

## Mapping Your Soil – Learn About the Soil at Your School!

AGI Earth Science Week Calendar, 2014

Once you have completed the Soil Survey Exercise (found in the 2014 AGI Earth Science Week Kit calendar), there are many opportunities for discussions with your students. Additional information about soil orders can be found on the 12 Orders of Soil Taxonomy poster included in the kit.

Ideas for talking points:

1. How many acres and where else in the country would you find the exact same soil? There are over 2.3 billion acres in the United States and 20,000 soil series. Visit the USDA Official Soil Series Descriptions page <http://soils.usda.gov/technical/classification/osd/index.html>, select the View **OSD** by Series Name (with best-match feature) and enter the soil series name (ex: Batavia, Colwood, etc). Read the details of the soil or click View Extent Map to see exactly where the soil is found in the US. As a math exercise, what is the percentage of that soil compared to the total acres in the United States?
2. Do you have a “sister” school in another part of the United States? If yes, compare and contrast the different soils. What is similar and what is different – why might this be? (consider soil color, texture, slope and the five soil forming factors-CIORPT)
  - a. If there was no building, would this be prime farmland? (click on soil name in the Soil Map tab) Why is prime farmland important?
  - b. Could we add a basement to the building (is the land prone to flooding)? (click on the Soil Data Explorer, Building Site Development, Dwellings with Basements)
  - c. There are 12 soil orders. What is the order of the soil at your school? How are the 12 soil orders different? The University of Idaho has an excellent explanation of the orders and both US and World maps where the different orders can be found at <http://www.cals.uidaho.edu/soilorders/>.
  - d. How well does water move through the soil (hydraulic and erosion ratings). Why would water flow more easily through some soil than others? Click this link for more information on water movement through soil and an activity: <http://soils4teachers.org/files/s4t/lessons/perkin-through.pdf>
  - e. If available, compare and contrast the types of native vegetation that occurs (Suitability and Limitations tab, Land Classification).

Tips and Shortcuts: [http://websoilsurvey.nrcs.usda.gov/app/Tips\\_Shortcuts.htm](http://websoilsurvey.nrcs.usda.gov/app/Tips_Shortcuts.htm)