

## Soil ecology lessons for K–2 students.

These lessons are available at [www.bioed.org/ecos/inquiries.aspx](http://www.bioed.org/ecos/inquiries.aspx).

### **A Tour of Soils**

This simple and fun outdoor activity is a perfect introduction to soils and is especially good to use before The Radish Party investigation. Children go on a scavenger hunt to find and describe five different soils from around the schoolyard. With only the help of a shovel, magnifying glasses, and their senses, the students explore the diversity of soil types and organic matter content. Teachers and students alike will be surprised at the diversity of soil characters in even the most homogenous schoolyard.

### **Composting 101: It's the Microbes**

In this long-term experiment, students actually create soil organic matter from fallen leaves they collect in the fall. The influence of soil microbes on decomposition takes center stage as students test if "living soil" speeds up decomposition compared to "dead soil." Students can even use some of the compost they make in this experiment in The Radish Party investigation for an integration of concepts.

### **Soil Erosion: Causes and Cures**

Here students learn how soil organic matter and litter help prevent soil erosion. This is an advanced experiment that takes a little setup and time but is very informative, dramatic, and relevant to students' daily lives. Students help the teacher create an erosion machine, and then the students test how different soil types with varying organic matter or the presence or absence of a litter layer respond to the erosive force of water. Students can see how organic matter and litter mulch can greatly reduce soil loss from erosion. They are encouraged to think of ways to prevent erosion in their gardens at home.