

1. Lakes

**Great Lakes in My World** Unit:  
**Lakes**

www.greatlakes.org

Pennsylvania

Learning Standards:

Science and Social Studies

Category	Number	Standard	Activities												
			K-8 Lake Connection	K-4 I Am A Camera	3-6 Maps of Home	4-8 Watershed Orientation	K-8 Satisfy Your Curiosity	3-6 Eco-Language	3-6 Closer Look	3-6 Fish Observation	K-4 Web of Life	4-8 Tangled Web	3-6 What's New?	4-8 Great Lakes Relay	6-8 Invasive Issues
Science	3.1.4.A	Know that natural and human-made objects are made up of parts.	X	X	X	X	X	X	X			X			
Science	3.1.7.A	Explain the parts of a simple system and their relationship to each other.	X	X	X	X	X	X	X		X	X	X		
Science	3.1.4.B	Know models as useful simplifications of objects or processes.	X	X	X					X					
Science	3.1.7.B	Describe the use of models as an application of scientific or technological concepts.	X	X	X						X		X		
Science	3.1.4.C	Illustrate patterns that regularly occur and reoccur in nature.	X	X											
Science	3.1.7.C	Identify patterns as repeated processes or recurring elements in science and technology.	X		X										
Science	3.1.4.D	Know that scale is an important attribute of natural and human made objects, events and phenomena.	X		X		X							X	
Science	3.1.7.D	Explain scale as a way of relating concepts and ideas to one another by some measure.	X		X		X							X	
Science	3.1.4.E	Recognize change in natural and physical systems.	X	X	X							X	X	X	
Science	3.1.7.E	Identify change as a variable in describing natural and physical systems.	X	X	X							X	X	X	
Science	3.2.4.A	Identify and use the nature of scientific and technological knowledge.	X		X	X				X	X			X	
Science	3.2.7.A	Explain and apply scientific and technological knowledge.	X		X	X				X	X			X	
Science	3.2.4.B	Describe objects in the world using the five senses.	X	X	X	X	X	X	X	X	X	X	X	X	
Science	3.2.7.B	Apply process knowledge to make and interpret observations.	X	X	X	X	X	X	X	X	X	X	X	X	
Science	3.2.4.C	Recognize and use the elements of scientific inquiry to solve problems.	X		X	X	X	X	X	X	X	X	X	X	
Science	3.2.7.C	Identify and use the elements of scientific inquiry to solve problems.	X		X	X	X	X	X	X	X	X	X	X	
Science	3.2.4.D	Recognize and use the technological design process to solve problems.	X					X	X	X	X	X	X	X	
Science	3.2.7.D	Know and use the technological design process to solve problems.	X					X	X	X	X	X	X	X	
Science	3.3.4.A	Know the similarities and differences of living things.	X					X	X	X	X	X		X	
Science	3.3.7.A	Describe the similarities and differences that characterize diverse living things.	X					X	X	X	X	X		X	
Science	3.3.4.B	Know that living things are made up of parts that have specific functions.	X		X			X	X	X	X	X	X	X	

1. Lakes

Category	Number	Standard	1	2	3	4	5	6	7	8	9	10	11	12	13
Science	3.3.7.B	Describe the cell as the basic structural and functional unit of living things.	X			X			X	X	X	X	X	X	X
Science	3.3.7.D	Explain basic concepts of natural selection.	X						X	X			X	X	X
Science	3.5.7.A	Describe earth features and processes.	X			X									
Science	3.5.4.D	Recognize the earth's different water resources.	X	X	X	X	X	X	X	X	X	X	X	X	X
Science	3.5.7.D	Explain the behavior and impact of the earth's water systems.	X	X	X	X	X	X	X	X	X	X	X	X	X
Science	3.8.4.A	Know that people select, create and use science and technology and that they are limited by social and physical restraints.											X	X	X
Science	3.8.7.A	Explain how sciences and technologies are limited in their effects and influences on society.											X	X	X
Science	3.8.7.B	Explain how human ingenuity and technological resources satisfy specific human needs and improve the quality of life.											X	X	X
Science	3.8.4.C	Know the pros and cons of possible solutions to scientific and technological problems in society.											X	X	X
Science	3.8.7.C	Identify the pros and cons of applying technological and scientific solutions to address problems and the effect upon society.											X	X	X
Enviro/Ecology	4.1.4.A	Identify various types of water environments.	X	X	X	X	X	X	X	X	X	X	X	X	X
Enviro/Ecology	4.1.7.A	Explain the role of the water cycle within a watershed.	X	X	X	X	X	X	X	X	X	X	X	X	X
Enviro/Ecology	4.1.4.B	Explain the differences between moving and still water.	X	X	X	X	X								
Enviro/Ecology	4.1.7.B	Understand the role of the watershed.	X	X	X	X	X	X	X	X	X	X	X	X	X
Enviro/Ecology	4.1.4.C	Identify living things found in water environments.					X	X	X				X		X
Enviro/Ecology	4.1.7.C	Explain the effects of water on the life of organisms in a watershed.					X	X	X				X		X
Enviro/Ecology	4.1.4.E	Recognize the impact of watersheds and wetlands on animals and plants.	X			X									
Enviro/Ecology	4.1.7.E	Describe the impact of watersheds and wetlands on people.	X			X									
Enviro/Ecology	4.2.4.A	Identify needs of people.				X									
Enviro/Ecology	4.2.7.B	Examine the renewability of resources.											X	X	X
Enviro/Ecology	4.2.4.C	Know that some natural resources have limited life spans.											X	X	X
Enviro/Ecology	4.2.7.C	Explain natural resource distribution.											X	X	X
Enviro/Ecology	4.3.4.A	Know that plants, animals and humans are dependent on air and water.	X			X	X	X	X	X	X	X	X	X	X
Enviro/Ecology	4.3.7.A	Identify environmental health issues.	X			X							X	X	X
Enviro/Ecology	4.3.4.B	Identify how human actions affect environmental health.	X			X							X	X	X
Enviro/Ecology	4.3.7.B	Describe how human actions affect the health of the environment.	X	X	X	X	X	X	X	X	X	X	X	X	X
Enviro/Ecology	4.3.4.C	Understand that the elements of natural systems are interdependent.						X	X	X	X	X	X	X	X
Enviro/Ecology	4.3.7.C	Explain biological diversity.						X	X	X	X	X	X	X	X
Enviro/Ecology	4.6.4.A	Understand that living things are dependent on nonliving things in the environment for survival.				X	X	X	X	X	X	X	X	X	X
Enviro/Ecology	4.6.7.A	Explain the flows of energy and matter from organism to organism within an ecosystem.				X	X	X	X	X	X	X	X	X	X

