5 thru 8	Overpopulation by any species impacts the environment due to the increased use of resources. Human activities can bring about environmental degradation through resource acquisition, urban growth, land-use decisions, waste disposal, etc.							X	X	X	X	X
Science	LE-7.2.4	5 thru 8	Since the Industrial Revolution, human activities have resulted in major pollution of air, water, and soil. Pollution has cumulative ecological effects such as acid rain, global warming, or ozone depletion. The survival of living things on our planet depends on the conservation and protection of Earth's resources.			X			X	X	X	X		X
Social Studies	S1.1A	Elem	Students know the roots of American culture, its development from many different traditions, and the ways many people from a variety of groups and backgrounds played a role in creating it.	X	X	X	X	X	X	X				X
Social Studies	S1.2C	Elem	Students distinguish between near and distant past and interpret simple timelines.	X	X	X	X	X	X	X	X	X	X	X

History

Category	Area	Grade	Standard	1	2	3	4	5	6	7	8	9	10	11
Social Studies	S1.3A	Elem	Students gather and organize information about the important accomplishments of individuals and groups, including Native American Indians, living in their neighborhoods and communities.										X	X
Social Studies	S1.4A	Elem	Students consider different interpretations of key events and/or issues in history and understand the differences in these accounts.			X							X	
Social Studies	S1.4B	Elem	Students explore different experiences, beliefs, motives, and traditions of people living in their neighborhoods, communities, and State	X	X		X			X			X	X
Social Studies	S1.4C	Elem	Students view historic events through the eyes of those who were there, as shown in their art, writings, music, and artifacts.											X
Social Studies	S2.2A	Elem	Students distinguish between past, present, and future time periods.	X	X	X	X	X	X	X	X	X	X	X
Social Studies	S2.2B	Elem	Students develop timelines that display important events and eras from world history.	X		X			X					
Social Studies	S2.2C	Elem	Students measure and understand the meaning of calendar time in terms of years, decades, centuries, and millennia, using BC and AD as reference points.	X	X	X			X	X	X	X	X	X
Social Studies	S2.3A	Elem	Students understand the roles and contributions of individuals and groups to social, political, economic, cultural, scientific, technological, and religious practices and activities.			X					X		X	X
Social Studies	S2.3B	Elem	Students gather and present information about important development from world history.			X		X			X		X	X
Social Studies	S2.4A	Elem	Students consider different interpretations of key events and developments in world history and understand the differences in these accounts.								X			
Social Studies	S2.4B	Elem	Students explore the lifestyles, beliefs, traditions, rules and laws, and social/cultural needs and wants of people during different periods in history and in different parts of the world.			X	X	X	X	X	X		X	X
Social Studies	S2.4C	Elem	Students view historic events through the eyes of those who were there, as shown in their art, writings, music, and artifacts.	X										
Social Studies	S3.1A	Elem	Students study about how people live, work, and utilize natural resources.	X	X	X	X	X	X	X	X	X	X	X
Social Studies	S3.1B	Elem	Students draw maps and diagrams that serve as representations of places, physical features, and objects.		X								X	
Social Studies	S3.1E	Elem	Students investigate how people depend on and modify the physical environment.			X	X		X	X	X	X	X	
Social Studies	S4.1A	Elem	Students know some ways individuals and groups attempt to satisfy their basic needs and wants by utilizing scarce resources.								X	X	X	
Social Studies	S4.1B	Elem	Students explain how people's wants exceed their limited resources and that this condition defines scarcity.			X					X	X	X	
Social Studies	S4.1C	Elem	Students know that scarcity requires individuals to make choices and that these choices involves costs.			X					X	X		
Social Studies	S4.1D	Elem	Students study about how the availability and distribution of resources is important to a nation's economic growth.			X			X		X			X
Social Studies	S5.4A	Elem	Students show a willingness to consider other points of view before drawing consider other points of view before drawing conclusions or making judgements.	X			X			X				
Social Studies	S5.4B	Elem	Students participate in activities that focus on a classroom, school, or community issue or problem.			X					X	X	X	X

