

Everything is Coming Up Mosses!!!

OBJECTIVES

Students will be able:

- to list the characteristics of a non-vascular plant
- to differentiate mosses and vascular plants
- to differentiate mosses, lichen, and moss-like organisms
- to list the growth requirements for mosses

MATERIALS

- Digital Camera
- Science Journal (notebook to record information)
- Think sheet (one-half sheet of paper to list ideas)
- Each student needs:
 1. one clear cup
 2. one-fourth cup soil
 3. six-inch square of aluminum foil

PROCEDURE

1. Students will tour the area around the school. They will document the location, size, and description of moss they see in their science journal.
2. The teacher will take pictures of the mosses the students find with a digital camera.
3. Students will list the growth requirements they feel mosses must have to successfully live. Their ideas will be listed on "think sheet".
4. Students will share their list of moss growth requirements with a partner.
5. Partners will work with another set of partners to create a poster listing the growth requirements of moss.
6. The posters will be displayed in the classroom.
7. Each group will have an opportunity to read all of the posters.
8. Each group will share with the class one moss growth requirement. They must have an observed justification for each requirement.
9. The teacher will display pictures of the mosses the class found while on the tour of the school. Students will list the requirements necessary for moss to live in each of the locations.
10. After the class discussion the groups will have an opportunity to make changes in their poster.
11. Each student will write an informational essay on moss habitat; they should include a chart of the data collected while on the tour.
12. Each student will place one-fourth cup of soil in a clear cup. They should mist the soil with water and place one teaspoon of the moss and buttermilk mixture on the soil. Cover the cup with aluminum foil.

Preparation of moss and buttermilk mixture for the: "Moss Garden"

1. Remove as much dirt as possible from the moss.
2. Tear the moss into very small pieces.

3. Place moss into large non-glass bowl.
4. Add buttermilk to the moss until the mixture stirs easily.
5. Stir until a smooth consistency.
6. Add about one teaspoon to each student cup.
7. Cover with aluminum foil.

Observe weekly; mist with water as needed.

In their lab journal, each student will write a description of their "moss garden" observations for Day 1. Be sure to include the date. Weekly make observations and entries. Mist the cup as needed.

CLOSURE

Each student will design and make a chart suitable to use as a teaching aid for fourth grade students. The chart should depict the characteristics of vascular and non-vascular plants. The chart should include information concerning mosses and how to identify them.