



**Plant Traits: Learning from Herbarium Collections**  
**3<sup>rd</sup> Grade**

**Overview**

Students will investigate the trait of leaf size in two species of oaks found in New Mexico. They will use their understanding of humidity and stomata on leaves to explain why a species from an area with lower humidity has smaller leaves than a species from an area with higher humidity. Throughout the lesson, they will role-play as botanists working with specimens from an herbarium, learning the importance of natural history collections.

**Phenomenon**

Leaf size varies in oak species found in two New Mexico towns where the average humidity is different.

**Next Generation Science Standard**

3-LS3-2 Use evidence to support the explanation that traits can be influenced by the environment.

Asombro lessons are aligned with the three-dimensional learning model of the Next Generation Science Standards.

<b>Science &amp; Engineering Practices</b>	<b>Disciplinary Core Ideas</b>	<b>Crosscutting Concepts</b>
Constructing explanations and designing solutions  Analyzing and interpreting data	LS3.B: Variation of Traits	Cause and Effect  Structure and Function  Patterns

**Common Core State Standards**

**Math**

3.D.1.1 Collect and organize data using observations, measurements, surveys, or experiments.

**English Language Arts**

SL.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.

SL.3 Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.