





# Great Lakes Unit: in My World Sand Dunes

www.greatlakes.org Illinois Dunes  
Learning Standards:  
Science and Social Studies

Category	Number	Standard	Activities															
			1	2	3	4	5	6	8	7	9	10	11	12	13	14	15	
Science	11.A.1b	Develop questions on scientific topics.				X		X			X							
Science	11.A.1c	Collect data for investigations using measuring instruments and technologies.						X										
Science	11.A.1d	Record and store data using available technologies.					X		X									
Science	11.A.2a	Formulate questions on a specific science topic and choose the steps needed to answer the questions.				X					X							
Science	11.A.2b	Collect data for investigations using scientific process skills including observing, estimating and measuring.					X	X	X									
Science	11.A.2d	Use data to produce reasonable explanations.						X										
Science	11.A.2e	Report and display the results of individual and group investigations.				X		X			X							X
Science	11.A.3a	Formulate hypotheses that can be tested by collecting data.						X										
Science	11.A.3d	Explain the existence of unexpected results in a data set.						X										
Science	12.A.1a	Identify and describe the component parts of living things (e.g., birds have feathers; people have bones, blood, hair, skin) and their major functions.				X												
Science	12.A.3c	Compare and contrast how different forms and structures reflect different functions (e.g., similarities and differences among animals that fly, walk or swim; structures of plant cells and animal cells).							X		X							
Science	12.B.1a	Describe and compare characteristics of living things in relationship to their environments.				X					X					X		
Science	12.B.1b	Describe how living things depend on one another for survival.				X												
Science	12.B.2b	Identify physical features of plants and animals that help them live in different environments (e.g., specialized teeth for eating certain foods, thorns for protection, insulation for cold temperature).				X		X	X	X								X
Science	12.B.3b	Compare and assess features of organisms for their adaptive, competitive and survival potential (e.g., appendages, reproductive rates, camouflage, defensive structures).				X		X										X

Category	Number	Standard	1	2	3	4	5	6	8	7	9	10	11	12	13	14	15
Science	12.E.1a	Identify components and describe diverse features of the Earth's land, water and atmospheric systems.	X		X												
Science	12.E.2b	Describe and explain short-term and long-term interactions of the Earth's components (e.g., earthquakes, types of erosion).					X	X									
Science	12.E.3b	Describe interactions between solid earth, oceans, atmosphere and organisms that have resulted in ongoing changes of Earth (e.g., erosion, El Nino).					X	X				X					
Science	13.B.2e	Identify and explain ways that technology changes ecosystems (e.g., dams, highways, buildings, communication networks, power plants).												X			
Science	13.B.2f	Analyze how specific personal and societal choices that humans make affect local, regional and global ecosystems (e.g., lawn and garden care, mass transit).											X				
Science	13.B.3d	Analyze the interaction of resource acquisition, technological development and ecosystem impact (e.g., diamond, coal or gold mining; deforestation).												X			
Science	13.B.3e	Identify advantages and disadvantages of natural resource conservation and management programs.												X			
Science	13.B.3f	Apply classroom-developed criteria to determine the effects of policies on local science and technology issues (e.g., energy consumption, landfills, water quality).												X	X		
Social Studies	17.A.1a	Identify physical characteristics of places, both local and global (e.g., locations, roads, regions, bodies of water).			X												
Social Studies	17.A.1b	Identify the characteristics and purposes of geographic representations including maps, globes, graphs, photographs, software, digital images and be able to locate specific places using each.								X							
Social Studies	17.B.1b	Describe physical components of ecosystems.	X		X												
Social Studies	17.B.2a	Describe how physical and human processes shape spatial patterns including erosion, agriculture and settlement.					X										
Social Studies	17.B.2b	Explain how physical and living components interact in a variety of ecosystems including desert, prairie, flood plain, forest, tundra.							X	X							
Social Studies	17.B.3b	Explain how changes in components of an ecosystem affect the system overall.										X	X	X			
Social Studies	17.C.2c	Explain how human activity affects the environment.										X					

