

## EXPLORING SOIL

### Focus Lesson: Ingredients of Soil

#### Materials:

Wax Paper  
Soil  
Tools (i.e. tweezers, toothpicks, magnifying glasses)  
Rubber Gloves  
Paper to Document Specimens  
Books from Reading List  
*What is Soil* from <http://soils4kids.org/about>

**Time:** 45 min. - hour

#### \*Common Core Standards:

#### **CCSS.ELA-Literacy.SL.2.1**

Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.

**Thinking Skill: Discovering, Documenting, and Analyzing**

#### Objective:

Students will discover what makes up soil  
Students will use hands-on techniques to manipulate soil  
Students will keep track of the “ingredients” in soil by drawing and labeling what they find

#### Connection:

We’ve been learning about what we use to make a pizza and where all of these ingredients come from. In order to have any of these ingredients, even the cheese, we have to start with good, fertile soil. What does it mean to be fertile?  
- talk about the nutrients, including water, that plants use in soil to grow and be healthy and strong

#### Explicit Instruction:

Read *Dirt* by Steve “The Dirtmeister” Tomecek as a class.

Soil is made of many different things, dirt, rocks, bugs, roots, etc. Many people just think of it as grainy brown stuff, but it’s much more complex than that! It is lots of pieces of the environment ground up into tiny pieces thanks to wind and rain and other weather elements.

#### Guided Practice:

Today we’re going to be exploring soil. Your job is to determine what kinds of things soil is made of. You’re going to have multiple tools to go digging through your dirt and pick the pieces apart. Don’t be afraid to get a little dirty!

### **Independent Practice:**

Provide each student with a pile of fresh soil

- having a piece of wax paper on each desk would be a good idea for cleanup purposes

Allow students to explore their soil with their hands, toothpicks, tweezers, and magnifying glasses

- any interesting specimens, from little stones to insects, should be documented with a name and picture on a sheet of paper

### **Reflection – Group Share:**

Come together as a group and share what you found

- if a document camera is available, this would be a useful way to display students' drawings of specimens

Finish by discussing as a class what kind of soil we would want to have when planting our tomatoes.

### **Reading List:**

*Dirt* by Steve “The Dirtmeister” Tomecek

*A Handful of Dirt* by Raymond Bial

*One Small Square Backyard* by Donald M. Silver

*What is Soil* from <http://soils4kids.org/about>

### **Teacher Note:**