1. Lakes

Category	Number	Standard	1	2	3	4	5	6	7	8	9	10	11	12	13
Enviro/Ecology	*	Understand the concept of cycles.	X	X	X	X	X	X	X	X	X	X	X	X	X
Enviro/Ecology	4.6.7.B	Explain the concepts of cycles.	X	X	X	X	X	X	X	X	X	X	X	X	X
Enviro/Ecology	4.6.4.C	Identify how ecosystems change over time.	X	X	X	X	X	X	X	X	X	X	X	X	X
Enviro/Ecology	4.6.7.C	Explain how ecosystems change over time.	X	X	X	X	X	X	X	X	X	X	X	X	X
Enviro/Ecology	4.7.4.A	Identify differences in living things.						X	X	X	X				
Enviro/Ecology	*	Describe diversity of plants and animals in ecosystems.					X	X	X	X					
Enviro/Ecology	4.7.4.B	Know that adaptations are important for survival.					X	X	X	X					
Enviro/Ecology	4.7.7.B	Explain how species of living organisms adapt to their environment.									X	X	X	X	X
Enviro/Ecology	4.7.4.C	Define and understand extinction.											X	X	X
Enviro/Ecology	4.8.7.A	Describe how the development of civilization relates to the environment.	X	X	X	X	X								
Enviro/Ecology	4.8.4.B	Know that environmental conditions influence where and how people live.	X	X	X	X	X								
Enviro/Ecology	4.8.7.B	Explain how people use natural resources.	X	X		X									
Enviro/Ecology	4.8.4.C	Explain how human activities may change the environment.	X	X		X									
Enviro/Ecology	4.8.7.D	Explain the importance of maintaining the natural resources at the local, state and national levels.										X	X	X	X
Geography	7.1.3.A	Identify geographic tools and their uses.			X	X	X								
Geography	7.1.6.A	Describe geographic tools and their uses.			X	X	X								
Geography	7.1.3.B	Identify and locate places and regions.			X	X									
Geography	7.1.6.B	Describe and locate places and regions.			X	X									
Geography	7.2.3.A	Identify the physical characteristics of places and regions.			X	X									
Geography	7.2.6.A	Describe the physical characteristics of places and regions.			X	X	X								
Geography	7.2.3.B	Identify the basic physical processes that affect the physical characteristics of places and regions.			X	X									
Geography	7.2.6.B	Describe the physical processes that shape patterns on Earth's surface.			X	X									
Geography	7.3.3.C	Identify the human characteristics of places and regions by their settlement characteristics.			X	X	X								
Geography	7.3.6.C	Describe the human characteristics of places and regions by their settlement characteristics.			X	X	X								
Geography	7.3.3.D	Identify the human characteristics of places and regions by their economic activities.			X	X	X								
Geography	7.3.6.D	Describe the human characteristics of places and regions by their economic activities.			X	X	X								
Geography	7.3.6.E	Describe the human characteristics of places and regions by their political activities.										X	X	X	X
Geography	7.4.3.A	Identify the impacts of physical systems on people.			X	X									
Geography	7.4.6.A	Describe the impacts of physical systems on people.			X	X						X		X	
Geography	7.4.3.B	Identify the impacts of people on physical systems.			X	X						X		X	X

1. Lakes

Category	Number	Standard	1	2	3	4	5	6	7	8	9	10	11	12	13
Geography	7.4.6.B	Describe the impacts of people on physical systems.			X	X						X		X	X
History	8.1.3.B	Develop an understanding of historical sources.			X	X									
History	8.1.6.B	Explain and analyze historical sources.			X	X									
History	8.2.3.C	Identify and describe how continuity and change have influenced Pennsylvania history.											X	X	X
History	8.2.6.C	Identify and explain how continuity and change have influenced Pennsylvania history from the Beginnings to 1824.											X	X	X

2. Sand Dunes

**Great Lakes in My World**  
 www.greatlakes.org  
**Pennsylvania Learning Standards:**  
 Science and Social Studies

**Unit: Sand Dunes**

Activities												
	K-8	4-8	3-6	K-8	3-6	4-8	4-8	4-8	3-6	6-8	4-8	6-8
	1	2	3	4	5	6	8	7	9	10	11	12
Dune Inspiration												
Making a Mark												
Dune Journey												
Satisfy Your Curiosity												
Sand Study												
Moving Sand												
Adaptations and Observations												
Indoor Dunes												
Adaptation Stories												
Succession Circles												
Dune Decisions												
Dune Minima Debate												

