



GEOGRAPHY EDUCATORS' NETWORK OF INDIANA

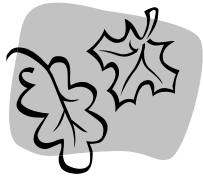
NEWSLETTER

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How can we fix the world if we can't read a map?

Without a good grasp of geography, terrorism may be tougher to fight

By David J. Smith.

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Compromise is what maps and mapmakers are all about. When I teach geography, this is the first principle I teach.

To demonstrate this, I use "the *grapefruit lesson." Take a grapefruit. Think of it as the Earth. Identify the North and South poles. Then, with a marker, draw a line around the Earth between the poles (the Equator).

Draw a few lines of longitude. Then draw a few shapes on the surface to suggest the continents. Finally, using a knife, remove the skin of the grapefruit so that it can be both a flat and readable map of the world.

When students do this, of course, they dis-

cover that the final step is impossible. It can only be done by tearing the skin to shreds, or subdividing it into impossibly small segments. This leads to conversations about map projections and their inherent compromises of shape or size.

Understanding this is the first step toward understanding what geography is really about. **(Note-lesson on the GENI website)*

Noted geographer Harm de Blij does something similar - and a good deal more - in his remarkable new book "Why Geography Matters."

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Update on New Course: *Geography and History of the World*

The completion of the standards and indicators for the new high school Social Studies course, "The Geography and History of the World", is near. The proposed document must first be reviewed by informed and respected national history and geography educators, reviewed by Indiana educators, and then, approved by state political leaders. The document is dynamic, appropriate, and educator-friendly. It also provides clear goals that can be reached from a broad methodology. Once the Indiana Department of Education approves the document for review by Indiana educators, your comments will be solicited.

As it currently exists, the new standards and indicators reflect the need for student understanding of both the physical and human aspects of our world. In order to become informed and capable citizens of the twenty-first century, students must have this multi-dimensional, spatial (*geographical*) knowledge that connects them to their world. Global economics, environmental issues, epidemiology, cultural interchanges, political interactions, land management, and natural hazards impact our lives, whether in our neighborhood or around the globe. Students must understand the connectivity of various facets of life. In order to prepare themselves

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Special Points of

Interest:

- GeoFest 2005—Brown County State Park
- "Teaching Geography is Fundamental" Bill
- Geographically literate students
- Get your school registered for the 2006 Geographic Bee by October 15th!

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Calendar of Events:

- Aug. 27—**GENI Advance Board Meeting** to be held at Thorntown Heritage Museum from 8:30am to 3:00pm. All are welcome to attend!
- Oct. (TBA)—**Geography Awareness Week/Geography Action! After-School Workshop** hosted by GENI, to be held at Northview Middle School on the north side of Indy. Contact Hilary at the GENI office for more information.
- Oct. 12-15—**NCGE Annual Conference** to be held in Birmingham, Alabama. For details and information, visit www.ncge.org.
- Oct. 14-15—GENI's annual **Fall GeoFest** to be held at Brown county State Park from 5:00pm Friday until 4:pm on Saturday.
- Oct. 15—Deadline for the 2006 **National Geographic Bee** school registration. See page 7.
- Oct. 18—**GIS (Geographic Information Systems) Workshop** at the IUPUI University Library. Contact GENI office for details.
- Nov. 3-6—**2005 International Festival** at the Indiana State Fairgrounds. Cultural displays, entertainment, ethnic foods, global bazaar, and several education programs available. Contact Pat Hubley at 317-236-6515 or phubley@familyevents.com. Visit <http://nationalitiescouncil.org/2005a.html>.
- Nov. 13-19 – **GEOGRAPHY ACTION! - GEOGRAPHY AWARENESS WEEK** "Migration: The Human Journey". Remember that only paid GENI members will receive a GENI GAW Newsletter including resources provided by the National Geographic. Watch the GENI website for additional after-school workshops around the state. Visit the following and get started: www.nationalgeographic.com/geographyaction.
- Nov. 16— The sixth annual **National GIS Day** will highlight a variety of workshops at the IUPUI Library. Watch the GENI website for additional information.
- Dec. 2-3—GENI will host its **Strategic Planning Board Meeting** on Friday evening and Saturday, at the Indianapolis Holiday Inn Express Northeast; contact Jill Bowman for attendance information at (317)842-8039.

