Update 2026

Science Objective Correlation with *ACE Education* activities

Standard applicable to ACE Ed - details below

LS.8.2	Understand how organisms interact with and respond to the biotic and abiotic factors in their environment.
	LS.8.2.1 Carry out investigations to explain how changing biotic and abiotic factors such as food, water, shelter, and space affect populations in an ecosystem
	LS.8.2.2 Construct an explanation to summarize the relationships among producers, consumers, and decomposers including the positive and negative consequences of such interactions including: coexistence and cooperation, competition (Predator/Prey), parasitism, and mutualism.
	LS.8.2.4 Use models to explain how the flow of energy within food webs is interconnected with the cycling of matter (water and carbon).
ESS.8.3	Understand the reciprocal relationship between the hydrosphere and humans
	ESS.8.3.1 Analyze and interpret data to predict the safety and potability of water supplies in North Carolina based on physical and biological factors, including: temperature, dissolved oxygen, pH, nitrates and phosphates, turbidity, and bio-indicators
ESS.8.4	Understand the environmental implications associated with the various methods of obtaining, managing, and using energy resources
	ESS.8.4.1 Construct an explanation to classify the primary sources of energy as either renewable (Geothermal, Biomass, Solar, Wind, Hydroelectric) or nonrenewable (Coal, Petroleum, Natural Gas, Nuclear).
	ESS.8.4.4 Obtain, evaluate, and communicate information to compare the long term implications of the use of renewable and nonrenewable energy resources and the importance of stewardship and conservation.

GRADE	STRAND	ACTIVITY	STANDARD
8	Earth and Human Activity	Water Quality - Pond & Stream	ESS.8.3.1
		Fossil Fuel Game	ESS.8.4.1 & ESS.8.4.4
	Ecosystems - Interactions, Energy, & Dynamics	Ecosystems in depth	LS.8.2.1 & LS.8.2.2
		Wildlife & Habitat	LS.8.2.1
		Food Web/Pond Life	LS.8.2.2 & LS.8.2.4
		Food Web/Terrestrial Life	LS.8.2.2 & LS.8.2.4
		Nutrient Cycle	LS.8.2.2 & LS.8.2.4
	Earth's Systems	Water Cycle	ESS.8.2