



K-2 Life Science

Southern Nevada Regional Professional Development Program

Do plants need sunlight?

INTRODUCTION

Plants need sunlight or some form of electric light in order to produce chlorophyll. If plants do not receive sunlight, they will be unable to produce chlorophyll and they will lose their green color and eventually die.

WHERE'S THE SCIENCE?

Students will learn that plants need certain resources for energy and growth (L2C1).

MATERIALS

Student materials

- One healthy plant with green leaves per group
- Hand lens
- Science notebook
- One sheet of black construction paper per group
- 4-6 paperclips per group

Teacher materials

- Pitcher of Water

PROCEDURES

Lesson One

1. Ask the students the following questions and chart responses:
 - a. Do plants need sunlight?
 - b. What happens if plants do not receive sunlight?
2. Give each group of students a healthy green plant.
3. Pass out science notebooks and hand lenses and ask the students to observe their plants and record observations and a sketch of their plant. Make sure to encourage them to select two large healthy leaves and to complete a detailed up close sketch of one of the leaves. They should also mark the selected leaves with paperclips. Students should date their entry and label this section, “Do plants need light?”
4. Next instruct the students to cut out four square or oval pieces of black construction paper and cover up the two selected leaves by placing one piece of construction paper on the top of the leaf and one on the bottom of the leaf. Secure the papers onto the leaf with paperclips.
5. Have students check their leaves to make sure that the entire leaf is covered and won't be able to get light.
6. Ask the students to return to their science notebooks and add another sketch detailing the leaves that they covered and record any observations or thoughts.
7. Call the students back to the carpet area with their science notebooks and discuss what they think will happen. Chart thoughts on the class chart.

Lesson Two

1. After two days call the students back to the carpet area and review what they did to set up the plant investigation. Discuss what they thought was going to happen.
2. Tell them today they will remove the paper clips and pieces of black construction paper, and observe what has happened.
3. Pass out plants and ask the students to carefully remove the paper clips and paper and observe what happened to the leaves.
4. As students are observing move from group to group and pass out their science notebooks. Instruct students to sketch their observations and thoughts in their science notebooks.
5. Have the students replace the construction paper on the leaves securing it again with the paperclips.
6. Close the lesson by calling the students to the carpet area and discussing their observations. Chart new learning on the class chart.

Lesson Three

1. After two more days, repeat lesson two, steps one through four.
2. Call the students to the carpet area and discuss what has happened. Pose the following questions: What do the leaves look like? What color are they? What do you think happened?
3. Tell the students that they are going to leave the leaves uncovered now and ask them what they think will happen next. Ask them to record their thoughts in their science notebooks. Discuss their thoughts and ideas whole group.

Lesson Four

1. After a few days, call the students to the carpet area and pass out their science notebooks. Ask them to review what they have learned and investigated so far.
2. Pass out the plants and have the students observe what has happened. Instruct the students to record their observations in their science notebook.
3. Close the lesson by calling the students back to the carpet area and discuss what has happened to the plants.

Nevada State Standards

L2C1 Students know plants and animals need certain resources for energy and growth. E/S

N2A1 Students know how to make observations and give descriptions using words, numbers and drawings. E/S

N2A2 Students know tools can be used safely to gather data and extend the senses. I/L

N2B2 Students know that, in science it is helpful to work in a team and share findings with others. E/L

Safety Reminder: N/A