

Title: Soil and Organic Farming

Summary: All plants need four things in order to grow. Different soil components are good for plants due to their moisture, air, and nutrient up-take properties. People can mix various materials together to make soil that is richer for plants, especially for seedlings.

Objectives (what students will be able to do or learn): Students will learn that all plants need oxygen, nutrients, sun light, and water wherever they grow. They will learn that soil has different properties and qualities depending on where it comes from. They will learn which soil components are good for young plants. They will learn that normal field or yard soil may have weed seeds and undesirable insects that are harmful to food plants. They will mix their own soil and plant seeds in pots or flats to help the farmer and beautify the children's garden.

Area of Activity: In green house, or in Children's Garden, depending on weather.

Materials Provided: wheelbarrow for collecting soil samples, shovels, large bowls for every 3-4 students, magnifying boxes, cups for measuring soil components, topsoil, peat moss, perlite, water, seeds, flats or pots for students.

Introduction: Students will be introduced to the benefits of organic farming through a brief tour of the farm where we will collect soil samples ending at our area of activity. We will introduce how organic farming aims to keep the soil healthy and nutrient rich through different practices.

Center Activity: Each student will look at a soil sample with a magnifying box, and discuss what they see in the soil. We will talk about the various nutrients needed for plants to grow and how those nutrients get into the soil. Students will compare the three given ingredients for the planting soil, comparing texture, color, and water holding or water draining attributes. Groups of students will mix soil in their large bowl -- 1 part each of the topsoil, peat moss and perlite. One student will add water to the bowl until the mixture is moistened. Then they will divide the soil into pots or flats to plant seeds (radish, lettuce, or spinach) for the children's garden. Left-over soil will be used to fill greenhouse flats for planting seeds of food that will be grown on the farm.

Conclusion: Children will create their own mixture of soil and understand what nutrients and other ingredients go into making soil rich and fertile for plants to grow. Students will learn how to plant seeds and will help the farm by planting vegetables to be harvested.