# Great Lakes Unit: in My World Wetlands

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Illinois 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	3-6 9	4-8 10	4-8 11	4-8 12	4-8 13	
Science	11.A.1b	Develop questions on scientific topics.	X													
Science	11.A.1c	Collect data for investigations using measuring instruments and technologies.						X	X							
Science	11.A.1e	Arrange data into logical patterns and describe the patterns.						X								
Science	11.A.1f	Compare observations of individual and group results.						X								
Science	11.A.2a	Formulate questions on a specific science topic and choose the steps needed to answer the questions.												X		
Science	11.A.2b	Collect data for investigations using scientific process skills including observing, estimating and measuring.						X								
Science	11.A.2e	Report and display the results of individual and group investigations.						X								
Science	11.A.3c	Collect and record data accurately using consistent measuring and recording techniques and media.						X	X							
Science	11.B.2a	Identify a design problem and propose possible solutions.													X	
Science	11.B.2b	Develop a plan, design and procedure to address the problem identifying constraints (e.g., time, materials, technology).													X	
Science	11.B.2c	Build a prototype of the design using available tools and materials.													X	
Science	11.B.2d	Test the prototype using suitable instruments, techniques and quantitative measurements to record data.													X	
Science	11.B.2e	Assess test results and the effectiveness of the design using given criteria and noting possible sources of error.													X	
Science	11.B.3a	Identify an actual design problem and establish criteria for determining the success of a solution.													X	
Science	11.B.3b	Sketch, propose and compare design solutions to the problem considering available materials, tools, cost effectiveness and safety.													X	
Science	11.B.3c	Select the most appropriate design and build a prototype or simulation.													X	
Science	11.B.3d	Test the prototype using available materials, instruments and technology and record the data.													X	

Category	Number	Standard	1	2	3	4	5	6	7	8	9	10	11	12	13
Science	11.B.3e	Evaluate the test results based on established criteria, note sources of error and recommend improvements.													X
Science	11.B.3f	Using available technology, report the relative success of the design based on the test results and criteria.													X
Science	12.A.1b	Categorize living organisms using a variety of observable features (e.g., size, color, shape, backbone).										X			
Science	12.A.2a	Describe simple life cycles of plants and animals and the similarities and differences in their offspring.									X				
Science	12.B.1a	Describe and compare characteristics of living things in relationship to their environments.		X			X	X	X				X	X	
Science	12.B.2a	Describe relationships among various organisms in their environments (e.g., predator/prey, parasite/host, food chains and food webs).						X							
Science	12.B.2b	Identify physical features of plants and animals that help them live in different environments (e.g., specialized teeth for eating certain foods, thorns for protection, insulation for cold temperature).						X		X					
Science	13.A.1c	Explain how knowledge can be gained by careful observation.						X							
Science	13.B.3f	Apply classroom-developed criteria to determine the effects of policies on local science and technology issues (e.g., energy consumption, landfills, water quality).													X
social studies	17.A.1a	Identify physical characteristics of places, both local and global (e.g., locations, roads, regions, bodies of water).				X									
social studies	17.A.2a	Compare the physical characteristics of places including soils, land forms, vegetation, wildlife, climate, natural hazards.						X							
social studies	17.A.2b	Use maps and other geographic representations and instruments to gather information about people, places and environments.				X									
social studies	17.B.1a	Identify components of the Earth's physical systems.	X												
social studies	17.B.1b	Describe physical components of ecosystems.	X												
social studies	17.B.3a	Explain how physical processes including climate, plate tectonics, erosion, soil formation, water cycle, and circulation patterns in the ocean shape patterns in the environment and influence availability and quality of natural resources.											X	X	
social studies	17.B.3b	Explain how changes in components of an ecosystem affect the system overall.												X	
social studies	17.C.2c	Explain how human activity affects the environment.													X

# Great Lakes in My World

## Unit: Human Communities

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Learning Standards:  
Science and Social Studies

