Grades 6–8

3.4.6-8.E Environmental Literacy and Sustainability: Environmental Literacy Skills

Students who demonstrate understanding can *collect, analyze, and interpret environmental data to describe a local environment.*

Clarifying Statement: Emphasis is on collecting information from a local outdoor area in order to accurately describe that environment. Examples could include weather data, stream studies, data on air quality, biodiversity assessments, and so on.

Assessment Boundary: N/A

Science and Engineering Practices (SEP)	Disciplinary Core Ideas (DCI)	Crosscutting Concepts (CCC)
Analyzing and Interpreting Data Analyzing data in 6–8 builds on K–5 and progresses to extending quantitative analysis to investigations, distinguishing between correlation and causation, and basic statistical techniques of data and error analysis. • Analyze and interpret data to determine similarities and differences in findings.	**Interdependent Relationships in Ecosystems** • Organisms, and populations of organisms, are dependent on their environmental interactions both with other living things and with nonliving factors. **Weather and Climate** • Weather and climate are influenced by interactions involving sunlight, the ocean, the atmosphere, ice, landforms, and living things. These interactions vary with latitude, altitude, and local and regional geography, all of which can affect oceanic and atmospheric flow patterns.	**Patterns** • Patterns in rates of change and other numerical relationships can provide information about natural systems.

Pennsylvania Context: Examples of Pennsylvania context include but are not limited to local Pennsylvania colleges and universities, nature centers, Pennsylvania Conservation Districts, and science museums.

PA Career Ready Skills: Interact with others demonstrating respect, cooperation, and acceptance.

Connections to Other Standards Content and Practices

Standard Source	Possible Connections to Other Standard(s) or Practice(s)
Agriculture (AFNR)	CS.02.01.01.a: Research and describe different types of geographic data used in AFNR systems.

Standard Source	Possible Connections to Other Standard(s) or Practice(s)
Science, Environmental Literacy and Sustainability (NAAEE)	5-8 Strand 1.C. Collecting information: Learners locate and collect quantitative and qualitative information about the environment and environmental topics, using a range of methods and sources. They explain why they used selected information collection methods. 5-8 Strand 2.1.B. Earth's living systems: Learners identify basic similarities and differences among a wide variety of living organisms. They explain ways that living organisms, including humans, affect the environment in which they live, and how their environment affects them.
PA Core Standards: ELA	N/A
PA Core Standards and Practices: Math	MP.2: Reason abstractly and quantitatively. CC.2.4.7.B.3: Investigate chance processes and develop, use, and evaluate probability models. CC.2.4.7.B.1: Draw inferences about populations based on random sampling concepts.
PA Standards: Social Studies	7.2.6.A: Describe the characteristics of places and regions.
Educational Technology (ISTE)	1.3. Knowledge Constructor: Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.
Technology and Engineering (ITEEA)	STEL-3G: Explain how knowledge gained from other content areas affects the development of technological products and systems.