History

Category	Area	Grade	Standard	1	2	3	4	5	6	7	8	9	10	11
Social Studies	S5.4C	Elem	Students suggest alternative solutions or courses of action to hypothetical or historic problems.			X								
Social Studies	S5.4D	Elem	Students evaluate the consequences for each alternative solution or course of action.			X								
Social Studies	S1.2B	Interm	Students investigate key turning points in New York State and United States history and explain why these events or developments are significant.					X		X	X			
Social Studies	S1.3A	Interm	Students complete well-documented and historically accurate case studies about individuals and groups who represent different ethnic, national, and religious groups, including Native American Indians, in New York State and the United States at different times and in different locations.	X			X	X		X				X
Social Studies	S1.3B	Interm	Students gather and organize information about the important achievements and contributions of individuals and groups living in New York State and the United States.	X			X	X						
Social Studies	S1.4B	Interm	Students understand how different experiences, beliefs, values, traditions, and motives cause individuals and groups to interpret historic events and issues from different perspectives.	X				X						
Social Studies	S1.4D	Interm	Students describe historic events through the eyes and experiences of those who were there.	X	X		X	X		X				X
Social Studies	S2.1A	Interm	Students know the social and economic characteristics, such as customs, traditions, child-bearing practices, ways of making a living, education, socialization practices, gender roles, foods and religious and spiritual beliefs that distinguish different cultures and civilizations.				X	X	X	X				X
Social Studies	S2.2A	Interm	Students develop timelines by placing important events and developments in world history in their correct chronological order.	X					X		X			
Social Studies	S2.2B	Interm	Students measure time periods by years, decades, centuries, and millennia.	X	X			X	X	X	X	X		X
Social Studies	S2.4C	Interm	Students view history through the eyes of those who witnessed key events and developments in world history by analyzing their literature, diary accounts, letters, artifacts, art, music, architectural drawings, and other documents.							X			X	
Social Studies	S2.4D	Interm	Students investigate important events and developments in world history by posing analytical questions, selecting relevant data, distinguishing fact from opinion, hypothesizing cause-and-effect relationships, testing these hypotheses, and forming conclusions.							X			X	
Social Studies	S3.1A	Interm	Students map information about people, places, and environments.					X						
Social Studies	S3.1C	Interm	Students investigate why people and places are located where they are located and what patterns can be perceived in these places.	X	X		X	X						
Social Studies	S3.1D	Interm	Students describe the relationships between people and environments and the connections between people and places.	X	X	X	X	X		X	X	X		X
Social Studies	S3.2B	Interm	Students use a number of research skills; (e.g., computer databases, periodicals, census reports, maps, standard reference works, interviews, surveys) to locate and gather geographical information about issues and problems.								X	X		X
Social Studies	S3.2C	Interm	Students present geographic information in a variety of formats, including maps, tables, graphs, charts, diagrams, and computer-generated models.									X		

History

Category	Area	Grade	Standard	1	2	3	4	5	6	7	8	9	10	11
Social Studies	S3.2D	Interm	Students interpret geographic information synthesizing data and developing conclusions and generalizations about geographic issues and problems.								X	X		
Social Studies	S4.1A	Interm	Students explain how societies and nations attempt to satisfy their basic needs and wants utilizing scarce capital, natural, and human resources.	X	X		X	X	X		X	X		X

6. Geology and Water Flow

Great Lakes in My World
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Unit: Geology and Water Flow

