

Soil is not a dirty word.

Objective(s):

- ☀ Students will know the difference between soil and “dirt”.
- ☀ Students will be able to identify the 3 components of soil texture.
- ☀ Students will be able to list soil forming factors and explain how soil is formed

Materials:

Hand lenses, water misting bottles, 5 samples of soils, 3 samples (sand, clay, silt)

Procedures:

1. Brief student discussion to include:
 - How is soil different from dirt?
 - Where do you find soil?
 - Is all soil the same?
 - Is soil valuable?
 - What can you do with soil?
 - What do you think makes up soil?
2. Student exploration (teacher instruction on use of tools available)

Students will investigate 8 different stations that contain different types of soils or soil forming materials. Hand lenses and water mister bottles will be available to aid in their observations. They will record their observations and then fill in a chart listing similarities and differences between the 8 samples.
3. Discussion of results from observation activities.
 - Introduction of the soil texture triangle
 - Introduction of parent material and weathering
 - Introduction of humus and organic material
 - Introduction of the concept of “pore space”
 - Conclusion with 5 soil forming factors (topography, climate, organisms, time, parent material)
4. Internet research to answer the question:

“What functions do soils perform in the environment?”

Follow-up Activities:

1. What type of soil(s) are where you live?

Students will use the internet site [Http://websoilsurvey.nrcs.usda.gov](http://websoilsurvey.nrcs.usda.gov) to find their home and the type of soil(s) it is built on.

Demonstration of how to use this web site and its mapping functions will be needed.

2. Best use of soils as a society.

