Using Web GIS in Science Teacher Education

Alec Bodzin and Denise Bressler
Environmental Literacy and Inquiry Group
http://www.ei.lehigh.edu/eli

Alec Bodzin - Science and Environmental Education, Instructional Design
David Anastasio – Earth and Environmental Science
Dork Sahagian - Earth and Environmental Science
Lori Cirruci – Lead classroom science teacher
Allison Teletzke - GIS; Earth and Environmental Science
Jill Burrows - GIS; Earth and Environmental Science
Denise Bressler – Science Education
Scott Rutzmoyer – Web GIS
Violet Kulo – Instructional Design and Web Development
Laura Turner – Web Development
Farah Vallera– Data management
Middle school science teachers
Web GIS

- Geographical Information System that includes data (information) and maps with a computer interface tied together to create a visualization tool.

- Representing, questioning, and analyzing georeferenced and other data.

- Visualizations and tool features designed to enable geospatial thinking.

- Javascript Web GIS – platform independent (i.e. tablets, laptops, cellphones)
Where’s the nearest hazard to my location?

from Investigation 1
Where’s the nearest hazard to my location?

Custom GIS For Each Investigation

from Investigation 5
How do we recognize plate boundaries?
How does thermal energy move around in the Earth?
OneGeology
http://www.onegeology.org/
Project Budburst (Fieldscope)
http://budburst.fieldscope.org/
Project Budburst (Fieldscope)
http://budburst.fieldscope.org
Jean Lafitte BioBlitz
http://lafitte.fieldscope.org/
Jean Lafitte BioBlitz
http://lafitte.fieldscope.org/
Where is the best place to locate a new wind farm?

http://gisweb.cc.lehigh.edu/energy/  ArcGIS viewer for Flex
Energy Culminating Investigation: Island of Navitas

http://gisweb.cc.lehigh.edu/navitas/

ArcGIS viewer for Flex
Questions or Comments?

Featured Web sites
Environmental Literacy and Inquiry
http://www.ei.lehigh.edu/eli

FieldScope
http://education.nationalgeographic.com/education/program/fieldscope

OneGeology
www.onegeology.org