

# **Properties of Soil Lessons**

# **Websites**

## The Dirt on Soil: What's Really Going on Under the Ground

Each shovel of soil holds more living things than all the human beings ever born. Lots of species are still waiting for scientists to identify and name them. This is a world where fungi lay traps for thread-like worms and bacteria dine on toxic chemicals. The smaller the creature, the stranger are its habits. Dig into this underground universe and meet its tiny but helpful residents. Encourage students to click on the "Soil Safari" to micro-size themselves for a journey underground.

(http://school.discoveryeducation.com/schooladventures/soil/)

### S.K. Worm

This kid-friendly website sponsored by the United States Department of Agriculture encourages students to learn more about soil by following the Scientific Knowledge worm through a series of questions about soil.

(http://www.nrcs.usda.gov/feature/education/squirm/skworm.html)

### The Great Planet Escape: Soiled Again

This interactive website challenges students to act as detectives and learn about soil during the process. To solve a soil case, they must find out what soil is, why it is important, and in what kinds of soil plants grow. Happy digging!

(http://urbanext.illinois.edu/gpe/case2/index.html)

#### **Careful! Earthworms Underfoot**

This website offers background information, at the student's level, of Dr. Dennis Linden interest in earthworms and his discovery of some less well-known facts about these helpful creatures, such as how well they adapt to different soils and temperatures. (http://www.ars.usda.gov/is/kids/soil/story2/goodworm.htm)

### **Underground Adventure**

There's more to soil than meets the eye. The world of soil is a rich habitat for many amazing creatures. What do you think life would be like if you lived underground? You've come to the right place to find out! In this interactive website, students can find out what it feels like to be a half inch tall, take a virtual tour underground, or enjoy some different underground activities. (http://archive.fieldmuseum.org/undergroundadventure/)



### **Soil Science Education**

This terrific website on soils includes great information on soil, soil songs, a soil "activity of the month", and much, much more! (http://soil.gsfc.nasa.gov/)

# **Types of Soil**

This site tells about the formation and composition of soil, types of soil, soil profiles, and conservation of soil. Included are several experiments and activities designed to help you and your students discover and learn about soil characteristics. (http://library.thinkquest.org/J003195F/newpage4.htm)

#### **Dirtland**

Learn about the microbes living in the soil, on rocks, inside roots, buried under miles of Earth, in compost piles and toxic waste, and all over the Earth's surface. (http://commtechlab.msu.edu/sites/dlc-me/zoo/zdmain.html)

### **Could You Live Here?**

For students seeking a more challenging soil activity, this website offers an investigation about the heat absorption and transfer properties of various soils to make an inference about Martian soil.

(http://www-k12.atmos.washington.edu/k12/modules/soils/index.html)



# **Properties of Soil Lessons**

# **Books**

# Dirt (Jump into Science series)

By Steve Tomecek; illustrated by Nancy Woodman. (2007, National Geographic Children's Books)

A garden mole leads the reader through this beginning guide to learn about soil, who lives in soil, and how earth helps things grow.

### Dirt: The Scoop on Soil

Natalie M. Rosinsky; illustrated by Sheree Boyd. (2003, Picture Window Books) Illustrated with simple pictures, this book describes what soil is made of and briefly explains that decomposers put "more food back into the humus."

## An Earthworm's Life (Nature Upclose)

By John Himmelman. (2001, Children's Press)

This book describes, in simple text and exceptional illustrations, the daily activities and life cycle of the earthworm.

### A Handful of Dirt

By Raymond Bial. (2000, Walker & Company)

Illustrated with the author's eye-opening photographs, this book is an excellent resource for the teacher to gain basic facts about soil. The author includes basic instructions for setting up a compost heap.

### Life in a Bucket of Soil

By Alvin and Virginia Silverstein. (2000, Dover)

This fascinating book introduces children to industrious ants, tunnel-building earthworms, snails and slugs, beetles, and many other creatures inhabiting and affecting soil.



## More Mudpies to Magnets: Science for Young Children.

By Robert Williams, Robert Rockwell, and Elizabeth Sherwood; illustrated by Laurel Sweetman (1990, Gryphon House)

For ages three and up, see the activity titled "Digging in the Dirt: Earth Explorations."

# The Piggy in the Puddle (Reading Rainbow Books)

By Charlotte Pomerantz; illustrated by James Marshall. (1989, Aladdin) With the inspiration of a young pig's obvious enjoyment, a family learns to embrace mud! This book will help build younger children's descriptive vocabulary.

### Sand (Jump into Science series)

By Ellen Prager; illustrated by Nancy Woodman. (2007, National Children's Books)
This lively book uses collage-style images to explain what sand is and where it comes from.

### Under One Rock: Bugs, Slugs, and Other Ughs (Sharing Nature With Children Book)

By Anthony Fredericks; illustrated by Jennifer DiRubbio. (2001, Dawn)

This winner of the 2003 Learning Magazine Teacher's Choice Award offers children a fascinating peek at the community of creatures that live in soil. A good introduction for younger readers.

### **The Worm Book**

Loren Nancarrow and Janet Hogan Taylor. (1998, Ten Speed Press)

This comprehensive reference book for teachers is a complete guide to gardening and composting with worms.