



not, what types of animals will you find?

- Under a big rock you find an ant colony. What are the ants doing? (Most are probably carrying aphids or other insects for food.) What does it tell you about ants' needs for food and shelter?
- If you sit quietly for a long time in a field and watch for wildlife, you are likely to see quite a few birds and small mammals such as woodchucks and rabbits. Why don't you also see a lot of large birds and mammals like foxes or coyotes? What does this tell you about the relative numbers of small creatures and larger predators?
- Here is a boulder with a crack in it. Lichens are growing in the crack. What will the boulder look like in 50 years? Why? What may have happened?
- Here is a small hole in the ground. What is it? (Probably a burrow.) What kind of animal lives there? (If the hole is small and there is another hole nearby with a mound of dirt alongside, it's probably a woodchuck. If the hole is larger, it may be a red fox's home. If you're on the Great Plains and the burrow looks like a miniature volcano, it's probably a prairie dog.)

The exploration trek will also give older Scouts who have already earned the Environmental Science merit badge a chance to work on nature-related projects for other merit badges. Find out their interests in advance so that you can bring a supply of binoculars, insect-collecting nets, geologist's tools, etc., as needed.

The patrol leaders' council will want to plan other activities in addition to the exploration. For some ideas, see the Nature program feature.

Ecology Projects

Patrols may want to conduct their own experiments in ecology. Here are some ideas.

HOW DO PLANTS APPEAR ON BARE SOIL? Fill a box or wide-mouthed jar with potting soil from a discount store or nursery. Put it outdoors on a roof, fire escape, or window sill. Keep the soil moist. Within a few weeks, small plants will be growing in the soil (which originally contained no seeds). Where did the seeds come from?

Many plant seeds are airborne and are carried for miles by the wind.

TESTING AIR POLLUTION. If you live in a city, set out a simple pollution testing device. Use the adhesive side of a bumper sticker or coat a piece of paper with petroleum jelly. Place it on a tree, rooftop, or fire escape, sticky side up. Over the next two or three weeks, check the tester with a magnifying glass to see how many pollutant particles there are.

TESTING WATER POLLUTION. If you live in a rural area and there is a lake or stream nearby, take a small sample of the water in a large jar and let it stand for a couple of weeks. As the water evaporates, silt and other solid matter will settle to the bottom, showing whether or not the body of water is gradually silting.

WHAT DO PLANTS NEED? Fill three paper cups with potting soil. Plant three or four bean seeds about a 1/4-inch deep in each pot. Moisten the soil.

Place one cup where it will get direct sunlight each day and keep the soil moist but not soggy. Place the second cup in direct sunlight, but give it no further water. Cut the top and bottom from a milk carton and put it over the third cup. Keep the soil moist.

After 2 or 3 weeks, examine the three plants. Which one is growing best? Which one is worst? Why?