

Leave it to the Sun

Name: _____

Date: _____

Period: _____ Page: _____

Objective: _____

Research Question: How does covering a leaf with foil affect the color and size of the leaf?

Hypothesis: Answer the following question: what do you think will happen to the leaves when they are covered with aluminum foil?

Procedure:

1. Cut 8 pieces of paper 10-12 cm strips. Use a pen or marker to label the strips 1U, 2U, 3U, 4U, 1C, 2C, 3C, 4C. (U = uncovered and C = covered)
2. Select 4 leaves on the same side of the plant. Loosely attach a paper strips with 1-4 C to each leaf. Select 4 more leaves on the same side of the plant and attach the paper strips with 1-4U to each leaf.
3. In your data table, sketch and label a diagram of both sides of all 8 leaves. Record the color. Measure the width of each leaf at the widest point. Record the measurement.
4. Cut 4 pieces of aluminum foil big enough to cover the leaves labeled "C" on both sides. Wrap the foil gently around the leaf to block out ALL of the sunlight.
5. After 3 days and after 7 days, make observations as you did in step 3. Remove the foil and then gently replace it when making observations.

What our experiment will look like: Draw what your lab set up looks like. Make sure to label where your leaves are and if they are covered or uncovered.

Day 1 Data:

	1 Uncover	2 Uncover	3 Uncover	4 Uncover	1 Cover	2 Cover	3 Cover	4 Cover
Leaf Obs. & Starting Color								
Leaf Starting Size								

Day 3 Data:

	1 Uncover	2 Uncover	3 Uncover	4 Uncover	1 Cover	2 Cover	3 Cover	4 Cover
Leaf Obs. & Color								
Leaf Size after 3 days								

Day 5 Data:

	1 Uncover	2 Uncover	3 Uncover	4 Uncover	1 Cover	2 Cover	3 Cover	4 Cover
Leaf Obs. & Color								
Leaf Size after 7 days								

Conclusion: Answer the following questions in a complete sentence.

1. What observed changes in leaves' color and size occurred to the uncovered leaves of the geranium?
2. What observed changes in the leaves' color and size occurred to the covered leaves of the geranium?
3. What caused the differences in size between the covered and uncovered leaves?
4. Which leaves, uncovered or covered, were able to go through the process of photosynthesis? Which leaves were not able to go through the process of photosynthesis?
5. How does photosynthesis affect the color and size of the leaves in this experiment?

