

Implementing Common Core and Essential Standards

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Overall Essential Standard 6.L.2

Students will understand the flow of energy through ecosystems and the responses of populations to the biotic and abiotic factors in their environment.

Substandard 6.L.2 *Students will summarize how energy derived from the sun is used by plants to produce sugars and is transferred within food chains and food webs from producers to consumers to decomposers.*

Students will focus on the carbon cycle and the identification of greenhouse gases versus regular gases. Students will investigate how carbon emissions affect the level of greenhouse gases in our atmosphere and identify major contributors to carbon emissions.

Substandard 6.L.2.3 *Summarize how the abiotic factors of freshwater, marine, forest, grassland, desert, and Tundra biomes affect the ability of organisms to grow, survive, and/or create their own food through photosynthesis.*

Students will work with expert group to investigate all biomes and explain change over time in temperature, water quality and availability, and soil properties. Students will describe how these changes have affected the plant and animal life within the ecosystem.

Writing Standard W.6.1 *Students will write arguments to support claims with clear reasons and relevant evidence.*

Writing Standard W.6.2 *Students will write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.*

Students will research and write a paper about an environmental issue.

Mathematics Standard 6.SP.5 *Students will summarize numerical data sets in relation to their context such as the number and nature of observations and describe the nature of the attribute under investigation.*

Students will analyze graphs and charts as they pertain to global climate change. Students will graph their research findings in the culmination project and analyze data of the carbon footprint and plastic bottles activity.