Grades 3–5

3.4.3-5.F Environmental Literacy and Sustainability: Sustainability and Stewardship

Students who demonstrate understanding can *critique ways that people depend on and change the environment.*

Clarifying Statement: This could include both positive and negative ways that people depend on and impact the environment. Examples include but are not limited to water, fuel, food, land, and recreation.

Assessment Boundary: N/A

Science and Engineering Practices (SEP)	Disciplinary Core Ideas (DCI)	Crosscutting Concepts (CCC)
Obtaining, Evaluating, and Communicating Information Obtaining, evaluating, and communicating information in 3–5 builds on K–2 experiences and progresses to evaluate the merit and accuracy of ideas and methods. • Obtain and combine information from books and/or other reliable media to explain phenomena or solutions to a design problem. **Engaging in Argument From Evidence** Engaging in argument from evidence in 3–5 builds on K–2 experiences and progresses to critiquing the scientific explanations or solutions proposed by peers by citing relevant evidence about the natural and designed world(s). • Construct and/or support an argument with evidence, data, and/or a model.	**Natural Resources** • Energy and fuels that humans use are derived from natural sources, and their use affects the environment in multiple ways. Some resources are renewable over time, and others are not. **Human Impacts on Earth Systems** • Human activities in agriculture, industry, and everyday life have had major effects on the land, vegetation, streams, ocean, air, and even outer space. But individuals and communities are doing things to help protect Earth's resources and environments.	**Cause and Effect** • Cause and effect relationships are routinely identified and used to explain change. **Stability and Change** • Change is measured in terms of differences over time and may occur at different rates.

Pennsylvania Context: Examples of Pennsylvania context include but are not limited to Pennsylvania land use practices such as urbanization, sprawl, transportation, heat, agriculture, waste, energy, recreation, and mining.

PA Career Ready Skills: Select and utilize expressive communication strategies (e.g., tone, body language, facial expressions) with an understanding of its effect on others.

Connections to Other Standards Content and Practices

Standard Source	Possible Connections to Other Standard(s) or Practice(s)
Agriculture (AFNR)	CS.04.01.01.b: Analyze available practices to steward natural resources in AFNR systems (e.g., wildlife and land conservation, soil and water practices, ecosystem management, etc.).
Science, Environmental Literacy and Sustainability (NAAEE)	K-4 Strand 2.3.A. Human-environment interactions: Learners identify ways that people depend on, change, and are affected by the environment.
PA Core Standards: ELA	CC.1.2.3.B: Ask and answer questions about the text and make inferences from text; refer to text to support responses. CC.1.2.4.B: Refer to details and examples in text to support what the text says explicitly and make inferences. CC.1.2.5.B: Cite textual evidence by quoting accurately from the text to explain what the text says explicitly and make inferences. CC.1.4.3.V: Conduct short research projects that build knowledge about a topic. CC.1.4.4.V: Conduct short research projects that build knowledge through investigation of different aspects of a topic. CC.1.4.5.V: Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
PA Core Standards and Practices: Math	MP.2: Reason abstractly and quantitatively. MP.4: Model with mathematics. MP.5: Use appropriate tools strategically. CC.2.4.4.A.4: Represent and interpret data involving fractions using information provided in a line plot.
PA Standards: Social Studies	7.4.3.B: Identify the effect of people on the physical systems within a community.
Educational Technology (ISTE)	1.6. Creative Communicator: Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.
Technology and Engineering (ITEEA)	STEL-4I: Explain why responsible use of technology requires sustainable management of resources.