

Tuesday, August 30, 2016

Report to the National Park Service in fulfillment of the research permit

To Whom This May Concern:

Teaching is a challenge under the best of circumstances. Teaching summer school at a juvenile detention facility, the challenge gets kicked up a notch (or two!).

When I asked the kids what they wanted to learn over the summer, they said they wanted to learn botany. So we did the usual: planted an herb garden, studied water ecology and how pollution affects the land (and by extension, plants), and the properties of soil. In a regular school setting, the usual procedure would be for students to scatter around the school grounds, locate their patch of soil, mark it on a school map, and do their analysis.

But how do you teach soil and plant biology when students cannot leave the building? Answer: bring the soil from outside . . . in. I was originally going to take a weekend, drive around town, and collect soil from different areas. Then I had an idea: why not collect soil from all over the country? I reached out to various "famous places" and requested soil from their grounds for the kids to analyze. I got some very interesting responses, from "This is unprecedented!" to "You just want . . . dirt?"

A Social Studies teacher by training (and excitable by nature), I decided not to limit the science project just to science; I decided to add geography and history to the mix. The project was getting really interesting!

The project evolved, and ultimately each student:

- Learned the Scientific Method and proper observation and documentation methods;
- Performed Soil Properties Classification (all students classified all soils);
- Conducted Nitrogen, Phosphorous, Potassium (NPK) and pH testing;
- Researched what each of the above tests mean in terms of soil health;
- Researched the climate and geography of the region;
- Researched the history of the location where they received the soil;
- Created and presented their report to the class.

All together, we received dirt from the following 16 places:

- Fort McHenry
- Sutter's Mill
- Minuteman National park
- Independence Hall
- Ellis Island
- Manzanar
- Fort Sumpter
- Edison Labs
- Death Valley
- Yorktown
- Valley Forge
- Appomattox Courthouse
- Golden Spike
- The Alamo
- *Brown v. Board of Ed.* Historic Site
- Fort Clatsop

Best of all, the students rose to the challenge! Not only did they follow correct analysis procedures, but they also wrote very good historical and scientific summaries.

In the end, the students had fun, learned a few things, and got to “visit” places they otherwise would not have been able to go. I also learned an important lesson about creatively teaching across the curriculum.

Respectfully Submitted:

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