New York:
Science and
Social Studies

Category	Area	Grade	Standard	Activities												
				3-6	K-8	4-8	K-3	4-8	4-8	3-6	4-8	6-8	6-8	K-3	4-8	
				1	2	3	4	5	6	7	8	9	10	11	12	
Science	PS-2.1	P-4	Students describe the relationship among air, water, and land on Earth.	X	X	X	X	X	X	X	X	X			X	X
Science	PS-2.1.3	P-4	Water is recycled by natural processes on Earth.		X	X	X	X	X	X	X	X			X	X
Science	PS-2.1.4	P-4	Erosion and deposition result from the interaction among air, water, and land.	X	X		X		X						X	X
Science	PS-3.1	P-4	Students observe and describe properties of material using appropriate tools.		X		X								X	
Science	PS-3.1.4	P-4	Measurements can be made with standard metric units and non-standard units. (Note: Exceptions to the metric system usage are found in meteorology.)		X										X	
Science	PS-3.2.3	P-4	Changes in the properties or materials of objects can be observed and described.				X								X	
Science	LE-1.1.4	P-4	Nonliving things can be human-created or naturally occurring.				X								X	
Science	LE-5.2.7	P-4	The health, growth, and development of organisms are affected by environmental conditions such as the availability of food, air, water, space, shelter, heat, and sunlight.									X				
Science	LE-6.1	P-4	Students describe how plants and animals, including humans, depend upon each other and the nonliving environment.	X		X									X	X
Science	LE-7.1	P-4	Students identify ways in which humans have changed their environment and the effects of those changes.					X			X					
Science	LE-7.1.1	P-4	Humans depend on their natural and constructed environments.	X												
Science	LE-7.1.2	P-4	Over time humans have changed their environment by cultivating crops and raising animals, creating shelter, using energy, manufacturing goods, developing means of transportation, changing populations, and carrying out other activities.		X	X		X			X				X	
Science	LE-7.1.3	P-4	Humans, as individuals or communities, change environments in ways that can be either helpful or harmful for themselves and other organisms.		X	X		X			X				X	
Science	PS-2.1	5 thru 8	Students explain how the atmosphere (air), hydrosphere (water), and lithosphere (land) interact, evolve, and change.	X	X	X		X	X	X	X	X	X	X		X
Science	PS-2.1.7	5 thru 8	The dynamic processes that wear away Earth's surface include weathering and erosion.	X	X				X	X				X		X
Science	PS-2.1.8	5 thru 8	The process of weathering breaks down rocks to form sediment. Soil consists of sediment, organic material, water, and air.		X				X							

6. Geology and Water Flow

Category	Area	Grade	Standard	1	2	3	4	5	6	7	8	9	10	11	12
Science	PS-2.1.9	5 thru 8	Erosion is the transport of sediment. Gravity is the driving force behind erosion. Gravity can act directly or through agents such as moving water, wind, and glaciers.	X	X			X	X	X	X		X		X
Science	PS-2.1.10	5 thru 8	Water circulates through the atmosphere, lithosphere, and hydrosphere in what is known as the water cycle.		X	X		X	X	X	X	X	X		X
Science	PS-2.2	5 thru 8	Students describe volcano and earthquake patterns, the rock cycle, and weather and climate changes.	X	X				X	X			X		X
Science	PS-2.2.18	5 thru 8	Substances enter the atmosphere naturally and from human activity. Some of these substances include dust from volcanic eruptions and greenhouse gases such as carbon dioxide, methane, and water vapor. These substances can affect weather, climate, and living things.			X		X			X		X		X
Science	PS-4.1	5 thru 8	Students describe the sources and identify the transformations of energy observed in everyday life.										X		X
Science	PS-4.5.2	5 thru 8	Energy can change from one form to another, although in the process some energy is always converted to heat. Some systems transform energy with less loss of heat than others.										X		X
Science	LE-3.1.2	5 thru 8	Changes in environmental conditions can affect the survival of individual organisms with a particular trait. Small differences between parents and offspring can accumulate in successive generations so that descendants are very different from their ancestors. Individual organisms with certain traits are more likely to survive and have offspring than individuals without those traits.	X		X					X		X		X
Science	LE-3.2	5 thru 8	Students describe factors responsible for competition within species and the significance of that competition.			X						X			
Science	LE-3.2.1	5 thru 8	In all environments, organisms with similar needs may compete with one another for resources.			X						X			
Science	LE-3.2.2	5 thru 8	Extinction of a species occurs when the environment changes and the adaptive characteristics of a species are insufficient to permit its survival. Extinction of species is common. Fossils are evidence that a great variety of species existed in the past.	X							X	X	X		X
Science	LE-5.1.2	5 thru 8	An organism's overall body plan and its environment determine the way that the organism carries out the life processes.	X							X				
Science	LE-5.1.4	5 thru 8	The methods for obtaining nutrients vary among organisms. Producers, such as green plants, use light energy to make their food. Consumers, such as animals, take in energy-rich foods.								X				
Science	LE-6.1	5 thru 8	Students describe the flow of energy and matter through food chains and food webs.								X				
Science	LE-6.1.1	5 thru 8	Energy flows through ecosystems in one direction, usually from the Sun, through producers to consumers and then to decomposers. This process may be visualized with food chains or energy pyramids.								X				
Science	LE-6.1.2	5 thru 8	Food webs identify feeding relationships among producers, consumers, and decomposers in an ecosystem.								X				

