Environmental Science RESOURCES AND RESOURCE MANAGEMENT	
Louisiana Student Standards	**Louisiana Connectors (LC)**
HS-EVS1-1 Analyze and interpret data to identify the factors that affect sustainable development and natural resource management in Louisiana.	**LC-HS-EVS1-1a** Identify factors (e.g., human activity, population size, types of crops grown) that affect sustainable development in Louisiana.
	LC-HS-EVS1-1b Identify factors (e.g., human activity, population size, types of crops grown) that affect natural resource management in Louisiana.
HS-EVS1-2 Obtain, evaluate and communicate information on the effectiveness of management or conservation practices for one of Louisiana's natural resources with respect to common considerations such as social, economic, technological, and influencing political factors over the past 50 years.	**LC-HS-EVS1-2a** Identify the effectiveness of management practices for one of Louisiana's natural resources related to social factors over the past 50 years.
	LC-HS-EVS1-2b Identify the effectiveness of management practices for one of Louisiana's natural resources related to economic factors over the past 50 years.
	LC-HS-EVS1-2c Identify the effectiveness of management practices for one of Louisiana's natural resources related to technological factors over the past 50 years.
	LC-HS-EVS1-2d Identify the effectiveness of management practices for one of Louisiana's natural resources related to political factors over the past 50 years.
HS-EVS1-3 Analyze and interpret data about the consequences of environmental decisions to determine the risk-benefit values of actions and practices implemented for selected issues.	**LC-HS-EVS1-3a** Identify the risk-benefit values of implemented actions using data for selected environmental issues.
	LC-HS-ESV1-3b Identify the risk-benefit values of implemented practices using data for selected environmental issues.

Environmental Science ENVIRONMENTAL AWARENESS AND PROTECTION	
Louisiana Student Standards	**Louisiana Connectors (LC)**
HS-EVS2-1 Design and evaluate a solution to limit the introduction of non-point source pollution into state waterways.	**LC-HS-EVS2-1a** Use data or qualitative scientific and technical information to evaluate a solution to limit a non-point source pollution (e.g., land or urban runoff, abandoned mines) into state waterways.
HS-EVS2-2 Use a model to predict the effects that pollution as a limiting factor has on an organism's population density.	**LC-HS-EVS2-2a** Recognize the relationship between pollution and its effect on an organism's population size.
	LC-HS-EVS2-2b Predict the effects that pollution as a limiting factor has on an organism's population density using a model (e.g., mathematical, diagrams, simulations).
HS-EVS2-3 Use multiple lines of evidence to construct an argument addressing the negative impacts that introduced organisms have on Louisiana's native species.	**LC-HS-EVS2-3a** Evaluate evidence supporting an argument regarding negative impacts of introduced organisms (e.g., zebra mussel, fire ant, nutria) have on Louisiana's native species.

Environmental Science PERSONAL RESPONSIBILITIES	
Louisiana Student Standards	**Louisiana Connectors (LC)**
HS-EVS3-1 Construct and evaluate arguments about the positive and negative consequences of using disposable resources versus reusable resources.	**LC-HS-EVS3-1** Evaluate evidence supporting the positive consequences of using disposable resources versus reusable resources.
	LC-HS-EVS3-2 Evaluate evidence supporting the negative consequences of using disposable resources versus reusable resources.

Environmental Science EARTH'S SYSTEMS	
Louisiana Student Standards	**Louisiana Connectors (LC)**
HS-ESS2-2 Analyze geoscience data to make the claim that one change to Earth's surface can create feedbacks that cause changes to other Earth's systems.	**LC-HS-ESS2-2a** Identify relationships, using a model, of how the Earth's surface is a complex and dynamic set of interconnected systems (i.e., geosphere, hydrosphere, atmosphere, and biosphere).
HS-ESS2-4 Analyze and interpret data to explore how variations in the flow of energy into and out of Earth's systems result in changes in atmosphere and climate.	**LC-HS-ESS2-4a** Identify different causes of climate change and results of those changes with respect to the Earth's surface temperatures, precipitation patterns or sea levels over a wide range of temporal and spatial scales using a model.
HS-ESS2-5 Plan and conduct an investigation on the properties of water and its effects on Earth materials and surface processes.	**LC-HS-ESS2-5a** Identify a connection between the properties of water and its effects on Earth materials.
	LC-HS-ESS2-5b Investigate the effects of water on Earth materials and/or surface processes.
HS-ESS2-6 Develop a quantitative model to describe the cycling of carbon among the hydrosphere, atmosphere, geosphere, and biosphere.	**LC-HS-ESS2-6a** Use a model of photosynthesis to identify that carbon is exchanged between living and nonliving systems.
	LC-HS-ESS2-6b Use a model of cellular respiration to identify that carbon is exchanged between living and nonliving systems.
	LC-HS-ESS2-6c Develop and/or use a quantitative model to identify relative amount of and/or the rate at which carbon is transferred among hydrosphere, atmosphere, geosphere, and biosphere.