Category	Number	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	11.A.2b	Collect data for investigations using scientific process skills including observing, estimating and measuring.								X		X			
Science	11.A.2c	Construct charts and visualizations to display data.								X	X	X			
Science	12.A.1a	Identify and describe the component parts of living things (e.g., birds have feathers; people have bones, blood, hair, skin) and their major functions.			X										
Science	12.A.1b	Categorize living organisms using a variety of observable features (e.g., size, color, shape, backbone).			X	X									
Science	12.B.1a	Describe and compare characteristics of living things in relationship to their environments.			X	X								X	
Science	12.B.1b	Describe how living things depend on one another for survival.			X	X									
Science	12.B.2a	Describe relationships among various organisms in their environments (e.g., predator/prey, parasite/host, food chains and food webs).				X				X					
Science	12.E.2c	Identify and classify recyclable materials.							X						
Science	13.A.1c	Explain how knowledge can be gained by careful observation.			X										
Science	13.B.2e	Identify and explain ways that technology changes ecosystems (e.g., dams, highways, buildings, communication networks, power plants).								X					X
Social Studies	13.B.2f	Analyze how specific personal and societal choices that humans make affect local, regional and global ecosystems (e.g., lawn and garden care, mass transit).							X	X	X	X			X
Social Studies	13.B.3d	Analyze the interaction of resource acquisition, technological development and ecosystem impact (e.g., diamond, coal or gold mining; deforestation).													X
Social Studies	13.B.3e	Identify advantages and disadvantages of natural resource conservation and management programs.													X
Social Studies	13.B.3f	Apply classroom-developed criteria to determine the effects of policies on local science and technology issues (e.g., energy consumption, landfills, water quality).													X

Category	Number	Standard	1	2	3	4	5	6	7	8	9	10	11	12
Social Studies	17.A.1a	Identify physical characteristics of places, both local and global (e.g., locations, roads, regions, bodies of water).											X	
Social Studies	17.A.1b	Identify the characteristics and purposes of geographic representations including maps, globes, graphs, photographs, software, digital images and be able to locate specific places using each.											X	
Social Studies	17.A.2b	Use maps and other geographic representations and instruments to gather information about people, places and environments.					X							
Social Studies	17.A.3a	Explain how people use geographic markers and boundaries to analyze and navigate the Earth (e.g., hemispheres, meridians, continents, bodies of water).					X							
Social Studies	17.A.3b	Explain how to make and use geographic representations to provide and enhance spatial information including maps, graphs, charts, models, aerial photographs, satellite images.					X							
Social Studies	17.B.3b	Explain how changes in components of an ecosystem affect the system overall.								X				X
Social Studies	17.C.1b	Identify opportunities and constraints of the physical environment.											X	
Social Studies	17.C.2c	Explain how human activity affects the environment.						X	X	X	X	X		X



# Great Lakes in My World Unit: History

www.greatlakes.org Illinois

Learning Standards:  
Science and Social Studies

Category	Number	Standard	Activities											
			4-8 1	3-6 2	K-4 3	3-6 4	4-8 5	3-6 6	4-8 7	6-8 8	6-8 9	K-3 10	4-8 11	
Science	12.B.1a	Describe and compare characteristics of living things in relationship to their environments.		X		X							X	
Science	12.E.1b	Identify and describe patterns of weather and seasonal change.				X								
Science	13.A.1c	Explain how knowledge can be gained by careful observation.			X									
Science	13.B.2f	Analyze how specific personal and societal choices that humans make affect local, regional and global ecosystems (e.g., lawn and garden care, mass transit).	X						X					
Science	13.B.3f	Apply classroom-developed criteria to determine the effects of policies on local science and technology issues (e.g., energy consumption, landfills, water quality).								X	X			
Social Studies	16.A.1a	Explain the difference between past, present and future time; place themselves in time.		X	X	X		X						
Social Studies	16.A.1c	Describe how people in different times and places viewed the world in different ways.		X	X			X				X		
Social Studies	16.A.2b	Compare different stories about a historical figure or event and analyze differences in the portrayals and perspectives they present.	X						X					X
Social Studies	16.A.3b	Make inferences about historical events and eras using historical maps and other historical sources.					X			X	X			X
Social Studies	16.C.1a	(US) Describe how Native American people in Illinois engaged in economic activities with other tribes and traders in the region prior to the Black Hawk War.	X										X	
Social Studies	16.C.1a	(W) Identify how people and groups in the past made economic choices (e.g., crops to plant, products to make, products to trade) to survive and improve their lives.	X			X			X					
Social Studies	16.C.1b	(W) Explain how trade among people brought an exchange of ideas, technology and language.	X					X						
Social Studies	16.C.3a	(US) Describe economic motivations that attracted Europeans and others to the Americas, 1500-1750.	X						X	X				
Social Studies	16.D.3a	(US) Describe characteristics of different kinds of communities in various sections of America during the colonial/frontier periods and the 19th century.	X				X	X	X					X
Social Studies	16.E.1	(US) Describe how the local environment has changed over time.			X	X							X	
Social Studies	16.E.2a	(US) Identify environmental factors that drew settlers to the state and region.												
Social Studies	16.E.2a	(W) Describe how people in hunting and gathering and early pastoral societies adapted to their respective environments.	X	X		X	X	X	X				X	X