Category	Number	Standard
Science	3.1.4.A	Know that natural and human-made objects are made up of parts.
Science	3.1.7.A	Explain the parts of a simple system and their relationship to each other.
Science	3.1.4.B	Know models as useful simplifications of objects or processes.
Science	3.1.7.B	Describe the use of models as an application of scientific or technological concepts.
Science	3.1.4.C	Illustrate patterns that regularly occur and reoccur in nature.
Science	3.1.7.C	Identify patterns as repeated processes or recurring elements in science and technology.
Science	3.1.4.D	Know that scale is an important attribute of natural and human made objects, events and phenomena.
Science	3.1.7.D	Explain scale as a way of relating concepts and ideas to one another by some measure.
Science	3.1.4.E	Recognize change in natural and physical systems.
Science	3.1.7.E	Identify change as a variable in describing natural and physical systems.
Science	3.2.4.A	Identify and use the nature of scientific and technological knowledge.
Science	3.2.7.A	Explain and apply scientific and technological knowledge.
Science	3.2.4.B	Describe objects in the world using the five senses.
Science	3.2.7.B	Apply process knowledge to make and interpret observations.
Science	3.2.4.C	Recognize and use the elements of scientific inquiry to solve problems.
Science	3.2.7.C	Identify and use the elements of scientific inquiry to solve problems.
Science	3.2.4.D	Recognize and use the technological design process to solve problems.
Science	3.2.7.D	Know and use the technological design process to solve problems.
Science	3.3.4.A	Know the similarities and differences of living things.
Science	3.3.7.A	Describe the similarities and differences that characterize diverse living things.
Science	3.3.4.B	Know that living things are made up of parts that have specific functions.
Science	3.3.7.B	Describe the cell as the basic structural and functional unit of living things.
Science	3.3.4.C	Know that characteristics are inherited and, thus, offspring closely resemble their parents.

2. Sand Dunes

Category	Number	Standard	1	2	3	4	5	6	8	7	9	10	11	12
Science	3.3.7.C	Know that every organism has a set of genetic instructions that determines its inherited traits.	X			X		X	X	X	X	X		
Science	3.3.4.D	Identify changes in living things over time.	X					X	X	X	X	X	X	
Science	3.3.7.D	Explain basic concepts of natural selection.	X					X	X	X	X	X	X	
Science	3.5.4.A	Know basic landforms and earth history.	X	X	X	X	X	X					X	X
Science	3.5.7.A	Describe earth features and processes.	X	X	X	X	X	X					X	X
Science	3.5.4.B	Know types and uses of earth materials.	X										X	X
Science	3.5.7.B	Recognize earth resources and how they affect everyday life.	X										X	X
Science	3.5.4.D	Recognize the earth's different water resources.	X	X	X	X	X	X					X	X
Science	3.5.7.D	Explain the behavior and impact of the earth's water systems.	X	X	X	X	X	X					X	X
Science	3.8.4.A	Know that people select, create and use science and technology and that they are limited by social and physical restraints.											X	X
Science	3.8.7.A	Explain how sciences and technologies are limited in their effects and influences on society.											X	X
Science	3.8.4.B	Know how human ingenuity and technological resources satisfy specific human needs and improve the quality of life.											X	X
Science	3.8.7.B	Explain how human ingenuity and technological resources satisfy specific human needs and improve the quality of life.											X	X
Science	3.8.4.C	Know the pros and cons of possible solutions to scientific and technological problems in society.											X	X
Science	3.8.7.C	Identify the pros and cons of applying technological and scientific solutions to address problems and the effect upon society.											X	X
Enviro/Ecology	4.1.4.A	Identify various types of water environments.	X	X	X	X	X	X						
Enviro/Ecology	4.1.7.A	Explain the role of the water cycle within a watershed.	X	X	X	X	X	X					X	X
Enviro/Ecology	4.1.4.B	Explain the differences between moving and still water.	X	X	X	X	X	X					X	X
Enviro/Ecology	4.1.7.B	Understand the role of the watershed.	X	X	X	X	X	X					X	X
Enviro/Ecology	4.1.4.C	Identify living things found in water environments.	X	X	X	X		X	X	X	X	X	X	
Enviro/Ecology	4.1.7.C	Explain the effects of water on the life of organisms in a watershed.	X	X	X	X		X	X	X	X	X	X	
Enviro/Ecology	4.2.4.A	Identify needs of people.											X	X
Enviro/Ecology	4.2.7.A	Know that raw materials come from natural resources.											X	X
Enviro/Ecology	4.2.4.B	Identify products derived from natural resources.											X	X
Enviro/Ecology	4.2.7.B	Examine the renewability of resources.											X	X
Enviro/Ecology	4.2.4.C	Know that some natural resources have limited life spans.											X	X
Enviro/Ecology	4.2.7.C	Explain natural resource distribution.											X	X
Enviro/Ecology	4.3.4.B	Identify how human actions affect environmental health.	X	X	X	X	X	X	X	X	X	X	X	X
Enviro/Ecology	4.3.7.B	Describe how human actions affect the health of the environment.	X	X	X	X	X	X	X	X	X	X	X	X
Enviro/Ecology	4.3.4.C	Understand that the elements of natural systems are interdependent.	X			X		X	X	X	X	X	X	
Enviro/Ecology	4.3.7.C	Explain biological diversity.	X			X	X	X	X	X	X	X	X	X
Enviro/Ecology	4.6.4.A	Understand that living things are dependent on nonliving things in the environment for survival.	X			X	X	X	X	X	X	X	X	X

