



Grade 5

3.2.5.C Physical Science: Matter and Its Interactions

Students who demonstrate understanding can *interpret and analyze data to make decisions about how to utilize materials based on their properties.*

Clarifying Statement: N/A

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. <ul style="list-style-type: none"> Represent data in graphical displays (bar graphs, pictographs and/or pie charts) to reveal patterns that indicate relationships. 	Structure and Properties of Matter <ul style="list-style-type: none"> Measurements of a variety of properties can be used to identify materials. (Boundary: At this grade level, mass and weight are not distinguished, and no attempt is made to define the unseen particles or explain the atomic-scale mechanism of evaporation and condensation.) 	Scale, Proportion, and Quantity <ul style="list-style-type: none"> Standard units are used to measure and describe physical quantities such as weight, time, temperature, and volume.

Pennsylvania Context: N/A

PA Career Ready Skills: Identify consequences of a decision to oneself and others prior to action.

Connections to Other Standards Content and Practices

Standard Source	Possible Connections to Other Standard(s) or Practice(s)
Agriculture (AFNR)	CS.01.02.01.c: Solve problems in AFNR work-places or scenarios using technology.
Science, Environmental Literacy and Sustainability (NAAEE)	5-8 Strand 1.E. Organizing and analyzing information: Learners classify, organize, and display data and information they collect in ways that help them analyze and interpret their environmental investigations.



Standard Source	Possible Connections to Other Standard(s) or Practice(s)
PA Core Standards: ELA	<p>CC.1.2.5.G: Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.</p> <p>CC.1.4.5.S: Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade level reading standards for literature and informational texts.</p> <p>CC.1.4.5.V: Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.</p> <p>CC.1.4.5.W: Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.</p> <p>CC.1.5.5.A: Engage effectively in a range of collaborative discussions on grade-level topics and texts, building on others' ideas and expressing their own clearly.</p>
PA Core Standards and Practices: Math	<p>MP.2: Reason abstractly and quantitatively.</p> <p>MP.5: Use appropriate tools strategically.</p> <p>CC.2.4.5.A.1: Solve problems using conversions within a given measurement system.</p> <p>CC.2.4.5.A.6: Apply concepts of volume to solve problems and relate volume to multiplication and to addition.</p>
PA Standards: Social Studies	N/A
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-2I: Describe the properties of different materials.