

Community in the Classroom Presentation Plan

Lesson Name Soil Isn't Dirty; It's Diverse!

Presenter(s) Becca Ryals

Grade Level 2nd

Standards Connection(s) Soils, created from rock & organic matter, differ in color, texture, water retention, ability to support growth.

Abstract:

Your opportunity to tell teachers and kids what's going to be fun and interesting about your visit!

Vocabulary/Definitions:

Organic things are or used to be alive.

Inorganic things were never alive, like rocks.

Texture is one way soil scientists tell the difference between soil types. The main three soil textures are *sand*, *loam* (a mixture of sand and clay), and *clay*.

Materials:

What you'll bring with you

- 10 hand lenses
- plastic cups filled with different types of soil
- paper plates
- maps of California with stars representing where soil came from
- pictures of soil sampling sites
- activity sheets

What students should have ready

- pencils

Classroom Set-up:

Students will be placed in groups of two. Each group will get four cups (each with a different soil type) and two paper plates. Setting up groups and handing out materials should only take a few minutes. About five minutes will be needed for clean-up.

Classroom Visit

1. Personal Introduction: 5 Minutes

I love hiking and being outdoors. Until someone else taught me about soil, I always looked at the sky and the plants around me, but I never looked down to see what was beneath my feet. I never knew that soil could be so different depending on the type of environment it is in. I want to share my appreciation for soil diversity with you!

Topic Introduction: 10 Minutes

Students will come up with an initial definition for soil and words to describe soil. They will also look at pictures of the different environments that the soil samples came from (wetland, lawn, forest, beach).

2. Learning Experience(s): 20 Minutes



Students will work in small groups to describe different soil samples using four of their five senses. They will use a worksheet to guide the activity, and then try to connect each soil samples with the pictures of the different environments. I will have a map of California, showing them where the locations within the state where the soil was collected.

3. Wrap-up: Sharing Experiences and Building Connections _____ **10** _____ **Minutes**

The class will discuss how they knew where each soil samples came from and decide on a final definition of soil. They will look at more pictures of different environments and their soils to demonstrate the wide variety of soils in the world.

4. Close: _____ **8** _____ **Minutes**

To learn more, the students can explore by going on “nature walks” at home with an adult. Thanks and good-bye! Clean-up.

TOTAL _____ **52** _____ **Minutes**

Follow-up – After Presentation

Suggest students write a letter explaining “How we learned about soil”

List or attach examples of activities, websites, connections for additional learning.

Attach worksheets, hand-outs, visuals used in classroom presentation.



NAME _____

SOIL ISN'T DIRTY, IT'S DIVERSE!

Use four of your five senses to describe your soil.

Which sense do soil scientists not use?

(1) WHAT COLORS DO YOU **SEE**?

black dark brown medium brown light brown white

red orange yellow green blue

(2) WHAT THINGS DO YOU **SEE** IN YOUR SOIL? DRAW A PICTURE OF A PLANT OR ANIMAL YOU SEE IN YOUR SOIL ON THE BACK OF THIS PAGE.

ORGANIC things: leaves roots sticks worms insects

INORGANIC things: rocks sand

(3) HOW DOES YOUR SOIL **FEEL** WHEN YOU RUB IT IN YOUR FINGERS?

smooth rough in-between

(4) WHAT DO YOU **HEAR** WHEN YOU RUB YOUR SOIL?

a lot of noise some noise no noise

(5) WHAT DO YOU **SMELL**?

rotten eggs nothing

(6) WHAT KIND OF TEXTURE DOES YOUR SOIL HAVE?

If your soil is rough and makes noise, scientists call it a SAND.

If your soil is sort of smooth and makes some noise, scientists call it a LOAM.

If your soil is smooth and does not make noise, scientists call it a CLAY