2. Sand Dunes

Category	Number	Standard	1	2	3	4	5	6	8	7	9	10	11	12
Enviro/Ecology	4.6.7.A	Explain the flows of energy and matter from organism to organism within an ecosystem.	X			X	X	X	X	X	X	X	X	X
Enviro/Ecology	*	Understand the concept of cycles.	X	X	X	X	X	X	X	X	X	X	X	X
Enviro/Ecology	4.6.7.B	Explain the concepts of cycles.	X	X	X	X	X	X	X	X	X	X	X	X
Enviro/Ecology	4.6.4.C	Identify how ecosystems change over time.	X			X	X	X	X	X	X	X	X	X
Enviro/Ecology	4.6.7.C	Explain how ecosystems change over time.	X			X	X	X	X	X	X	X	X	X
Enviro/Ecology	4.7.4.A	Identify differences in living things.	X	X	X	X	X	X	X	X	X	X	X	X
Enviro/Ecology	*	Describe diversity of plants and animals in ecosystems.	X	X	X	X	X	X	X	X	X	X	X	X
Enviro/Ecology	4.7.4.B	Know that adaptations are important for survival.						X	X	X	X	X	X	
Enviro/Ecology	4.7.7.B	Explain how species of living organisms adapt to their environment.						X	X	X	X	X	X	
Enviro/Ecology	4.7.4.C	Define and understand extinction.	X			X		X	X	X	X	X	X	
Enviro/Ecology	4.7.7.C	Explain natural or human actions in relation to the loss of species.	X			X		X	X	X	X	X	X	
Enviro/Ecology	4.8.4.A	Identify the biological requirements of humans.												X
Enviro/Ecology	4.8.7.A	Describe how the development of civilization relates to the environment.												X
Enviro/Ecology	4.8.4.B	Know that environmental conditions influence where and how people live.												X
Enviro/Ecology	4.8.7.B	Explain how people use natural resources.												X
Enviro/Ecology	4.8.4.C	Explain how human activities may change the environment.	X	X	X	X	X	X	X	X	X	X	X	X
Enviro/Ecology	4.8.7.C	Explain how human activities may affect local, regional and national environments.	X	X	X	X	X	X	X	X	X	X	X	X
Enviro/Ecology	4.8.4.D	Know the importance of natural resources in daily life.											X	X
Enviro/Ecology	4.8.7.D	Explain the importance of maintaining the natural resources at the local, state and national levels.											X	X
Geography	7.1.3.A	Identify geographic tools and their uses.	X					X						X
Geography	7.1.6.A	Describe geographic tools and their uses.	X					X						X
Geography	7.1.3.B	Identify and locate places and regions.	X										X	X
Geography	7.1.6.B	Describe and locate places and regions.			X								X	X
Geography	7.2.3.A	Identify the physical characteristics of places and regions.							X	X		X	X	
Geography	7.2.6.A	Describe the physical characteristics of places and regions.				X			X	X		X	X	
Geography	7.2.3.B	Identify the basic physical processes that affect the physical characteristics of places and regions.							X	X		X	X	
Geography	7.2.6.B	Describe the physical processes that shape patterns on Earth's surface.							X	X		X	X	
Geography	7.3.3.C	Identify the human characteristics of places and regions by their settlement characteristics.						X				X	X	X
Geography	7.3.6.C	Describe the human characteristics of places and regions by their settlement characteristics.						X				X	X	X
Geography	7.3.3.D	Identify the human characteristics of places and regions by their economic activities.												
Geography	7.3.6.D	Describe the human characteristics of places and regions by their economic activities.						X				X	X	X

2. Sand Dunes

Category	Number	Standard	1	2	3	4	5	6	8	7	9	10	11	12
Geography	7.3.3.E	Identify the human characteristics of places and regions by their political activities.											X	
Geography	7.3.6.E	Describe the human characteristics of places and regions by their political activities.											X	
Geography	7.4.3.A	Identify the impacts of physical systems on people.											X	
Geography	7.4.6.A	Describe the impacts of physical systems on people.							X	X			X	X
Geography	7.4.3.B	Identify the impacts of people on physical systems.							X	X			X	X
Geography	7.4.6.B	Describe the impacts of people on physical systems.							X	X			X	X
History	8.1.3.B	Develop an understanding of historical sources.											X	X
History	8.1.6.B	Explain and analyze historical sources.											X	X
History	8.2.3.C	Identify and describe how continuity and change have influenced Pennsylvania history.											X	

3. Wetlands

**Great Lakes in My World**      **Unit: Wetlands**

www.greatlakes.org

Pennsylvania

Learning

Standards: Science and Social Studies

Category	Number	Standard	Activities								
			K-4 1	K-2 2	4-8 3	4-8 4	4-8 5	K-8 6	K-3 7	4-8 8	
Science	3.1.4.A	Know that natural and human-made objects are made up of parts.	X	X							
Science	3.1.7.A	Explain the parts of a simple system and their relationship to each other.					X				
Science	3.1.4.B	Know models as useful simplifications of objects or processes.									X
Science	3.1.7.B	Describe the use of models as an application of scientific or technological concepts.									X
Science	3.1.4.C	Illustrate patterns that regularly occur and reoccur in nature.					X				
Science	3.1.7.C	Identify patterns as repeated processes or recurring elements in science and technology.					X				
Science	3.1.4.D	Know that scale is an important attribute of natural and human made objects, events and phenomena.				X	X	X			
Science	3.1.7.D	Explain scale as a way of relating concepts and ideas to one another by some measure.				X	X	X			
Science	3.1.4.E	Recognize change in natural and physical systems.				X	X	X			
Science	3.1.7.E	Identify change as a variable in describing natural and physical systems.				X	X	X			
Science	3.2.4.A	Identify and use the nature of scientific and technological knowledge.					X				
Science	3.2.7.A	Explain and apply scientific and technological knowledge.					X				
Science	3.2.4.B	Describe objects in the world using the five senses.	X	X	X		X	X	X		
Science	3.2.7.B	Apply process knowledge to make and interpret observations.									X
Science	3.2.4.C	Recognize and use the elements of scientific inquiry to solve problems.									X
Science	3.2.7.C	Identify and use the elements of scientific inquiry to solve problems.									X
Science	3.2.4.D	Recognize and use the technological design process to solve problems.									X
Science	3.2.7.D	Know and use the technological design process to solve problems.									X
Science	3.3.4.A	Know the similarities and differences of living things.	X	X	X			X	X	X	
Science	3.3.7.A	Describe the similarities and differences that characterize diverse living things.						X	X	X	
Science	3.3.4.B	Know that living things are made up of parts that have specific functions.									X
Science	3.3.7.B	Describe the cell as the basic structural and functional unit of living things.									X