Resources:

- ⇒ Learn about global issues and take action with your students. Lesson plans and activities at www.teacherscorner.org.
- ⇒ Ten Backyard Science Activities, including map making activities. Visit Family Education (Pre-K-2, 3-5, and 6-12) at www.familyeducation.com/article/0,1120,1-11420,00.html.
- ⇒ Fun physical geography for kids at www.geography4kids.com.
- ⇒ Children's literature listed by subjects and themes at www.carolhurst.com.
- ⇒ Great listing of *Internet Resources Related to Books for Children and Young Adults* www.acs.ucalgary.ca/~dkbrown/index.html.
- ⇒ New experiential learning program designed to motivate middle schoolers to explore the world around them from the NG Channel—"Everyday Explorer." Activities at www.nationalgeographic.com/xpeditions/activities/08/evexplore4.html.
- ⇒ Lesson plans to accompany the above, www.nationalgeographic.com/xpeditions/lessons/08/g68/evexplore4.html.
- ⇒ The National Geographic will send 15 winning students on the first-ever kids expedition to the Galapagos Islands in the Everyday Explorer Challenge. Deadline-October 31. Must be ages 9 to 14 to enter, visit www.everydayexplorer.com/contest.html.
- ⇒ **New lessons from NGS:**
 - How's The Weather Today? (K-2) <http://ng.ck12.org/a/tBCwcTiASJ4TXAXX3yEAODqJgAz/ngs9>
 - El Niño: More Than Just Hot Air? (K-2) <http://ng.ck12.org/a/tBCwcTiASJ4TXAXX3yEAODqJgAz/ngs10>
 - The Active Earth (3-5) <http://ng.ck12.org/a/tBCwcTiASJ4TXAXX3yEAODqJgAz/ngs11>
 - Weather Complaints (3-5) <http://ng.ck12.org/a/tBCwcTiASJ4TXAXX3yEAODqJgAz/ngs12>
 - Sister Storms: Children of Tropical Seas (6-8) <http://ng.ck12.org/a/tBCwcTiASJ4TXAXX3yEAODqJgAz/ngs13>
 - Climate Controls (6-8) <http://ng.ck12.org/a/tBCwcTiASJ4TXAXX3yEAODqJgAz/ngs14>
 - Weather and Agriculture (9-12) <http://ng.ck12.org/a/tBCwcTiASJ4TXAXX3yEAODqJgAz/ngs15>
 - What's Up With the Weather? (9-12) <http://ng.ck12.org/a/tBCwcTiASJ4TXAXX3yEAODqJgAz/ngs21>



(Continued from page 1)

This is not an academic tome or a technical book about geography. It is a friendly and accessible reader for those who have a basic grasp of some of the concepts of geography and who want to understand where the world is headed.

It is also an urgent call to educators across the United States to restore the study of geography to the nation's schools. Climate change, terrorism, and massive population shifts cannot be fully grasped without a grounding in geography that US students are not currently getting, he contends.

"Geographic knowledge by itself cannot solve these problems," writes de Blij, who is a geography professor and editor at the National Geographic Society. "But they will not be effectively approached without it."

As one example to support his argument that geography matters, he takes a close look at the American-led invasion of Iraq and the consequences incurred there by gaps in geographic knowledge on the part of US officials and decision makers.

He writes, "The invasion of Iraq changed the political and cultural geography of terrorism... [generating] a counterinsurgency that attracted thousands of foreign fighters and provided them a training ground Osama Bin Laden could only have dreamed of ... [and revealing] disqualifying miscalculations on the part of planners who should have known their political and cultural geography better."

De Blij begins his book with two chapters on the generalized importance of geography and on the basics of maps and cartography.

He then moves on to what he calls "Three Challenges Facing America" - climate change, the rise of China, and global terrorism.

He devotes three or four chapters to each of these topics and is encyclopedic yet comprehensible as he covers the historical perspective, the present, and possible future directions.

The historical perspective on climate change is huge: He begins 4.6 million years ago. And yet he brings everything up to the latest present-day research.

At one point he discusses the cycles of climate change through history and notes that the future promises ab-

rupt climate changes, likely to be triggered even sooner and more powerfully because of the impact of human activity on the global atmosphere.

He does not leave out the critical issue of population densities: "When it comes to depicting the current world population on a map, it is well to remember that no single map can adequately represent the complexities involved."

This leads to subsections on "Population and Politics" and "Population and Environment" and, finally, "The Penalty of Poverty," asking how it is that "the poorest of the world's countries tend to have the highest rates of population growth."

The chapters on China begin with a historic view of civilizations, of geopolitics and boundaries, and lead to a section titled "Global Civilizations - Mesh or Clash."

He considers China's changing geography as it continued to evolve over centuries, and he looks at the "Modern Map of the Chinese Empire" saying, "Make no mistake: China remains a modern-day empire."

