

Welcome/ Staff/Volunteer Names

Introduction: **Today's Topic-Soil Question: How can we find out what's living in the soil?**

Ice Breaker/ Game: **Soil Organism Mix Up-** Students describe soil organisms to each other and guess what is on the card taped on their back.

Background/ Exploration: Ask the students how soil forms.
Briefly review soil formation & the rock cycle.
Soil forms from the erosion of minerals and rock with addition of organic matter.
Many living organisms, from large (woodchucks) to small (shrews) to microscopic live in soil.
Soil is its own ecosystem-it teems with life!
Microbes live off of the organic matter in soil and help recycle/decompose it.

Activity: **Soil search-**encourage students to look at and compare various soil samples.

Activity: **Berlese Funnel-**shake out the jar under the funnel and examine the creatures.

Briefly discuss the importance of soil conservation-pictures, lines on the land...

OUTDOOR EXPLORATION: Hike to several areas and take soil samples. Compare burned/unburned portions of a prairie if possible.

Activity: **Log Scavenger Hunt-**Help students overturn several fallen logs and explore and compare the flora and fauna they find. Explain producers, consumers, decomposers, & scavengers. Have the students categorize the creatures and construct a food chain.

Game: **Food Web**
Look for examples of soil erosion.

Closing: Discuss the abundant life within soil and the importance of good soil conservation.

Send Off: Goodbye!

Take Home: Parent Outline

Next Month-Cultures of the Creek

At home activities

Vocabulary

Soil, inorganic, organic, microbe, decompose, producer, consumer, decomposer, scavenger

Background

www.iadnr.com Department of Natural Resources. Information on environmental quality & issues.

www.nrcs.usda.gov Natural Resource Conservation Service. Soil conservation information.

USDA-NRCS Publications: Challenging Careers in the NRCS, Backyard Conservation

Iowa's Biological Communities. 1993. Iowa Association of Naturalists Booklet Series. ISU Press, Ames, IA. *Iowa Biological Communities* (IAN-201) P. 9 soil section illustration

Iowa Environmental Issues Series. 1998. Iowa Association of Naturalists Booklet Series. ISU Press, Ames, IA. (IAN-101—107)

Iowa Water Pollution (IAN-103) *Iowa Agricultural Practices and the Environment* (IAN-1041)

Iowa Physical Environment Series. 1999. Iowa Association of Naturalists Booklet Series. ISU Press, Ames, IA. *Iowa Soils* (IAN-703) <http://www.extension.iastate.edu/pubs/wi>.

Lines on the Land. 1991. Soil Conservation Service-USDA, Des Moines, IA. Video and guide