3. Wetlands

Category	Number	Standard	1	2	3	4	5	6	7	8
Science	3.3.7.D	Explain basic concepts of natural selection.				X	X	X	X	
Science	3.5.4.D	Recognize the earth's different water resources.				X	X			
Science	3.5.7.D	Explain the behavior and impact of the earth's water systems.				X	X			
Science	3.8.4.A	Know that people select, create and use science and technology and that they are limited by social and physical restraints.								
Science	3.8.7.A	Explain how sciences and technologies are limited in their effects and influences on society.								
Science	3.8.4.B	Know how human ingenuity and technological resources satisfy specific human needs and improve the quality of life.				X	X			
Science	3.8.7.B	Explain how human ingenuity and technological resources satisfy specific human needs and improve the quality of life.				X	X			
Science	3.8.4.C	Know the pros and cons of possible solutions to scientific and technological problems in society.								
Science	3.8.7.C	Identify the pros and cons of applying technological and scientific solutions to address problems and the effect upon society.								
Enviro/Ecology	4.1.4.A	Identify various types of water environments.	X	X		X	X	X		
Enviro/Ecology	4.1.7.A	Explain the role of the water cycle within a watershed.				X	X	X		X
Enviro/Ecology	4.1.4.B	Explain the differences between moving and still water.				X	X	X		X
Enviro/Ecology	4.1.7.B	Understand the role of the watershed.				X	X	X		X
Enviro/Ecology	4.1.4.C	Identify living things found in water environments.	X	X	X		X	X	X	X
Enviro/Ecology	4.1.7.C	Explain the effects of water on the life of organisms in a watershed.	X	X	X	X	X	X	X	X
Enviro/Ecology	4.1.4.D	Identify a wetland and the plants and animals found there.	X	X	X	X	X	X	X	X
Enviro/Ecology	4.1.7.D	Explain and describe characteristics of a wetland.	X	X	X	X	X	X	X	X
Enviro/Ecology	4.1.4.E	Recognize the impact of watersheds and wetlands on animals and plants.	X	X	X	X	X	X	X	X
Enviro/Ecology	4.1.7.E	Describe the impact of watersheds and wetlands on people.	X	X	X	X	X	X	X	X
Enviro/Ecology	4.2.4.A	Identify needs of people.				X				
Enviro/Ecology	4.3.4.A	Know that plants, animals and humans are dependent on air and water.	X	X	X	X	X	X	X	X
Enviro/Ecology	4.3.7.A	Identify environmental health issues.				X	X	X		X
Enviro/Ecology	4.3.4.B	Identify how human actions affect environmental health.	X	X	X				X	
Enviro/Ecology	4.3.7.B	Describe how human actions affect the health of the environment.	X	X	X	X	X	X	X	X
Enviro/Ecology	4.3.4.C	Understand that the elements of natural systems are interdependent.	X	X	X	X	X	X	X	X
Enviro/Ecology	4.3.7.C	Explain biological diversity.	X	X	X	X	X	X	X	X
Enviro/Ecology	4.6.4.A	Understand that living things are dependent on nonliving things in the environment for survival.	X	X	X	X	X	X	X	X
Enviro/Ecology	4.6.7.A	Explain the flows of energy and matter from organism to organism within an ecosystem.				X	X	X		X
Enviro/Ecology	*	Understand the concept of cycles.	X	X	X	X				

3. Wetlands

Category	Number	Standard	1	2	3	4	5	6	7	8
Enviro/Ecology	4.6.7.B	Explain the concepts of cycles.	X	X	X	X	X	X	X	X
Enviro/Ecology	4.6.4.C	Identify how ecosystems change over time.	X	X	X	X	X			
Enviro/Ecology	4.6.7.C	Explain how ecosystems change over time.				X	X	X	X	X
Enviro/Ecology	4.7.4.A	Identify differences in living things.	X	X	X	X	X	X	X	X
Enviro/Ecology	*	Describe diversity of plants and animals in ecosystems.	X	X	X	X	X	X	X	X
Enviro/Ecology	4.7.4.B	Know that adaptations are important for survival.	X	X	X	X	X		X	
Enviro/Ecology	4.7.7.B	Explain how species of living organisms adapt to their environment.								
Enviro/Ecology	4.7.7.C	Explain natural or human actions in relation to the loss of species.				X	X			X
Enviro/Ecology	4.8.4.B	Know that environmental conditions influence where and how people live.				X				
Enviro/Ecology	4.8.7.B	Explain how people use natural resources.				X				
Enviro/Ecology	4.8.4.C	Explain how human activities may change the environment.	X	X		X				
Enviro/Ecology	4.8.7.C	Explain how human activities may affect local, regional and national environments.				X	X	X		
Enviro/Ecology	4.8.7.D	Explain the importance of maintaining the natural resources at the local, state and national levels.				X	X	X		
Geography	7.1.3.A	Identify geographic tools and their uses.				X	X	X	X	
Geography	7.1.6.A	Describe geographic tools and their uses.				X	X	X	X	
Geography	7.1.3.B	Identify and locate places and regions.	X	X						
Geography	7.1.6.B	Describe and locate places and regions.				X	X	X	X	
Geography	7.2.3.A	Identify the physical characteristics of places and regions.	X	X						
Geography	7.2.6.A	Describe the physical characteristics of places and regions.	X		X	X	X	X		
Geography	7.2.6.B	Describe the physical processes that shape patterns on Earth's surface.	X				X	X		
Geography	7.3.3.A	Identify the human characteristics of places and regions by their population characteristics.					X	X		
Geography	7.3.6.A	Describe the human characteristics of places and regions by their population characteristics.					X	X		
Geography	7.3.3.C	Identify the human characteristics of places and regions by their settlement characteristics.					X	X		
Geography	7.3.6.C	Describe the human characteristics of places and regions by their settlement characteristics.					X	X		
Geography	7.3.3.D	Identify the human characteristics of places and regions by their economic activities.					X	X		
Geography	7.3.6.D	Describe the human characteristics of places and regions by their economic activities.					X	X		
Geography	7.3.3.E	Identify the human characteristics of places and regions by their political activities.								
Geography	7.3.6.E	Describe the human characteristics of places and regions by their political activities.								

