Exploring a Methodical Approach for Integrating and Applying GIS in Education

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What we heard...

“we need a textbook for teachers and pre-service teachers”
With a combined 100 years of teaching & 75 years of geospatial teaching experience...
Techniques for Pedagogy, Integration and GIS

01 Using Pre-created Story Maps
02 Using GeoInquiries
03 Using Pre-created Web Maps
04 Adapted GeoInquiries
05 Making Maps & Data Collection
06 Project Based Learning
Pre-created Story Maps

- Search the gallery by topic for a great place to start.
- It’s a perfect beginners tool.
- Explore the maps vetted by Esri Story Maps team.
Use GeoInquiries

- 13 collections
- Designed for Instructors to guide students through a 15-20 minute discussion.
- Adaptable, CC Licensed content
- Standards and Textbook referenced
Pre-Created Web Maps

• Search by Topic at arcgis.com
• Historical figures or events
• Famous Authors
• Scientific Research
Hacking GeoInquiries: Tools for Customization


GeoInquiries are short, standards-based inquiry activities for teaching map-based concepts found in commonly used textbooks. Using an inquiry instructional model, GeoInquiries integrate ArcGIS Online technology to support subject matter content teaching. Lessons include learning objectives, technical “how-to’s”, textbook references, and formative whole-class assessment items—all packed into one page. These activities are technology agnostic and can be delivered in a classroom with as little as a tablet and a projector. Any teacher can use a GeoInquiry, regardless of their prior experience with digital mapping tools. For questions or concerns, email geoinquiries@esri.com

The goal of these wiki-style pages is to help you, the classroom instructor, move beyond the “out-of-the-box” geoInquiries, customizing the maps and activities to your needs. The page is accessible at: http://bit.ly/HackingGeoInquiries

- GeoInquiries -->
- Hacking the instruction sets -->
- Hacking GeoInquiry maps -->
- Hacking GeoInquiry data --
- Analyzing GeoInquiry data -->

Educational Research

A growing bibliography of geoInquiry academic articles and research is now online at http://bit.ly/GeoInquiryPubs.
Making Maps & Data Collection

- Consider who makes the map
- When do you need to collect and create data?
Project-Based Learning & GIS

Connecting PBL with Geographic Inquiry

Give students essential experiences in analysis, planning, data creation, and communication.
Applying the GIS Advantage - Analysis

ANALYSIS SCENARIO 3

A group of students are doing a project on the major river systems of the United States and were assigned the Mississippi River System. They would like to create a map that shows the Mississippi River, the major rivers of the Mississippi River System, and all the US States that intersect these rivers.
Now, where to store maps and data?

What is the best way to organize your ArcGIS Organization?

When do you introduce students to their own accounts?

How do you take advantage of groups?
Thank you!
Questions?
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