Grades 3–5

3.4.3-5.G Environmental Literacy and Sustainability: Environmental Literacy Skills

Students who demonstrate understanding can *investigate how perspectives over the use of resources and the development of technology have changed over time and resulted in conflict over the development of societies and nations.*

Clarifying Statement: Emphasis is on diverse points of view that may change over time due to new information, developing technology, priorities, or competition for finite resources.

Assessment Boundary: N/A

Science and Engineering Practices (SEP)	Disciplinary Core Ideas (DCI)	Crosscutting Concepts (CCC)
Analyzing and Interpreting Data Analyzing data in 3–5 builds on K–2 experiences and progresses to introducing quantitative approaches to collecting data and conducting multiple trials of qualitative observations. When possible and feasible, digital tools should be used. • Analyze and interpret data to make sense of phenomena using logical reasoning. **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 other reliable media to explain phenomena. **Using Mathematics and Computational Thinking** Mathematical and computational thinking in 3–5 builds on K–2 experiences and progresses to extending quantitative measurements to a variety of physical properties and using computation and mathematics to analyze data and compare alternative design solutions. • Organize simple data sets to reveal patterns that suggest relationships.	**ESS3.A: 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. **ESS3.C: 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, tested, 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 Environmental Justice Area designations or Environmental Health Indicators.

PA Career Ready Skills: Select coping skill strategies response to adverse situations (e.g., positive self-talk, talking to others, taking a break, taking care of oneself, avoiding negative self-talk).

Connections to Other Standards Content and Practices

Standard Source	Possible Connections to Other Standard(s) or Practice(s)
Agriculture (AFNR)	CS.01.02.02.a: Compare and contrast AFNR systems before and after the integration of technology.
Science, Environmental Literacy and Sustainability (NAAEE)	K-4 Strand 2.3.D. Change and conflict: Learners recognize that change is a normal part of individual and societal life. They describe examples of ways that conflict related to the environment or natural resources may be rooted in different points of view.
PA Core Standards: ELA	CC.1.5.3.B: Determine the main ideas and supporting details of a text read aloud or information presented in diverse media formats, including visually, quantitatively, and orally. CC.1.5.4.B: Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. CC.1.5.5.B: Summarize the main points of written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. CC.1.5.3.D: Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details; speak clearly with adequate volume, appropriate pacing, and clear pronunciation. CC.1.5.4.D: Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly with adequate volume, appropriate pacing, and clear pronunciation. CC.1.5.5.D: Report on a topic or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly with adequate volume, appropriate pacing, and clear pronunciation.
PA Core Standards and Practices: Math	MP.2: Reason abstractly and quantitatively. CC.2.4.4.A.4: Represent and interpret data involving fractions using information provided in a line plot.
PA Standards: Social Studies	5.2.3.B: Identify the sources of conflict and disagreement and different ways conflict can be resolved.
Educational Technology (ISTE)	1.7. Global Collaborator: Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.
Technology and Engineering (ITEEA)	STEL-5E: Explain how technologies are developed or adapted when individual or societal needs and wants change.