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Category	Area	Grade	Standard	1	2	3	4	5	6	7	8	9	10	11	12
Science	LE-6.1.3	5 thru 8	Matter is transferred from one organism to another and between organisms and their physical environment. Water, nitrogen, carbon dioxide, and oxygen are examples of substances cycled between the living and nonliving environment.			X					X		X		
Science	LE-7.1	5 thru 8	Students describe how living things, including humans, depend upon the living and nonliving environment for their survival.	X		X					X	X	X		
Science	LE-7.1.1	5 thru 8	A population consists of all individuals of a species that are found together at a given place and time. Populations living in one place form a community. The community and the physical factors with which it interacts compose an ecosystem.			X		X			X		X		X
Science	LE-7.1.3	5 thru 8	In all environments, organisms interact with one another in many ways. Relationships among organisms may be competitive, harmful, or beneficial. Some species have adapted to be dependent upon each other with the result that neither could survive without the other.								X		X		
Science	LE-7.1.5	5 thru 8	The environment may contain dangerous levels of substances (pollutants) that are harmful to organisms. Therefore, the good health of environments and individuals requires the monitoring of soil, air, and water, and taking steps to keep them safe.			X		X			X		X		
Science	LE-7.2	5 thru 8	Students describe the effects of environmental changes on humans and other populations.	X	X	X			X		X	X	X		X
Science	LE-7.2.1	5 thru 8	In ecosystems, balance is the result of interactions between community members and their environment.			X					X	X	X		X
Science	LE-7.2.2	5 thru 8	The environment may be altered through the activities of organisms. Alterations are sometimes abrupt. Some species may replace others over time, resulting in long-term gradual changes (ecological succession).								X		X		
Science	LE-7.2.3	5 thru 8	Overpopulation by any species impacts the environment due to the increased use of resources. Human activities can bring about environmental degradation through resource acquisition, urban growth, land-use decisions, waste disposal, etc.			X					X	X	X		X
Science	LE-7.2.4	5 thru 8	Since the Industrial Revolution, human activities have resulted in major pollution of air, water, and soil. Pollution has cumulative ecological effects such as acid rain, global warming, or ozone depletion. The survival of living things on our planet depends on the conservation and protection of Earth's resources.			X					X	X	X		X
Social Studies	S1.1A	Elem	Students know the roots of American culture, its development from many different traditions, and the ways many people from a variety of groups and backgrounds played a role in creating it.		X										X
Social Studies	S1.2C	Elem	Students distinguish between near and distant past and interpret simple timelines.	X	X					X					X
Social Studies	S1.4A	Elem	Students consider different interpretations of key events and/or issues in history and understand the differences in these accounts.		X										X
Social Studies	S1.4B	Elem	Students explore different experiences, beliefs, motives, and traditions of people living in their neighborhoods, communities, and State									X			

