

Instructional Scenario

Identifying an Unknown Plant Species



Course/Duty Area: Introduction to Plant Systems/Introducing Botany

Scenario:

You have been hired as a plant scientist at a botanical research lab that has recently received an unknown plant species. Your mission is to study, classify, and explain a mystery plant species from seed to maturity, after which you will present your findings.

Big Question:

How will you be able to identify the unknown plant species?

Focused Questions:

- What are the plant's parts and what are the growth stages?
- How are these plants classified and named using taxonomy?

Student Project or Outcome:

Groups of students will be given a seed packet of beans, sunflowers or peas, a photo of a mature plant and a lab assignment card. Students will grow their plants in the school greenhouse and keep records and pictures of them, demonstrating that they understand how plants function and are classified.

Project-Based Assessment:

Students will present information about their given plant to the teachers and class. These presentations must include plant characteristics, labeled parts and functions, growth stages and timelines, life cycle classification, and taxonomy breakdown.

Teacher Resources:

- Seeds of common plants that germinate and grow quickly such as beans, sunflowers, or peas
- A school greenhouse with planting trays, soil, and other supplies needed for plant germination
- Access to tools such as [TheAET.com](https://www.theaet.com/) where students can keep records and share those records with teachers

Scenario submitted by Liz Borst, Sherando High School, Frederick County Public Schools