

Lessons for Living Environment

Standard 1: Students will use mathematical analysis, scientific inquiry, and engineering design, as appropriate, to pose questions, seek answers, and develop solutions.

		Key Idea 1: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing and creative process.				Key Idea 2: Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity.				Key Idea 3: The observations made while testing proposed explanations, when analyzed using conventional and invented methods, provide new insights into natural phenomena.				
Lesson		1.1	1.2	1.3	1.4	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	3.5
Hudson River Ecosystem	A1- A Journey Down the Hudson River		X	X		X	X			X		X	X	
	A2- Hudson River Tides	X	X	X			X	X		X		X	X	X
	A3- Watersheds	X	X			X	X	X	X	X			X	
	A4- Hudson Valley Rocks		X			X	X	X		X			X	
	A5- Glacial Groundwater	X	X			X	X	X	X	X		X	X	X
	B1- Hudson Food Webs	X	X	X			X	X		X		X	X	X
	B2-Biomanipulation	X	X			X	X	X	X	X		X	X	
	B3- An Aquatic Ecosystem		X	X	X	X	X	X	X	X		X	X	X
	B4- Ecosystem Disturbance		X					X		X		X	X	
	B5- The Nitrogen Cycle	X	X	X	X	X	X	X	X	X		X	X	X
	C1- Introduction to Dissolved Oxygen	X		X		X		X	X	X		X	X	
	C2- Understanding and Creating Graphs in Excel	X								X				
	C3- Inquiry Oxygen	X	X	X	X	X	X	X	X	X			X	X
	C4- Dissolved Oxygen and Temperature	X	X					X			X		X	
	C5- Respiration	X	X	X		X		X	X	X			X	
	C6- Photosynthesis	X	X		X	X	X	X	X	X			X	
	C7- Animals and Dissolved Oxygen	X	X	X	X	X		X	X	X		X	X	
	C8- Photosynthesis and Respiration Combined	X	X	X	X	X	X	X	X	X		X	X	
	C8A- Aquatic Interactions	X			X	X	X	X	X	X		X	X	
C9- Dissolved Oxygen and Decomposition	X			X	X	X	X	X	X		X	X		

	Invasive Species Overview	X	X	X			X			X				X
Invasive Species	2B1- Zebra Mussel Invasion	X	X	X	X	X	X	X	X	X		X	X	
	2B2- Graphing Zebra Mussel Data	X		X	X					X		X	X	
	2C1- Aquatic Plant Invasion	X	X	X	X	X	X	X	X	X		X	X	
	2C2- Graphing Water Chestnut Data	X		X	X					X		X	X	
	2C3- The Effect of Water Chestnuts on Macroinvertebrates	X		X	X	X	X			X		X	X	
	2C4- Water Chestnut and Hypoxia	X			X	X	X			X		X	X	
	2D: Common Reed, A Marsh Invasive	X	X	X	X	X	X	X		X			X	
	2E: Invasive Species Research Project	X												
Weather & Climate	3A1- What about carbon dioxide?	X				X	X	X	X	X		X	X	
	3A2- Effects of Temperature on Organisms					X	X	X	X	X		X	X	
	3A3- Long-Term Temperature Changes in the Hudson River	X	X	X				X						
	3A4- Climate Change Solutions Summit	X	X	X	X		X							X
	3B1- Storms & Streams	X	X	X	X	X	X	X	X	X		X	X	
	3B2- A Storm's Effect on Wappinger Creek		X	X	X	X				X			X	
	3B3- Hurricane!		X	X	X	X				X			X	
	3B4- How Much Water is in That River?	X					X	X		X				
Pollution	4A1- Water Quality Introduction	X	X	X										
	4A2- Is our water healthy?	X	X	X	X	X	X	X	X	X		X	X	X
	4A3- Importance of Soils	X	X			X	X	X	X	X		X	X	
	4A4- Permeability of Soils	X			X	X	X	X	X	X		X	X	
	4A5- School Water Budget	X	X	X	X	X	X	X	X	X		X	X	X
	4A6- Land Use & Water Quality	X	X	X	X	X	X	X	X	X		X	X	X
	4A7- Bottled vs. Tap Water	X	X	X	X									
	4B1- How much salt?	X	X			X	X	X	X	X		X	X	
	4B2- Why is it so salty?	X	X	X	X	X	X	X	X	X		X	X	X
	4C1- Can you swim in the Hudson?	X	X	X	X	X	X	X	X	X		X	X	
Land Use Change	4C2- Historic Water Pollution	X	X	X	X		X			X			X	
	4 C4- The Hudson and Eutrophication	X	X	X	X		X						X	
	5A-Land Use Change Introduction	X	X	X	X									
	5B- Paleoclimate in the Hudson Valley	X	X	X	X	X			X	X		X	X	
Land Use Change	5C- Land Use Change Since 1609	X	X	X	X	X			X	X		X	X	
	5D- Importance of Soils	X	X			X	X	X	X	X		X	X	

