Great Lakes Literacy Principles

1. The Great Lakes are connected to the Great Lakes.
2. The Great Lakes influence local and regional weather and climate.
3. The Great Lakes support a broad diversity of life in the Great Lakes.
4. The Great Lakes sustain life on land and in the world ocean.
5. The ocean supports a great diversity of life and ecosystems.
6. The Great Lakes and humans in their watersheds are interrelated.
7. Much remains to be learned about the Great Lakes.
8. The Great Lakes are socially, economically, and environmentally significant to the region, the nation, and the planet.

Great Lakes Literacy is an understanding of the Great Lakes’ influences on you and your influence on the Great Lakes.
B. The Great Lakes are a major physical feature of North America and form part of the political boundaries between the United States and Canada.

C. The Great Lakes contain nearly 20 percent of the world's freshwater and have a coastline longer than the East Coast of the United States. Most of North America's fresh surface water (95 percent) is in the Great Lakes.

D. The Great Lakes, four respective waterways and waterways, and the ocean are all connected. Within the Great Lakes system, water flows from the upper lakes (Superior, Michigan, Huron, and Erie) through Lake St. Clair into Lake Erie, over Niagara Falls, and into Lake Ontario before flowing through the St. Lawrence River into the ocean. Rivers and streams transport nutrients, dissolved gases, salts and minerals, sediments, and pollutants from watersheds into the Great Lakes.

E. The Great Lakes are an integral part of the water cycle and are connected to the region's watersheds and water systems. Changes in water systems affect the quantity, quality, and movement of water, including interception time.

F. Water currents circulate within the Great Lakes and are powered by wind, waves, surf, and temperature differences. The shape of a lake and its geographic orientation, the direction of the prevailing winds, the shore, and the structure along the shores influence the path of circulation. Circulation between the lakes is driven by gravity.

G. Lake level is the height of the Great Lakes relative to sea level. Lake level changes are caused by variations in precipitation, evaporation, runoff, and the melting of ice. While tides are typically not discernible in the Great Lakes, swells are common in the lakes.

H. Regions of the Great Lakes exhibit the unique characteristics in the summer and winter under ice cover, forming distinct layers based on water temperature differences. Temperatures can vary in the spring and fall when cooler weather minimizes temperature differences and the layers mix. Turner is the main way that oxygen and nutrient-poor water in the deeper areas of the lakes can be mixed with oxygen and nutrient-rich surface water.

I. Although the Great Lakes are large, they are finite and their resources are limited.

J. Natural forces formed the Great Lakes, and the lakes continue to shape the features of their watersheds.

K. The Great Lakes are one of the most productive areas of the world, supporting a diverse array of plants and animals. The lakes provide important and productive nursery areas for many aquatic and terrestrial species, as well as non-native species introduced unintentionally and uninvited.

L. The economy is diverse in the Great Lakes, with major sectors in industry, recreation and tourism, agriculture, commercial and sport fisheries, forestry, and mining.

M. The Great Lakes are a source of inspiration, recreation, rejuvenation, and discovery. They are also an important element in the heritage of many cultures.

N. The waters of the Great Lakes have been significant to historical settlement and development. The lakes' names and the names of many cities, counties, and landmarks along their shores have their origin in the heritage of many cultures.

O. The Great Lakes are a model of environmental programs and initiatives. Proper foresight and informed decision making are needed to protect the Great Lakes ecosystem.