Category	Number	Standard	1	2	3	4	5	6	7	8	9	10	11
Social Studies	16.E.3a	(US) Describe how early settlers in Illinois and the United States adapted to, used and changed the environment prior to 1818.		X					X				
Social Studies	16.E.3b	(US) Describe how the largely rural population of the United States adapted, used and changed the environment after 1818.							X				X
Social Studies	16.E.3c	(US) Describe the impact of urbanization and suburbanization, 1850 - present, on the environment.	X						X	X	X		X
Social Studies	17.A.1a	Identify physical characteristics of places, both local and global (e.g., locations, roads, regions, bodies of water).			X								
Social Studies	17.A.2b	Use maps and other geographic representations and instruments to gather information about people, places and environments.					X						
Social Studies	17.B.3b	Explain how changes in components of an ecosystem affect the system overall.								X	X		X
Social Studies	17.C.1a	Identify ways people depend on and interact with the physical environment (e.g., farming, fishing, hydroelectric power).		X	X	X	X					X	
Social Studies	17.C.1b	Identify opportunities and constraints of the physical environment.				X							
Social Studies	17.C.2a	Describe how natural events in the physical environment affect human activities.				X		X					
Social Studies	17.C.2b	Describe the relationships among location of resources, population distribution and economic activities (e.g., transportation, trade, communications).							X	X	X		X
Social Studies	17.C.2c	Explain how human activity affects the environment.	X						X	X	X		X
Social Studies	17.C.3a	Explain how human activity is affected by geographic factors.		X		X	X			X			X
Social Studies	17.C.3c	Analyze how human processes influence settlement patterns including migration and population growth.	X				X			X	X		
Social Studies	17.D.1	Identify changes in geographic characteristics of a local region (e.g., town, community).			X							X	
Social Studies	17.D.2a	Describe how physical characteristics of places influence people's perceptions and their roles in the world over time.						X		X	X		X
Social Studies	17.D.2b	Identify different settlement patterns in Illinois and the United States and relate them to physical features and resources.	X				X		X	X	X		X
Social Studies	18.C.1	Describe how individuals interacted within groups to make choices regarding food, clothing and shelter.				X	X					X	
Social Studies	18.C.2	Describe how changes in production (e.g., hunting and gathering, agricultural, industrial) and population caused changes in social systems.	X						X	X			X
Social Studies	18.C.3b	Explain how diverse groups have contributed to U.S. social systems over time.	X				X		X				