3. Wetlands

Category	Number	Standard	1	2	3	4	5	6	7	8
Geography	7.4.3.A	Identify the impacts of physical systems on people.	X	X				X		
Geography	7.4.6.A	Describe the impacts of physical systems on people.	X	X				X		
Geography	7.4.3.B	Identify the impacts of people on physical systems.								
Geography	7.4.6.B	Describe the impacts of people on physical systems.								
History	8.1.6.A	Understand chronological thinking and distinguish between past, present and future time.								
History	8.1.3.B	Develop an understanding of historical sources.								
History	8.1.6.B	Explain and analyze historical sources.								
History	8.1.3.C	Understand fundamentals of historical interpretation.								
History	8.1.6.C	Explain the fundamentals of historical interpretation.								
History	8.2.3.A	Understand the political and cultural contributions of individuals and groups to Pennsylvania history.								
History	8.2.3.C	Identify and describe how continuity and change have influenced Pennsylvania history.								

4. Human Communities

**Great Lakes in My World**      **Unit: Human Communities**

www.greatlakes.org

Pennsylvania

Learning

Standards:

Science and Social

Studies

Category	Number	Standard	Activities						
			4-8	3-6	K-4	K-4	4-8	3-6	
Science	3.1.4.C	Illustrate patterns that regularly occur and reoccur in nature.							
Science	3.1.7.C	Identify patterns as repeated processes or recurring elements in science and technology.							
Science	3.2.4.C	Recognize and use the elements of scientific inquiry to solve problems.							
Science	3.2.7.C	Identify and use the elements of scientific inquiry to solve problems.							
Science	3.2.4.D	Recognize and use the technological design process to solve problems.							
Science	3.2.7.D	Know and use the technological design process to solve problems.							
Science	3.3.4.A	Know the similarities and differences of living things.				X			
Enviro/Ecology	4.1.4.C	Identify living things found in water environments.		X		X			
Enviro/Ecology	4.1.7.C	Explain the effects of water on the life of organisms in a watershed.		X		X			
Enviro/Ecology	4.1.4.D	Identify a wetland and the plants and animals found there.		X		X			
Enviro/Ecology	4.1.7.D	Explain and describe characteristics of a wetland.		X		X			
Enviro/Ecology	4.1.4.E	Recognize the impact of watersheds and wetlands on animals and plants.		X		X	X		
Enviro/Ecology	4.1.7.E	Describe the impact of watersheds and wetlands on people.		X		X	X		
Enviro/Ecology	4.2.4.B	Identify products derived from natural resources.							
Enviro/Ecology	4.2.7.B	Examine the renewability of resources.							
Enviro/Ecology	4.2.4.C	Know that some natural resources have limited life spans.							
Enviro/Ecology	4.2.7.C	Explain natural resource distribution.							
Enviro/Ecology	4.3.4.A	Know that plants, animals and humans are dependent on air and water.				X	X		
Enviro/Ecology	4.3.7.A	Identify environmental health issues.				X	X		
Enviro/Ecology	4.3.4.B	Identify how human actions affect environmental health.						X	
Enviro/Ecology	4.3.7.B	Describe how human actions affect the health of the environment.						X	
Enviro/Ecology	4.3.4.C	Understand that the elements of natural systems are interdependent.				X			
Enviro/Ecology	4.3.7.C	Explain biological diversity.				X			

4. Human Communities

Category	Number	Standard	1	2	3	4	5	6
Enviro/Ecology	4.6.4.A	Understand that living things are dependent on nonliving things in the environment for survival.			X			
Enviro/Ecology	4.8.4.A	Identify the biological requirements of humans.		X				
Enviro/Ecology	4.8.7.A	Describe how the development of civilization relates to the environment.		X				
Enviro/Ecology	4.8.4.C	Explain how human activities may change the environment.		X				X
Enviro/Ecology	4.8.7.C	Explain how human activities may affect local, regional and national environments.		X				X
Enviro/Ecology	4.8.4.D	Know the importance of natural resources in daily life.						
Enviro/Ecology	4.8.7.D	Explain the importance of maintaining the natural resources at the local, state and national levels.						
Geography	7.1.3.A	Identify geographic tools and their uses.						
Geography	7.1.6.A	Describe geographic tools and their uses.					X	
Geography	7.1.3.B	Identify and locate places and regions.						
Geography	7.1.6.B	Describe and locate places and regions.					X	
Geography	7.2.3.A	Identify the physical characteristics of places and regions.						
Geography	7.2.6.A	Describe the physical characteristics of places and regions.					X	
Geography	7.3.3.A	Identify the human characteristics of places and regions by their population characteristics.		X				
Geography	7.3.6.A	Describe the human characteristics of places and regions by their population characteristics.		X				
Geography	7.3.3.B	Identify the human characteristics of places and regions by their cultural characteristics.		X				
Geography	7.3.6.B	Describe the human characteristics of places and regions by their cultural characteristics.		X				
Geography	7.3.3.C	Identify the human characteristics of places and regions by their settlement characteristics.		X				
Geography	7.3.6.C	Describe the human characteristics of places and regions by their settlement characteristics.		X				
Geography	7.3.3.D	Identify the human characteristics of places and regions by their economic activities.						
Geography	7.4.3.A	Identify the impacts of physical systems on people.		X				
Geography	7.4.6.A	Describe the impacts of physical systems on people.		X				
Geography	7.4.3.B	Identify the impacts of people on physical systems.		X				
Geography	7.4.6.B	Describe the impacts of people on physical systems.		X				

