Grades 3–5

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

Students who demonstrate understanding can *construct an argument to support whether action is needed on a selected environmental issue and propose possible solutions.*

Clarifying Statement: Using the claim-evidence-reasoning model or other critical thinking processes, students analyze and synthesize data they have personally collected or compiled from provided sources to support their claims and proposed stewardship actions.

Assessment Boundary: N/A

Science and Engineering Practices (SEP)	Disciplinary Core Ideas (DCI)	Crosscutting Concepts (CCC)
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). • Make a claim about the merit of a solution to a problem by citing relevant evidence about how it meets the criteria and constraints of the problem. **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 solutions to a design problem.	**Biodiversity and Humans** • Populations live in a variety of habitats, and change in those habitats affects the organisms living there. **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. **Patterns** • Patterns of change can be used to make predictions.

Pennsylvania Context: Examples of Pennsylvania context include but are not limited to Pennsylvania-specific laws, policies, regulations, and agreements such as the Pennsylvania Environmental Plan, Pennsylvania's Environmental Rights Amendment, and the Chesapeake Bay Agreement.

PA Career Ready Skills: Identify multiple ways to solve conflicts and practice solving problems.

Connections to Other Standards Content and Practices

Standard Source	Possible Connections to Other Standard(s) or Practice(s)
Agriculture (AFNR)	CS.04.02.02.c: Design and implement strategies for implementing a new natural resources policy that will positively impact AFNR systems.
Science, Environmental Literacy and Sustainability (NAAEE)	K-4 Strand 3.2.B. Evaluating the need for action: Learners determine whether action is needed on selected environmental issues and whether they should be involved. They describe their reasoning.
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.1.5.3-5.A: Engage effectively in a range of collaborative discussions on grade-level topics and texts, building on others' ideas and expressing their own clearly.
PA Core Standards and Practices: Math	MP.2: Reason abstractly and quantitatively. MP.4: Model with mathematics. CC.2.4.4.A.4: Represent and interpret data involving fractions using information.
PA Standards: Social Studies	5.2.3.A: Identify personal rights and responsibilities. 5.2.5.D: Identify specific ways individuals participate in school and community activities. 5.3.5.G: Describe how groups try to influence others.
Educational Technology (ISTE)	1.4. Innovative Designer: Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.
Technology and Engineering (ITEEA)	STEL-1I: Explain how solutions to problems are shaped by economic, political, and cultural forces.