

Soil Health CONSERVATION KIT



Kankakee County
Soil and Water
Conservation District

Soil is the “skin of the earth”, and serves many vital roles in the environment. Soil provides a growing medium for plants, and is a major source of nutrients such as nitrogen, phosphorus, and potassium needed to support healthy plant growth and function. Soil is at the foundation of our nation’s agricultural industry. Without soil, we wouldn’t have feed for animals, fiber for construction, food, fuel, or many of the antibiotics used to fight diseases.

Soil provides a habitat for billions of organisms such as bacteria, protists, fungi, and critters like insects, worms, spiders, and other invertebrates. Explore the tiny world beneath your feet with the Soil Health Conservation Kit!

EQUIPMENT INCLUDED:

1. A basic soil kit to test for nitrogen, phosphorous, potassium, and pH.
2. A soil texture kit to determine the percentage of sand, silt, and clay in soil samples.
3. Student macro lenses to view components of soil and soil biota.
4. Petri dishes, tweezers, and plastic transfer pipettes for viewing soil and soil biota.
5. Soil sampling tools to gather soil core samples for investigation.
6. Soil thermometer.
7. Clipboards for on-the-go data collection.
8. Educational resource binder and data collection sheets.
9. Plastic storage containers with lids.

WITH THE SOIL HEALTH CONSERVATION KIT, YOUR STUDENTS WILL BE ABLE TO:

Measure the physical properties of soil: temperature, texture, composition, soil type

Analyze soil chemistry: pH, nutrient analysis (N, P, & K)

Explore soil biology and ecology: microbial life, invertebrates, fungi, food webs, nutrient cycles, and more!

Investigate symbiotic relationships: mycorrhizal fungi, nitrogen-fixing bacteria

Discuss soil conservation: erosion, nutrient runoff, conservation in agriculture

Learn about careers in agriculture and conservation!