Environmental Science HUMAN SUSTAINABILITY	
Louisiana Student Standards	**Louisiana Connectors (LC)**
HS-ESS3-1 Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.	**LC-HS-ESS3-1a** Explain the relationship between human activity (e.g., population size, where humans live, types of crops grown) and changes in the amounts of natural resources using evidence.
	LC-HS-ESS3-1b Explain the relationship between human activity (e.g., population size, where humans live, types of crops grown) and changes in the occurrence of natural hazards using evidence.
HS-ESS3-2 Evaluate competing design solutions for developing, managing, and utilizing energy and mineral resources based on cost-benefit ratios.	**LC-HS-ESS3-2a** Identify a solution that demonstrates the most preferred cost-benefit ratios for developing, managing, and utilizing energy and mineral resources (i.e., conservation, recycling, and reuse of resources).
	LC-HS-ESS3-2b Compare design solutions for developing, managing, and/or utilizing energy or mineral resources.
HS-ESS3-3 Create a computational simulation to illustrate the relationships among management of natural resources, the sustainability of human populations, and biodiversity.	**LC-HS-ESS3-3** Use numerical data to determine the effects of a conservation strategy to manage natural resources and to sustain human society and plant and animal life.
HS-ESS3-4 Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.	**LC-HS-ESS3-4a** Connect a technological solution (e.g., wet scrubber; baghouse) to its outcome (e.g., clean air) and its outcome to the human activity impact that it is reducing (e.g., air pollution).
HS-ESS3-6 Use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity.	**LC-HS-ESS3-6a** Use representations to describe the relationships among Earth systems and how those relationships are being modified due to human activity (e.g., increase in atmospheric carbon dioxide, increase in ocean acidification, effects on organisms in the ocean such as coral reef, carbon cycle of the ocean, possible effects on marine populations).

Environmental Science ECOSYSTEMS: INTERACTIONS, ENERGY AND DYNAMIC	
Louisiana Student Standards	**Louisiana Connectors (LC)**
HS-LS2-1 Use mathematical and/or computational representations to support explanations of factors that affect carrying capacity, biodiversity and populations of ecosystems at different scales.	**LC-HS-LS2-1a** Recognize that the carrying capacities of ecosystems are related to the availability of living and nonliving resources and challenges (e.g., predation, competition, disease).
	LC-HS-LS2-1b Use a graphical representation to identify carrying capacities in ecosystems as limits to the numbers of organisms or populations they can support.
HS-LS2-4 Use mathematical representations to support claims for the cycling of matter and flow of energy among organisms in an ecosystem.	**LC-HS-LS2-4a** Use a graphical or mathematical representation to identify the changes in the amount of matter as it travels through a food web.
	LC-HS-LS2-4b Use a graphical or mathematical representation to identify the changes in the amount of energy as it travels through a food web.
HS-LS2-6 Evaluate the claims, evidence and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem.	**HS-LS2-6a** Use evidence to identify how modest biological or physical changes versus extreme changes affect stability and change (e.g., number and types of organisms) in ecosystems.
	HS-LS2-6b Evaluate explanations of how living things in an ecosystem are affected by changes in the environment (e.g., changes to the food supply, climate change, or the introduction of predators).
	HS-LS2-6c Evaluate explanations of how interactions in ecosystems maintain relatively stable conditions, but changing conditions may result in a new ecosystem.
HS-LS2-7 Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.	**LC-HS-LS2-7a** Describe how people can help protect the Earth's environment and biodiversity (e.g., preserving ecosystems) and how a human activity would threaten Earth's environment and biodiversity (e.g., pollution, damaging habitats, over hunting).
	LC-HS-LS2-7b Evaluate or refine a solution to changes in an ecosystem (biodiversity) resulting from a human activity.