

E.T. - A LOCAL WAY OF LEARNINIG

Title: EARTHWORMS--NATURE'S PLOWS

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Grade Level: 3-6

Concepts: 2.Ecosystems
6.Natural Resources

Disciplines: 1.Social Studies
2.Science
3.Language Arts

Objective:

Student shall construct an earthworm habitat and compare it after a week with a control set up to show the mixing of soil.

Rationale:

Earthworms literally eat their way through soil and in this way mix or plow the soil. They also add to the soil in their castings, which contain material from their gut which is of nutritive value to soil. The tunnels they form serve to aireate the soil and to loosen it so that water can more readily penetrate. They proliferate and add to the quality of garden soil as they recycle the bits of humus on which they feed, breaking it down to minerals used by plants.

Materials Needed:

Two quart jars
Earthworms
Paper to cover one jar
Half a dozen different colors of soil..peat moss, gut sand, garden dirt, red clay, white marl, beach sand.

Directions/Activity:

Use one quart jar to make a control. Carefully layer each of the soils in the jar so that the colors contrast at each interface. Cover it and set it aside. Now layer the soils into the other quart jar in the same order in which you put them in the first jar. Add water and about a dozen earthworms. Cover the jar with paper to make it dark inside. The earthworms require damp soil and darkness. The jar doesn't need a lid (no one will crawl out) but it does need air. Maintain it for a week making sure the soil is damp but not flooded. Remove the paper from the jar and examine the layers of soil. Compare them with the control jar. Discuss the experimental study project.

Have students write a paragraph on "The Importance of the Earthworm to Our Environment"

For extended study/observation put the paper back around the jar and wait for several more weeks, examining your plough men at intervals.