Project Update

The 2015 Summer Institute was a record-breaker for the SLED project! Nearly 120 teachers, from school districts spanning the state, participated this past summer and are implementing project activities during the current academic year. The map at the right shows the school districts where SLED is being used.

The project is now in its final year of funding. Actually, we have already moved into what is referred to as a non-funded extension. We are getting no new dollars from the National Science Foundation, but we are continuing to expend the funds we have already received to carry out the goals and activities of the project. We will continue to support you throughout this academic year, and we hope that we will be able to help sustain your efforts going forward.

We had a great on-campus follow-up session in November, and we plan to schedule another follow-up during the spring semester. We will let you know dates and times after the start of the new year.
Canal Design with a Twist

Aaron Hamilton

After being introduced to the design process with a review of sound and an instrument design, Wyandotte 4th grade attempted the Canal design task with a twist. The prompt was reworded to ask students to build an erosion control system that would stop soil from eroding onto their nearby playground. Students connected with the problem very well, and then they set out with a goal in mind to stop their playground from being covered with the sand. All groups were successful to some degree as the designs allowed water to run-off the structure, but did not allow sand to pass onto the playground.

Literacy Tie-in For Reindeer Habitat

Elizabeth Hittle

In preparation for the Reindeer Habitat design task at Sunny-side Intermediate School in Lafayette, I plan on doing literature circles with the nonfiction book Caribou: And Reindeer Too. This will help students to learn about the needs of reindeer. I then plan on doing a whole group read called The Mystery of Saint Matthew Island. We will be focusing on vocabulary and reindeer habitats in that book. Students will then pick a different animal to research habitat needs, and then will write a comparative essay between that animal and reindeer. This will lead into the reindeer habitat SLED activity with Mr. Yuill.
Hold that Water!

Terri Fisher

I am a 3rd grade teacher at Burnett Creek Elementary School. My class has participated in two design challenges so far this year. As a teacher, my favorite design challenge is the designing and constructing of the Earthen Dam. This design challenge requires the students to use at least two different earth materials in constructing the dam. The dam also must hold water for at least five minutes without leaking. The problem: You want to go fishing at the creek near our school, but it is running dry for several months. In order to get fish, the creek needs to retain some water when it rains in the future. The mayor of West Lafayette is looking for someone to design an earthen dam to retain water in the creek. The materials provided were: plastic shoe box, cotton balls, modeling clay, plastic cups, coffee filters, cheese cloth, sand, gravel, and potting soil.

As the students began working through the steps in the engineering design process, they identified all parts of the design brief (problem, goal, constraints, criteria, end user, and client). Then, the teams worked to develop and share a plan. Individual designs were sketched and then shared with their team. Each team then worked together to sketch a group design. Next, the students worked to create and test their design.

This design challenge is my favorite one of the four that I do with my class each year. I think it is my favorite because this particular design challenge shows the most excitement and scientific curiosity from the students.
INSPIRE Engineering Gift Guide

Purdue’s INSPIRE Research Institute for Pre-College Engineering, for the second year, has issued an Engineering Gift Guide just in time for the holiday shopping season. The guide this year has more than 50 fun toy and application suggestions intended to engage girls and boys in engineering thinking and design. Thirty books offering stories and facts about engineering for ages 3-18 also are in the guide. To access the guide, click the link above, or point your browser to http://inspire-purdue.org/EngineeringGiftGuide.

Fall Reflections Due

Reminder: Participating teachers are each required to upload a reflection about the implementation of a SLED activity in your classroom on or before December 14th. A second reflection will be due in the spring. For information about what to upload and how to do it, visit the main SLEDhub site (under Participant Resources) or the SLEDteach group. Recall that when you submit your reflection you should do so through the SLEDteach group, which is not visible to those outside of the project. If you have any problems with the upload process, please contact Jim Lehman (lehman@purdue.edu).

Happy Holidays!

from Santa and his sleigh