**Great Lakes in My World** Unit: **History**

www.greatlakes.org

Pennsylvania

Learning

Standards:

Science and Social

Studies

Category	Number	Standard	Activities							
			4-8 1	Who Needs the Lakes? 2	Now and Then 3	Beaches Over Time 4	Seasons Change 5	Ways of Life 6	Boats of Many Sizes 7	
Science	3.1.4.B	Know models as useful simplifications of objects or processes.						X		
Science	3.1.7.B	Describe the use of models as an application of scientific or technological concepts.						X		
Science	3.1.4.C	Illustrate patterns that regularly occur and reoccur in nature.						X		
Science	3.1.7.C	Identify patterns as repeated processes or recurring elements in science and technology.						X		
Science	3.2.4.B	Describe objects in the world using the five senses.			X					
Science	3.2.7.B	Apply process knowledge to make and interpret observations.							X	
Science	3.2.4.C	Recognize and use the elements of scientific inquiry to solve problems.							X	
Science	3.2.7.C	Identify and use the elements of scientific inquiry to solve problems.							X	
Science	3.2.4.D	Recognize and use the technological design process to solve problems.							X	
Science	3.2.7.D	Know and use the technological design process to solve problems.							X	
Science	3.3.4.A	Know the similarities and differences of living things.			X					
Science	3.3.7.A	Describe the similarities and differences that characterize diverse living things.			X					
Enviro/Ecology	4.1.7.B	Understand the role of the watershed.								
Enviro/Ecology	4.1.4.E	Recognize the impact of watersheds and wetlands on animals and plants.				X				
Enviro/Ecology	4.1.7.E	Describe the impact of watersheds and wetlands on people.				X				
Enviro/Ecology	4.2.4.A	Identify needs of people.	X	X						
Enviro/Ecology	4.2.7.A	Know that raw materials come from natural resources.	X	X						
Enviro/Ecology	4.2.7.B	Examine the renewability of resources.								
Enviro/Ecology	4.2.7.D	Describe the role of recycling and waste management.								
Enviro/Ecology	4.3.4.B	Identify how human actions affect environmental health.								
Enviro/Ecology	4.3.7.B	Describe how human actions affect the health of the environment.								
Enviro/Ecology	4.8.4.A	Identify the biological requirements of humans.		X		X				
Enviro/Ecology	4.8.7.A	Describe how the development of civilization relates to the environment.		X		X				
Enviro/Ecology	4.8.4.B	Know that environmental conditions influence where and how people live.		X		X				

5. History

Category	Number	Standard	1	2	3	4	5	6
Enviro/Ecology	4.8.7.B	Explain how people use natural resources.		X		X		
Enviro/Ecology	4.8.4.C	Explain how human activities may change the environment.		X		X		
Enviro/Ecology	4.8.7.C	Explain how human activities may affect local, regional and national environments.		X		X		
Enviro/Ecology	4.8.4.D	Know the importance of natural resources in daily life.				X		
Enviro/Ecology	4.8.7.D	Explain the importance of maintaining the natural resources at the local, state and national levels.				X		
Geography	7.1.6.B	Describe and locate places and regions.					X	
Geography	7.2.3.B	Identify the basic physical processes that affect the physical characteristics of places and regions.			X			
Geography	7.3.3.A	Identify the human characteristics of places and regions by their population characteristics.		X	X			
Geography	7.3.6.A	Describe the human characteristics of places and regions by their population characteristics.	X	X			X	
Geography	7.3.3.B	Identify the human characteristics of places and regions by their cultural characteristics.		X	X			
Geography	7.3.6.B	Describe the human characteristics of places and regions by their cultural characteristics.	X	X			X	
Geography	7.3.3.C	Identify the human characteristics of places and regions by their settlement characteristics.		X	X			
Geography	7.3.6.C	Describe the human characteristics of places and regions by their settlement characteristics.	X	X				
Geography	7.3.3.D	Identify the human characteristics of places and regions by their economic activities.			X			
Geography	7.3.6.D	Describe the human characteristics of places and regions by their economic activities.						
Geography	7.3.3.E	Identify the human characteristics of places and regions by their political activities.			X			
Geography	7.4.3.A	Identify the impacts of physical systems on people.		X	X	X		
Geography	7.4.6.A	Describe the impacts of physical systems on people.	X	X		X		
Geography	7.4.3.B	Identify the impacts of people on physical systems.		X	X	X		
Geography	7.4.6.B	Describe the impacts of people on physical systems.	X	X		X		
History	8.1.3.A	Understand chronological thinking and distinguish between past, present and future time.		X	X			X
History	8.1.6.A	Understand chronological thinking and distinguish between past, present and future time.	X	X			X	
History	8.1.3.B	Develop an understanding of historical sources.		X	X			X
History	8.1.6.B	Explain and analyze historical sources.	X	X			X	X
History	8.1.3.C	Understand fundamentals of historical interpretation.			X			X
History	8.1.6.C	Explain the fundamentals of historical interpretation.					X	X
History	8.1.3.D	Understand historical research.		X		X		X
History	8.1.6.D	Describe and explain historical research.	X	X		X	X	X
History	8.2.3.A	Understand the political and cultural contributions of individuals and groups to Pennsylvania history.			X	X		X

