

Soil Surveys can provide the link between a classroom of students and their environment.



Local maps, charts, and narratives found in your county's survey can provide your class with activities in many areas of study: math, science, social studies, and language arts.

The usefulness of soil survey maps becomes evident as you explore different land uses and their effects on the quality of life and the environment. A soil map displays the types of soils found in any location of interest. You can use these maps and text to determine which land uses are best suited to each soil landscape.

Soil surveys help in planning the layout and maintenance of parks, campsites, ski areas, and golf courses. Your county's survey can help you decide where to buy property or where to build your house.

All programs and services of the Soil Conservation Service are provided without regard to race, color, religion, sex, national origin, age, or handicap.

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Bringing the Soil Survey into Your Classroom



We use it, we abuse it, we take it for granted. Yet our world could not exist without it.

It is our SOIL.

The soil survey is the most intensive resource inventory of land *ever* made in the United States. The soil survey is an extremely useful tool for both students and adults to examine the intricate relationships between humans and the world around them.

In Social Studies:

- Have your students find their town and school on a soils map. Identify the soil type on which the school is built.
- Have them find out as much as they can about this soil. What are its best uses? What would be a poor use of this soil?
- What are the past uses of the schoolground -- was it formerly farmland, pasture or woodland?
- Have any artifacts been found in this area? Locate a nearby historic site on the soils map.
- Could soil type have influenced the uses of this site?

In Geography:

- Study map symbols and man-made features. How did the features get there?
- Have your students find their town and school on the soils map. From the school, trace the travel route to their homes.
- What is the main soil in the neighborhood? Is it a good soil for homes?
- Is there a part of the town that floods from time to time? What is the soil type in this area? If the soil survey had been available, could the flooding problem have been avoided? How?
- Locate a nearby farm on the soils map. Does it have good soils for growing crops?

Things to think about when using a soil survey:

- What makes one soil different from another?
- Why are farms and houses on certain soils but not on others? Why are cities where they are?
- What soils would be best for building new schools, houses, and shopping malls? What soils should be saved for farmland?
- Which soils can support endangered species? Why?
- What is a wetland soil? What makes it wet?
- What landscapes do the soil maps represent? How do soils relate to the ecosystems on each type of landscape?
- How have land use patterns developed historically in relation to soil types? Where is future development likely to occur?

For more information about teaching soils, "Conserving Soil" is available from the National Association of Conservation Districts (NACD) by calling 1-800-825-5547. Information is also available at the following web sites:
www.nacdnet.org/education
www.nrcs.usda.gov/feature/education
www.aginclassroom.org

In Science:

- Have your students research how soil is formed. What is the geologic connection to soil type and properties.
- Did the ancient glaciers affect the soils in your area? How?
- Study the relationships between soil, climate and native plants.
- Determine the PH (acidity/alkalinity) of a soil.
- What role does wetland soil play in the ecosystem?
- Build an accurate 3-dimensional model using the soil survey. Use paper mache to make the mountains and the valleys. Paint the lakes and rivers blue.

In Environmental Studies:

- Discuss which is the best use of a level, well-drained soil - homes or farms? What is the best use of hilly land.
- Find a piece of land on the soil map that would be ideal for a pond. How about a new park or wildlife refuge? How about a new road or building?
- If your students could rebuild their town, how would they change it based on the information in the soil survey?
- What soils are subject to erosion? What types of soils carry pollutants quicker and easier than other types?