

**Lesson:** Let the Sun Shine

**Common Core Standards:**

NGSS.4.LS1.1

Next Generation Science Standards

Grades 4-4

Standard: Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. [Clarification Statement: Examples of structures could include thorns, stems, roots, colored petals, heart, stomach, lung, brain, and skin.] [Assessment Boundary: Assessment is limited to macroscopic structures within plant and animal systems.]

**Time:** 3 weeks

**Objective:**

- Learn about the importance of the sun for plants
- Introduction to photosynthesis

**Resources:**

- Two pots
- Two starter lima bean plants (or any other type of plant you would like)
- Soil
- Sunlight
- Dark space
- Student notebook
- Color pencils

\*throughout the project it is important to keep the plants watered at all times so the students can fully see the differences between the two plants.

**Activity:**

Week 1 - Set up the experiment

With the class, set up the experiment by taking out the pots, filling them up halfway with soil, then putting the starter plants into the pots. Fill the rest of the pot with soil.

Water the two plants, making sure that the soil is moist but not wet.

Place one pot at a location where it will get lots of sun and place the other pot in a very dark location like a closet (or put a cover over it so it is completely dark).

Tell the students to look at the plants and write in their notebooks what they see and what they

expect to happen to the two different plants.

Week 2 - Learn the importance of the sun to plants and begin the process of learning about photosynthesis

First have the students look at the two plants (one in the light and one in the dark) and have them draw and write in their notebooks about their observations.

Once done, show the ppt “Why is the Sun So Important to Plants” and begin the process of teaching the students about photosynthesis.

Week 3 - Wrap up and observe the end results of the experiment

Have the students look at the two plants to draw and write down their final observations. (The plant that was in the sun should be healthy looking and green. The plant that was in the dark should be smaller, wilted, and maybe even yellow or brown).

Ask the students what have they learned.

\*answers should have something to do with how important sunlight is to plants growth, what photosynthesis is and how it works, etc.