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Category	Area	Grade	Standard	1	2	3	4	5	6	7	8	9	10	11	12
Social Studies	S1.4C	Elem	Students view historic events through the eyes of those who were there, as shown in their art, writings, music, and artifacts.		X									X	
Social Studies	S2.2A	Elem	Students distinguish between past, present, and future time periods.	X	X				X	X	X	X	X	X	X
Social Studies	S2.2B	Elem	Students develop timelines that display important events and eras from world history.	X	X									X	
Social Studies	S2.2C	Elem	Students measure and understand the meaning of calendar time in terms of years, decades, centuries, and millennia, using BC and AD as reference points.	X	X				X		X			X	X
Social Studies	S2.3B	Elem	Students gather and present information about important development from world history.										X		X
Social Studies	S2.4A	Elem	Students consider different interpretations of key events and developments in world history and understand the differences in these accounts.									X			
Social Studies	S3.1A	Elem	Students study about how people live, work, and utilize natural resources.			X						X	X	X	X
Social Studies	S3.1B	Elem	Students draw maps and diagrams that serve as representations of places, physical features, and objects.		X				X		X			X	
Social Studies	S3.1C	Elem	Students locate places within the local community, State, and nation; locate the Earth's continents in relation to each other and to principal parallels and meridians.		X		X	X						X	
Social Studies	S3.1E	Elem	Students investigate how people depend on and modify the physical environment.		X	X						X	X	X	X
Social Studies	S3.2A	Elem	Students ask geographic questions about where places are located; why they are located where they are; what is important about their location of other people and places.		X	X	X	X	X		X	X		X	X
Social Studies	S3.2B	Elem	Students gather and organize geographic information from a variety of sources and display in a number of ways		X				X		X				
Social Studies	S3.2C	Elem	Students analyze geographic information by making relationships, interpreting trends and relationships, and analyzing geographic data.	X			X	X	X				X	X	X
Social Studies	S4.1A	Elem	Students know some ways individuals and groups attempt to satisfy their basic needs and wants by utilizing scarce resources.			X						X			
Social Studies	S4.1B	Elem	Students explain how people's wants exceed their limited resources and that this condition defines scarcity.			X						X			
Social Studies	S4.1C	Elem	Students know that scarcity requires individuals to make choices and that these choices involves costs.		X	X						X		X	
Social Studies	S4.1D	Elem	Students study about how the availability and distribution of resources is important to a nation's economic growth.									X			
Social Studies	S5.4A	Elem	Students show a willingness to consider other points of view before drawing consider other points of view before drawing conclusions or making judgements.									X			
Social Studies	S5.4B	Elem	Students participate in activities that focus on a classroom, school, or community issue or problem.		X	X	X					X		X	
Social Studies	S5.4C	Elem	Students suggest alternative solutions or courses of action to hypothetical or historic problems.									X	X		

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Category	Area	Grade	Standard	1	2	3	4	5	6	7	8	9	10	11	12
Social Studies	S5.4D	Elem	Students evaluate the consequences for each alternative solution or course of action.		X							X		X	
Social Studies	S1.4B	Interm	Students understand how different experiences, beliefs, values, traditions, and motives cause individuals and groups to interpret historic events and issues from different perspectives.									X			
Social Studies	S1.4C	Interm	Students compare and contrast different interpretations of key events and issues in New York State and United States history and explain reasons for these different accounts.									X			
Social Studies	S2.2A	Interm	Students develop timelines by placing important events and developments in world history in their correct chronological order.	X											
Social Studies	S2.2B	Interm	Students measure time periods by years, decades, centuries, and millennia.	X					X		X				X
Social Studies	S2.4D	Interm	Students investigate important events and developments in world history by posing analytical questions, selecting relevant data, distinguishing fact from opinion, hypothesizing cause-and-effect relationships, testing these hypotheses, and forming conclusions.			X						X	X		
Social Studies	S3.1A	Interm	Students map information about people, places, and environments.		X	X		X	X						
Social Studies	S3.1C	Interm	Students investigate why people and places are located where they are located and what patterns can be perceived in these places.		X	X			X		X				X
Social Studies	S3.1D	Interm	Students describe the relationships between people and environments and the connections between people and places.		X	X					X	X	X		X
Social Studies	S3.2B	Interm	Students use a number of research skills; (e.g., computer databases, periodicals, census reports, maps, standard reference works, interviews, surveys) to locate and gather geographical information about issues and problems.			X		X				X	X		
Social Studies	S3.2C	Interm	Students present geographic information in a variety of formats, including maps, tables, graphs, charts, diagrams, and computer-generated models.		X			X	X		X				
Social Studies	S3.2D	Interm	Students interpret geographic information synthesizing data and developing conclusions and generalizations about geographic issues and problems.					X	X		X	X	X		
Social Studies	S4.1A	Interm	Students explain how societies and nations attempt to satisfy their basic needs and wants utilizing scarce capital, natural, and human resources.			X						X			
Social Studies	S5.3C	Interm	Students discuss the role of an informed citizen in today's changing world.									X	X		
Social Studies	S5.4C	Interm	Students participate in negotiation and compromise to resolve classroom, school, and community disagreements and problems.									X	X		