



**Grade 5**

**3.1.5.A Life Science: From Molecules to Organisms:** Structures and Processes

**Students who demonstrate understanding can** *support an argument that plants get the materials they need for growth chiefly from air and water.*

**Clarifying Statement:** Emphasis is on the idea that plant matter comes mostly from air and water, not from the soil

**Assessment Boundary:** N/A

Science and Engineering Practices (SEP)	Disciplinary Core Ideas (DCI)	Crosscutting Concepts (CCC)
<p><b>Engaging in Argument From Evidence</b> 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).</p> <ul style="list-style-type: none"> <li>Support an argument with evidence, data, or a model.</li> </ul>	<p><b>LS1.C: Organization for Matter and Energy Flow in Organisms</b></p> <ul style="list-style-type: none"> <li>Plants acquire their material for growth chiefly from air and water.</li> </ul>	<p><b>Energy and Matter</b></p> <ul style="list-style-type: none"> <li>Matter is transported into, out of, and within systems.</li> </ul>

**Pennsylvania Context:** Examples of Pennsylvania context include Pennsylvania’s native plant species.

**PA Career Ready Skills:** Respond to others given a sense of the others' point of view.

**Connections to Other Standards Content and Practices**

Standard Source	Possible Connections to Other Standard(s) or Practice(s)
Agriculture (AFNR)	CS.06.01.01.a: Research and explain the foundational cycles in AFNR (e.g., water cycle, nutrient cycle, carbon cycle, etc.).
Science, Environmental Literacy and Sustainability (NAEE)	5-8 Strand 2.1.B. Earth’s living systems: Learners describe how living things, including humans, are dependent on their environment and are adapted to live in particular ecosystems under particular environmental conditions. They describe major interactions among organisms and populations of organisms and explain the importance of biodiversity to ecosystem health. They describe how humans affect and are affected by the biosphere.
PA Core Standards: ELA	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.
PA Core Standards and Practices: Math	MP.2: Reason abstractly and quantitatively. MP.5: Use appropriate tools strategically. CC.2.4.5.A.2: Represent and interpret data using appropriate scale.
PA Standards: Social Studies	6.1.5: Explain how limited resources and unlimited wants cause scarcity.



Standard Source	Possible Connections to Other Standard(s) or Practice(s)
<b>Educational Technology (ISTE)</b>	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.
<b>Technology and Engineering (ITEEA)</b>	STEL-2F: Describe how a subsystem is a system that operates as part of another, larger system.