

Environmental Studies Program
Science Enrichment and Extensions



PLANTS

1. Adopt a Tree

Select and identify a tree in your backyard or neighborhood to study.

- a. Draw your tree and label all its parts on your drawing. (Roots, branches, leaves, flowers)
- b. Make a rubbing of your tree's bark.
- c. Make a leaf print (if your tree has leaves) or draw a picture of what your tree leaves look like.
- d. Study your tree. What living things in nature are attracted to your tree? (Birds, insects, people) Record your observations over time.
- e. Make a picture chart to show what your tree can be used for by wildlife and man.
- f. What can you do to keep your tree healthy?
- g. Answer the question: Are trees important to our planet? Why?

2. Plant Power

Read all about growing and caring for plants.

- a. Starting with a few seeds, grow and take care of your own plant properly.
- b. Grow the same plant two or more times but leaving out

one of the important caring steps.

- c. Record your results.
- d. Describe which plant was the healthiest and why.
- e. Display and label your plants.
- f. Answer the questions: What do plants need to grow and stay healthy? How do plants help our world?

3. Don't Be A Litterbug!

Choose a small area in your neighborhood, such as a park, empty lot, or your own backyard to clean up.

- a. Take before and after pictures.
- b. Record what you found and draw a map to show where the trash was located.
- c. Tell where you disposed of the litter/garbage.
- d. Answer the questions: Is this litter harmful to the environment? Can it be harmful to plants, animals or man?

4. Mini-Habitat

Take an outside area of your choice and make it a better place for plants and animals.

- a. Prepare the earth and plant flowers, trees or shrubs.
- b. Record what you did.
- c. Take before and after pictures or draw maps to show the changes you have made.

- d. Tell who and what benefits from your project.

5. Environmental Model

Choose a natural environment to study. (Forest, desert, pond, jungle, etc.)

- a. Find in books what kinds of plants and animals live in this environment.
- b. Make a model (Clay, shoebox, diorama, sculpture, cardboard, etc.) of your environment, including plants, animals, and non-living features, such as rocks, pond and land formations.
- c. Tell how your plants and animals depend on one another for survival. Make a food chain to show their relationship. Example: dogwood -->deer -->wolf (arrows indicate "eaten by")

6. World in a Bottle

Make your own terrarium.

- a. You will need a glass container with a wide neck, peat potting soil, small pebbles, and selected ferns and mosses.
- b. Place pebbles and charcoal on bottom. Then add deep layer of potting soil. Press down with a spoon. Dig small hole for each plant and cover roots with soil firmly. Pour a cupful of water into bottle. Then spray with water occasionally to keep soil moist.
- c. Leave bottle open until there are no drops of water left on inside of the glass. Then put top on.
- d. Pruning: Keep an eye on condition of your plants. Snip

off dead leaves or pieces of fern with a small pair of scissors.

- e. Watch and record how the mosses and ferns grow/change.
- f. Answer the questions: How is the terrarium you made similar to the environment you live in? How is it different?

7. A Fair Trade

Investigate and learn how plants help animals.

- a. Set up an aquarium as follows: Rinse gravel under water, and spread it in the bottom of the aquarium. Then, so as not to disturb the gravel layer, line the aquarium with a sheet of heavy plastic, fill the aquarium with fresh cold water, and slip out the plastic liner. Arrange 4 or 5 freshwater plants (available at a pet store) in the gravel.
- b. Let the water stand in the aquarium for at least 24 hours; then add the goldfish.
- c. Observe the interaction between the plants and the goldfish for a period of time.
- d. Answer the following questions: How does the goldfish breathe? Where does the air come from? How does the air get into the water? How does the goldfish help the plants?

8. "Do Your Own Thing"

Do you have a question that you would like to investigate and solve? Design your own project, showing the importance of plants to animals and/or people.