

## Links to National Science Standards

Activity	Content Standards by Grade Level		
	K-4	5-8	9-12
<b>Great Lakes Overview</b>			
How big is a crowd?		F	C, F, G
How well do you know the GL?		A, F	C, D, F, G
Where should I relocate in the GL region?		F, H	A, C, D, F, G
200 Years of Change	F	F, G, H	
Ojibway-Early Immigrants to the Great Lakes Region		F, H	
Great Lakes, Great Careers	G	F, G	
<b>Life in the Water</b>			
Don't Stop for Hitchhikers!	C, F	A, C, F	
Who can harvest a walleye?		C, D	C, F, G
What are the characteristics of some GL fish?		A, C	C
<b>Habitats</b>			
What is the ecological role of an estuary?		A, C, E	C, D, F, G
Seeing Purple: A Population Explosion	A, C, F	A, C	
Hydropoly: A Decision-Making Game	F	F	
Wetland in a Pan	A, C, F	A, C, D, F	
<b>Climate &amp; Weather</b>			
How do the Great Lakes Modify the Growing Season		A, C, D, H	
Snowmaking- Great Lakes Style		A, D, F	
How does the temperature of the GL change over time?		A, D	A, D, G
Great Lakes Triangle set of 3 activities.		A, G, H	D, G
What happens to heat energy reaching the Great Lakes?		A, B, D	A, D, G
<b>Hydrology</b>			
Your Great Lake		D, F, H	
More than Just a Lake	D	D	
How does stratification affect water quality?		A, D, F, H	A, C, F, G
Making Great (Lakes) Connections	E	D, E	
Water Quantity		D, F	
<b>Coastal Processes</b>			
How did rocks and rivers shape the Great Lakes?		D	D, G
What evidence of glaciation exists in the GL?		D, F	C, D, F, G
How fast can a shoreline change? How much land is lost?		A, D, F	D, F, G
Indoor Dunes	C	C, D	
<b>Issues</b>			
Rival for Survival	C	C, F	
Beach Mysteries	F	C, F	
Exotic Puzzle - Title: What are the Characteristics of the Great Lakes Exotic Species?		C, F	
Invader Species of the Great Lakes (From GLEP)		C, F	
Where do the toxins go [internal, external]		B, C, F	C, F, G
Is the globe warming? Is there evidence in the Great Lakes region?		A, D, F, H	
Which Fish Can We Eat?		A, C, F	C, F, G
Whose Water?		A, F	

## **Student Learning Objectives**

### **A- Science as Inquiry**

As a result of activities in grades K-12, all students should develop

- Abilities necessary to do scientific inquiry.
- Understanding about scientific inquiry.

### **C- Life Science**

As a result of activities in grades K-4, all students should develop understanding of

- The characteristics of organisms
- Life cycles of organisms
- Organisms and their environment

As a result of activities in grades 5-8, all students should develop understanding of

- Structure and function in living systems
- Populations and ecosystems
- Diversity and adaptations of organisms

As a result of activities in grades 9-12, all students should develop understanding of

- Interdependence of organisms
- Matter, energy and organization in living systems
- Behavior of organisms

### **D- Earth and Space Science**

As a result of their activities in grades K-4, all students should develop an understanding of

- Properties of Earth materials
- Objects in the sky
- Changes in Earth and Sky

As a result of their activities in grades 5-8, all students should develop an understanding of

- Structure of the Earth system
- Earth's history
- Earth in the solar system

As a result of their activities in grades 9-12, all students should develop an understanding of

- Energy in the Earth system
- Geochemical cycles
- Origin and Evolution of the Earth system
- Origin and Evolution of the universe

### **F- Science in Personal and Social Perspectives**

As a result of activities in grades K-4, all students should develop understanding of

- Changes in environments
- Science and technology in local challenges

As a result of activities in grades 5-8, all students should develop understanding of

- Populations, resources and environments
- Risks and Benefits
- Science and technology in society

As a result of activities in grades 9-12, all students should develop understanding of

- Population growth
- National resources
- Environmental quality
- Natural and human-induced hazards
- Science and technology in local, national, and global challenges

### **G- History and Nature of science**

As a result of activities in grades K-12, all students should develop understanding of

- Science as a human endeavor
- Nature of scientific knowledge
- Historical perspectives.

## **H- Unifying Concepts and Processes**

As a result of activities in grades K-12, all students should develop understanding and abilities aligned with the following concepts and processes

- Systems, order, and organization
- Evidence, models, and explanation
- Constancy, change, and measurement
- Form and function