

## Appendix 1

### Implementing Common Core and Essential Standards

**Overall Standard 6.L.:** *Understand the structures, processes, and behaviors of plants that enable them to survive and reproduce.*

*Substandard 6.L.1.2: Explain the significance of the processes of photosynthesis, respiration, and transpiration to the survival of green plants and other organisms. Students will research and explain the processes of photosynthesis, cellular respiration, and transpiration.*

**Overall Standard 6.L.2:** *Students will understand the flow of energy through ecosystem and the responses of populations to the biotic and abiotic factors in their environment.*

*Substandard 6.L.2.1: Students will summarize how energy derived from the sun is used by plants to produce sugars (photosynthesis) and is transferred within a food chain or food web (terrestrial and aquatic) from producers to consumers to decomposers. Students will identify how decomposers affect the nitrogen cycle and how abiotic factors can influence the success of the cycle. Students will select an ecosystem and an organism within the ecosystem and map the flow of energy for that organism.*

*Substandard 6.L.2.3: Summarize how the abiotic factors such as temperature, water, sunlight, and soil quality of affect the ability of organisms to complete photosynthesis. Students will examine how abiotic and biotic factors can become limiting factors.*

**Overall Technology Standard 6.TT.1:** *Students will use technology and other resources for the purpose of accessing, organizing, and sharing information.*

*Substandard 6.TT.1.1: Students will select appropriate technology tools to gather data and information (e.g., Web-based resources, e-books, online communication tools, etc.).*

*Substandard 6.TT.1.3: Students will select appropriate technology tools to present data and information effectively.*

Students will use text and web resources to research ecosystems and organisms within the ecosystem.

**Common Core Standard CCSS.ELA-Literacy.RST.6-8.9:** *Compare and contrast the information gained from multiple sources.*

Students will analyze written text and visual models to determine the flow of energy of an organism through a chosen ecosystem.