

Educational Resources from *Phenomenon Science Education*  
Student Proficiency Goals for **NGSS 5-LS1-1**



**Information about 5-LS1-1**

**NGSS Performance Expectation 5-LS1-1.**

Support an argument that plants get the materials they need for growth chiefly from air and water.

**Clarification Statement.**

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

**Assessment Limits.**

*No specific assessment limits are listed for this Performance Expectation.*

**Science and Engineering Practice (Engaging in Argument from Evidence)**

- Support an argument with evidence, data, or a model.

**Disciplinary Core Idea (LS1.C: Organization for Matter and Energy Flow in Organisms)**

- Plants acquire their material for growth chiefly from air and water.

**Crosscutting Concept (Energy and Matter)**

- Matter is transported into, out of, and within systems.

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**Student Proficiency Goals**

**SEP (Engaging in Argument from Evidence):**

- Students describe evidence, data, or modeling results showing that plants grow in the presence of water and air and that plants do not grow in the absence of water and/or air.
- Students describe evidence, data, or modeling results showing that plants do not depend on soil to get materials needed for growth.
- Students determine if and how well evidence, data, or a model supports a claim, including the idea that plants get materials they need for growth from air and water.
- Students construct a chain of reasoning, supported by evidence, data, or modeling results, that describes where materials needed for plant growth do and do not come from.

**DCI (LS1.C Organization for Matter and Energy Flow in Organisms):**

- Students infer that particles of matter are taken up by plants through the air and water.
- Students know that plants get materials needed for growth mostly from air and water.

**CCC (Energy and Matter):**

- Students consider ways that matter can be acquired by plants (inputs into the system).
- Students use the movement of matter into and out of the system to make better sense of phenomena related to plant growth in the presence and absence of air and water.