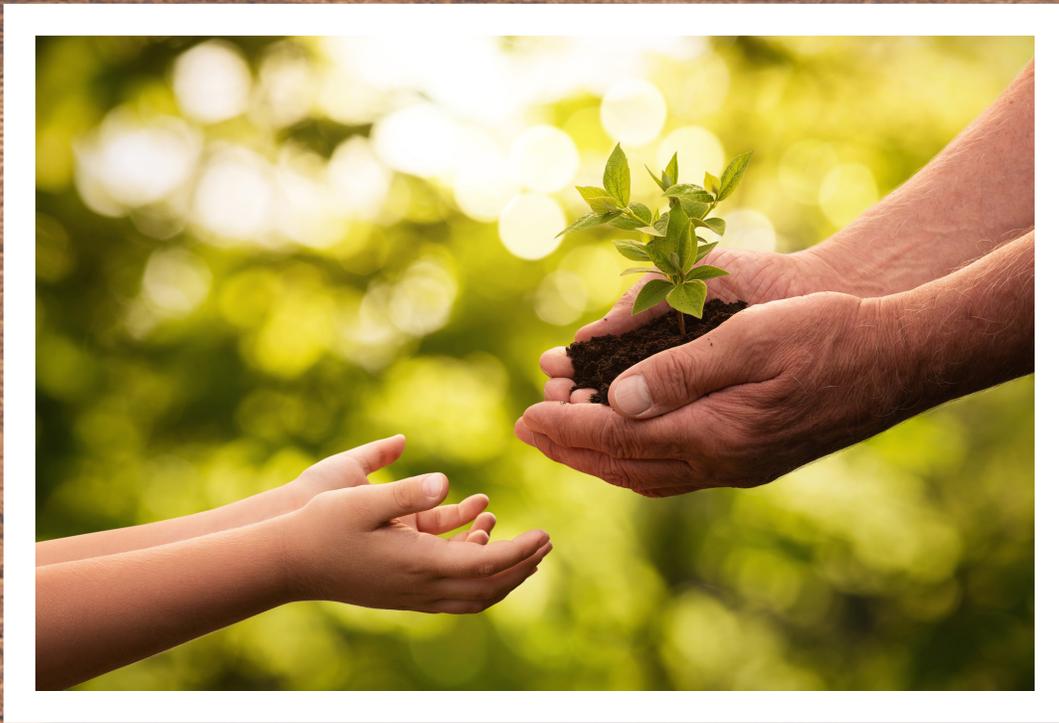


Curriculum & Standards



PENNSYLVANIA ACADEMIC STANDARDS

READING	
Reading Informational Text: Students read, understand, and respond to informational text—with an emphasis on comprehension, vocabulary acquisition, and making connections among ideas and between texts with focus on textual evidence.	
CC.1.2.9-10.A.B CC.1.2.11-12.A.B	(9-10) Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text. (11-12) Determine and analyze the relationship between two or more central ideas of a text, including the development and interaction of the central ideas; provide an objective summary of the text.
CC.1.2.9-10.C CC.1.2.11-12.C	(9-10) Apply appropriate strategies to analyze, interpret, and evaluate how an author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them. (11-12) Analyze the interaction and development of a complex set of ideas, sequence of events, or specific individuals over the course of the text.
CC.1.2.9-10.G CC.1.2.11-12.G	(9-10) Analyze various accounts of a subject told in different mediums (e.g., a person's life story in both print and multimedia), determining which details are emphasized in each account. (11-12) Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.
CC.1.2.9-10.J CC.1.2.11-12.J	(9-10)(11-12) Acquire and use accurately general academic and domain specific words and phrases, sufficient for reading, writing, speaking, and listening at the college- and career-readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.
CC.1.2.9-10.L CC.1.2.11-12.L	(9-10)(11-12) Read and comprehend literary nonfiction and informational text on grade level, reading independently and proficiently
WRITING	
Students write for different purposes and audiences. Students write clear and focused text to convey a well-defined perspective and appropriate content.	
CC.1.4.9-10.A CC.1.4.11-12.A	(9-10)(11-12) Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately.
CC.1.4.9-10.H CC.1.4.11-12.H	(9-10) Write with a sharp, distinct focus identifying topic, task, and audience. Introduce the precise claim. (11-12) Write with a sharp, distinct focus identifying topic, task, and audience. Introduce the precise, knowledgeable claim.
CC.1.9-10.U	(9-10) Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.



PENNSYLVANIA ACADEMIC STANDARDS

SPEAKING AND LISTENING		Students present appropriately in formal speaking situations, listen critically, and respond intelligently as individuals or in group discussions.
CC.1.5.9-10.A CC.1.5.11-12.A	(9-10)(11-12) Initiate and participate effectively in a range of collaborative discussions on grade-level topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.	
CC.1.5.9-10.D CC.1.5.11-12.D	(9-10)(11-12) Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning; ensure that the presentation is appropriate to purpose, audience, and task.	
HISTORY		
8.1.9.A	Compare the interpretation of historical events and sources, considering the use of facts versus opinion, multiple perspectives, and cause and effect relationships.	
8.1.9.B	Compare patterns of continuity and change over time, applying context of events.	
SCIENCE AND TECHNOLOGY		
Crosscutting Concepts & Unifying Themes		
Patterns	Observed patterns of forms and events guide organization and classification, and the prompt questions about relationships and the factors that influence them.	
	Students observe patterns in systems at different scales and cite patterns as empirical evidence for causality in supporting their explanations of phenomena.	
Cause and Effect	Mechanism and explanation. Events have causes, sometimes simple, sometimes multifaceted. A major activity of science is investigating and explaining causal relationships and the mechanisms by which they are mediated. Such mechanisms can then be tested across given contexts and used to predict and explain events in new contexts.	
	Students understand that empirical evidence is required to differentiate between cause and correlation and to make claims about specific causes and effects.	
Structure and Function	The way in which an object or living thing is shaped and its substructure determine many of its properties and functions.	
	Students investigate systems by examining the properties of different materials, the structures of different components, and their interconnections to reveal the system's function and/or solve a problem.	
Systems and System Models	Defining the system under study – specifying its boundaries and making explicit a model of that system – provides tools for understanding and testing ideas that are applicable throughout science and engineering.	
	Students can use models and simulations to predict the behavior of a system, and recognize that these predictions have limited precision and reliability due to the assumptions and approximations inherent in the models.	

