

Plant Detectives

Summary

Exploration of the school grounds and thought images are used to demonstrate the many uses of plants.

Time Frame

1 class periods of 30 minutes each

Group Size

Small Groups

Materials

For each group of 2-3 students:

3x5 cards

Pencils or crayons

Paper lunch bag

Background for Teachers

People benefit from plants in a variety of ways. We obtain oxygen from plant respiration. All our food comes directly or indirectly from plants. Clothing, lumber, paper, and medicine are other plant products. In addition, plants surround us with beauty.

Instructional Procedures

1. Tell students, "We are going to be plant detectives. We will look for and think of things that come from plants." Divide students into teams. Give each team a supply of index cards (the number of cards depends on the amount of time you give them to search) and a paper bag with their team letter on it.
2. Take the plant detectives on a hunt around the building and schoolyard. Items may be things they actually see in the area, or from their own experiences. (Remember that some items in schools appear to be wood but are plastic.) Allow 10-15 minutes for students to find and record items made from plants. Recordings may be written or illustrated. Encourage finding unusual as well as the more obvious items.
3. After the hunt, return to class, and have each team display their collection of recorded or actual items on their desks.
4. Categorize the class findings and sort all like responses together in one place (such as building materials, clothes, food, decorative items, paper, etc.). Discuss categories of items not collected (medicine, dyes, etc.). Use the cards to make a bulletin board titled "We Need Plants". Possible categories for the board could be building, clothing, food, things we use in class, things we use other places, or beauty.

Strategies for Diverse Learners

As an introductory activity, identify items within the classroom that come from plants. LEP students benefit from modeling prior to independent research. It may be helpful to have students work with a partner as they investigate the school and schoolyard. After the schoolyard investigation students can do a similar plant detective work around their own home or neighborhood and compare results with classmates.

Extensions

Students could build a "creature" from plants as a homework assignment and display it in class. Very effective dyes can be made from plants and used to dye eggs, T-shirts, or small squares of cloth. Boil the plant material ahead of time. One pot of dye should be enough for one class. Strain plant material from dye. If using raw eggs, boil eggs in dye for 10 minutes. The easiest plants to use are white onion skins, red onion skins, or red cabbage leaves. Other foods are also easy to use but are sometimes harder to obtain.

Make brightly colored leaf rubbings.

Write a thank you letter to a plant.

Assessment Plan

Evaluate each student's participation in the activity. Have the students complete the following assignment on a sheet of lined paper:

Each student chooses three categories from the list of plant uses. They then write an example for this category from the items they saw or thought of on their plant detective hunt. Check for understanding and assignment completion.

Bibliography

Supporting Literature:

Kohl, M. (1993). Science Arts: Discovering Science Through Art Experiences. Bright Ring Publishing. ISBN 0-935607-04-8. Primarily Plants, Project AIMS K-3.

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