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

**Unit: Geology and Water Flow**

Category	Number	Standard	Activities											
			4-8	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	11.A.1b	Develop questions on scientific topics.							X				X	X
Science	11.A.1c	Collect data for investigations using measuring instruments and technologies.												X
Science	11.A.1f	Compare observations of individual and group results.		X										
Science	11.A.2a	Formulate questions on a specific science topic and choose the steps needed to answer the questions.			X					X		X	X	
Science	11.A.2b	Collect data for investigations using scientific process skills including observing, estimating and measuring.			X					X		X		
Science	11.A.2c	Construct charts and visualizations to display data.	X		X					X			X	
Science	11.A.2d	Use data to produce reasonable explanations.			X					X				
Science	11.A.2e	Report and display the results of individual and group investigations.			X					X			X	X
Science	11.A.3a	Formulate hypotheses that can be tested by collecting data.			X					X				
Science	11.A.3c	Collect and record data accurately using consistent measuring and recording techniques and media.			X					X				
Science	12.E.1a	Identify components and describe diverse features of the Earth's land, water and atmospheric systems.		X									X	
Science	12.E.2a	Identify and explain natural cycles of the Earth's land, water and atmospheric systems (e.g., rock cycle, water cycle, weather patterns).				X				X			X	
Science	12.E.2b	Describe and explain short-term and long-term interactions of the Earth's components (e.g., earthquakes, types of erosion).	X							X			X	
Science	12.E.3a	Analyze and explain large-scale dynamic forces, events and processes that affect the Earth's land, water and atmospheric systems (e.g., jetstream, hurricanes, plate tectonics).						X						
Science	12.E.3b	Describe interactions between solid earth, oceans, atmosphere and organisms that have resulted in ongoing changes of Earth (e.g., erosion, El Nino).				X				X				
Science	13.B.2d	Compare the relative effectiveness of reducing, reusing and recycling in actual situations.			X									
Science	13.B.2f	Analyze how specific personal and societal choices that humans make affect local, regional and global ecosystems (e.g., lawn and garden care, mass transit).			X					X				

Category	Number	Standard	1	2	3	4	5	6	7	8	9	10	11	12
Science	13.B.3d	Analyze the interaction of resource acquisition, technological development and ecosystem impact (e.g., diamond, coal or gold mining; deforestation).								X	X			
Science	13.B.3e	Identify advantages and disadvantages of natural resource conservation and management programs.									X			
Science	13.B.3f	Apply classroom-developed criteria to determine the effects of policies on local science and technology issues (e.g., energy consumption, landfills, water quality).									X			
Social Studies	16.A.1a	Explain the difference between past, present and future time; place themselves in time.											X	
Social Studies	16.A.1c	Describe how people in different times and places viewed the world in different ways.		X										
Social Studies	16.E.1	(US) Describe how the local environment has changed over time.		X									X	
Social Studies	16.E.2a	(US) Identify environmental factors that drew settlers to the state and region.											X	X
Social Studies	17.A.1a	Identify physical characteristics of places, both local and global (e.g., locations, roads, regions, bodies of water).		X									X	
Social Studies	17.A.2a	Compare the physical characteristics of places including soils, land forms, vegetation, wildlife, climate, natural hazards.		X										
Social Studies	17.A.2b	Use maps and other geographic representations and instruments to gather information about people, places and environments.			X			X						
Social Studies	17.A.3b	Explain how to make and use geographic representations to provide and enhance spatial information including maps, graphs, charts, models, aerial photographs, satellite images.						X						
Social Studies	17.B.1a	Identify components of the Earth's physical systems.		X									X	
Social Studies	17.B.1b	Describe physical components of ecosystems.		X		X								
Social Studies	17.B.2a	Describe how physical and human processes shape spatial patterns including erosion, agriculture and settlement.							X					
Social Studies	17.B.3a	Explain how physical processes including climate, plate tectonics, erosion, soil formation, water cycle, and circulation patterns in the ocean shape patterns in the environment and influence availability and quality of natural resources.	X				X	X	X		X	X		X
Social Studies	17.B.3b	Explain how changes in components of an ecosystem affect the system overall.	X		X					X				
Social Studies	17.C.1a	Identify ways people depend on and interact with the physical environment (e.g., farming, fishing, hydroelectric power).		X									X	
Social Studies	17.C.1b	Identify opportunities and constraints of the physical environment.		X										
Social Studies	17.C.2a	Describe how natural events in the physical environment affect human activities.												X
Social Studies	17.C.2b	Describe the relationships among location of resources, population distribution and economic activities (e.g., transportation, trade, communications).						X						
Social Studies	17.C.2c	Explain how human activity affects the environment.			X					X	X	X		
Social Studies	17.C.3a	Explain how human activity is affected by geographic factors.		X				X						
Social Studies	17.D.1	Identify changes in geographic characteristics of a local region (e.g., town, community).												

Category	Number	Standard	1	2	3	4	5	6	7	8	9	10	11	12
Social Studies	17.D.2b	Identify different settlement patterns in Illinois and the United States and relate them to physical features and resources.											X	
Social Studies	17.D.3b	Explain how interactions of geographic factors have shaped present conditions.						X						X