5. History

Category	Number	Standard	1	2	3	4	5	6	
History	8.2.6.A	Identify and explain the political and cultural contributions of individuals and groups to Pennsylvania history from Beginnings to 1824.	X	X			X	X	
History	8.2.6.C	Identify and explain how continuity and change have influenced Pennsylvania history from the Beginnings to 1824.					X		
History	8.3.3.A	Identify contributions of individuals and groups to United States history.		X					

6. Geology and Water Flow

**Great Lakes in My World**

www.greatlakes.org  
 Pennsylvania Learning Standards:

Science and Social Studies

**Unit: Geology and Water Flow**

Category	Number	Standard	Activities						
			3-6 1	Timelines 2	Looking at Landscape K-8	Water, Water Everywhere 4-8	Follow the water K-3	Water Flow 4-8	Landscape Changes 4-8
Science	3.1.4.C	Illustrate patterns that regularly occur and reoccur in nature.				X			
Science	3.1.7.C	Identify patterns as repeated processes or recurring elements in science and technology.				X			
Science	3.2.4.A	Identify and use the nature of scientific and technological knowledge.							
Science	3.2.7.A	Explain and apply scientific and technological knowledge.							
Science	3.2.4.B	Describe objects in the world using the five senses.			X				
Science	3.2.7.B	Apply process knowledge to make and interpret observations.							
Science	3.2.4.C	Recognize and use the elements of scientific inquiry to solve problems.							
Science	3.2.7.C	Identify and use the elements of scientific inquiry to solve problems.							
Science	3.2.4.D	Recognize and use the technological design process to solve problems.							
Science	3.2.7.D	Know and use the technological design process to solve problems.							
Science	3.5.4.A	Know basic landforms and earth history.			X				X
Science	3.5.7.A	Describe earth features and processes.							X
Science	3.5.4.D	Recognize the earth's different water resources.				X	X	X	
Science	3.5.7.D	Explain the behavior and impact of the earth's water systems.				X	X	X	
Enviro/Ecology	4.1.7.A	Explain the role of the water cycle within a watershed.					X	X	
Enviro/Ecology	4.1.4.B	Explain the differences between moving and still water.					X	X	
Enviro/Ecology	4.1.7.B	Understand the role of the watershed.					X	X	
Enviro/Ecology	4.1.4.C	Identify living things found in water environments.							
Enviro/Ecology	4.1.7.C	Explain the effects of water on the life of organisms in a watershed.							
Enviro/Ecology	4.1.4.E	Recognize the impact of watersheds and wetlands on animals and plants.			X				
Enviro/Ecology	4.1.7.E	Describe the impact of watersheds and wetlands on people.			X				
Enviro/Ecology	4.2.4.C	Know that some natural resources have limited life spans.				X			
Enviro/Ecology	4.3.4.A	Know that plants, animals and humans are dependent on air and water.							
Enviro/Ecology	4.3.7.A	Identify environmental health issues.							

6. Geology and Water Flow

Category	Number	Standard	1	2	3	4	5	6
Enviro/Ecology	4.3.4.B	Identify how human actions affect environmental health.			X			
Enviro/Ecology	4.3.7.B	Describe how human actions affect the health of the environment.			X			
Enviro/Ecology	4.8.4.A	Identify the biological requirements of humans.	X	X				
Enviro/Ecology	4.8.7.A	Describe how the development of civilization relates to the environment.	X	X				
Enviro/Ecology	4.8.4.B	Know that environmental conditions influence where and how people live.		X				
Enviro/Ecology	4.8.7.B	Explain how people use natural resources.		X				
Enviro/Ecology	4.8.4.C	Explain how human activities may change the environment.		X				
Enviro/Ecology	4.8.7.C	Explain how human activities may affect local, regional and national environments.		X				
Enviro/Ecology	4.8.4.D	Know the importance of natural resources in daily life.			X			
Enviro/Ecology	4.8.7.D	Explain the importance of maintaining the natural resources at the local, state and national levels.			X			
Geography	7.1.3.B	Identify and locate places and regions.		X				
Geography	7.1.6.B	Describe and locate places and regions.		X				
Geography	7.2.6.A	Describe the physical characteristics of places and regions.						X
Geography	7.2.6.B	Describe the physical processes that shape patterns on Earth's surface.						X
Geography	7.3.6.A	Describe the human characteristics of places and regions by their population characteristics.						
Geography	7.3.3.C	Identify the human characteristics of places and regions by their settlement characteristics.		X				
Geography	7.3.6.C	Describe the human characteristics of places and regions by their settlement characteristics.		X				
Geography	7.3.6.D	Describe the human characteristics of places and regions by their economic activities.						
Geography	7.4.3.A	Identify the impacts of physical systems on people.		X				
Geography	7.4.6.A	Describe the impacts of physical systems on people.		X				
Geography	7.4.3.B	Identify the impacts of people on physical systems.		X				
Geography	7.4.6.B	Describe the impacts of people on physical systems.		X				
History	8.1.6.A	Understand chronological thinking and distinguish between past, present and future time.	X	X				
History	8.1.6.B	Explain and analyze historical sources.		X				
History	8.1.6.C	Explain the fundamentals of historical interpretation.		X				
History	8.2.6.C	Identify and explain how continuity and change have influenced Pennsylvania history from the Beginnings to 1824.	X	X				