The last section, on global terrorism, includes a sweeping look at the changing face of Islam, and the potential threats to the United States and to the rest of the world.

De Blij finishes not with terrorism but with a look at three other growing and changing realms: the European Union, Russia, and Africa. His epilogue is a reasoned and thoughtful analysis of the global effect of the US as the world's largest (or only) superpower, doing good and bringing hope in countless ways but also alienating much of the world "through unilateral and overbearing actions in pursuit of goals with which many of its cohorts do not agree."

A powerful and deeply personal writer, de Blij discusses his own background in detail and fills the book with anecdotes from his experience. This makes for an entertaining and enlightening trek through the compromises required in a complex, challenging, and dangerous world.

- David J. Smith is the author of 'If The World Were a Village' and 'Mapping The World By Heart.' Website: www.mapping.com

Why Geography matters: Three Challenges Facing America, By Harm de Blij, Oxford University Press
288 pp., \$30



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for employment and participation in society, students must be prepared to view the world through a geographer's lens: multi-dimensionally. Many ways in which to achieve this geographic perspective are through the skills and concepts implemented when utilizing geo-spatial technologies: GPS, GIS, aerial photography (orthophotography), satellite imagery, remote sensing. Through the understanding of these geo-spatial technology tools, students become more employable in many diverse fields: medical/health, religious, water/soil/waste management, land-use, real-estate/building, research, cultural needs, education, transportation... Geography leads to an expanded understanding of the world while enhancing employment opportunities.

Once this new set of standards and indicators becomes available and begins implementation, Indiana will provide a life-long learning focus in geography, connecting the Indiana Academic Standards (Geography) in grades kindergarten through high school to diverse post-secondary venues to dynamic employment opportunities. The Indiana Geography Academic Standards begin with basic spatial and global foundational development in the elementary grades, evolve to global knowledge acquisition in the middle grades, and continue knowledge acquisition while highlighting knowledge, skills, and concepts applications leading to better understanding of the world in which our students will become active citizens. Be-

yond high school, geography opportunities abound in many forms: traditional four-year degree, two-year geo-spatial technology diplomas, Master's Degree, weekend and evening course supplements, and collaboration with other degree programs. Once employed, those either interested in or utilizing geography or geo-spatial technology skills can become involved with several organizations based upon areas of interest: research, education methodologies, skills applications. And the network(s) connecting each level has been fairly strong, ensuring support and continuity.

The geography connection between kindergarten and employment will continue to strengthen as individuals become savvy to the need for geographically literate citizens and leaders and become aware of the power of geo-spatial technologies in the twenty-first century, global society. An informal estimate, made by an individual after speaking with his international colleagues – many of whom are the world's leaders in geospatial thinking – about the growth of global job opportunities in geospatial technologies projected a minimum of 25% in the next twenty years. The new course will connect Indiana students to these opportunities.

THANK YOU for your patience!

Kathy Kozenski

GENI Executive Director



U.S. Senate Considers Bill —“Teaching Geography is Fundamental”

From the National Geographic Education & Children's Programs Announcements>July 26, 2005

In a welcome move for geography educators, Senator Thad Cochran (R-MS) has recently introduced a bill that seeks to designate federal funds for the improvement of geography education, one of the nine core academic disciplines identified in the federal "No Child Left Behind" Act. Mr. Cochran's "Teaching Geography is Fundamental" Act (S. 1376) enjoys prominent bipartisan support from co-sponsors Ted Stevens (R-AK), John Warner (R-VA), Chris Dodd (D-CT), Daniel Akaka (D-HI), and Conrad Burns (R-MT).

The bill is designed to improve the quality of primary- and secondary-grade geography instruction by supporting programs, such as the Alliances, that connect K-12 teachers with the geographic knowledge and expertise of university faculty members. The legislation also includes provisions for new research and dissemination of model programs.

The bill's sponsors were motivated by evidence that Americans are falling behind the rest of the world on key issues of geographic literacy, and the fact that geography education is the only core academic discipline not to receive designated federal funding. According to the bill, "geographic literacy is essential to a well-prepared citizenry in the 21st Century because geographic factors assume greater importance as the world's economies, societies, and political structures grow more global in scale." The legislation cites the 2002 National Geographic-Roper Global Geographic Literacy Survey. (<http://www.nationalgeographic.com/geosurvey/download/RoperSurvey.pdf>)

The National Geographic EdNet will provide updates as the bill, which is designed to become part of the reauthorization of the "Higher Education" Act, moves along. Visit <http://www.ngsednet.org> for more information. If you have questions, contact foundation@ngs.org.



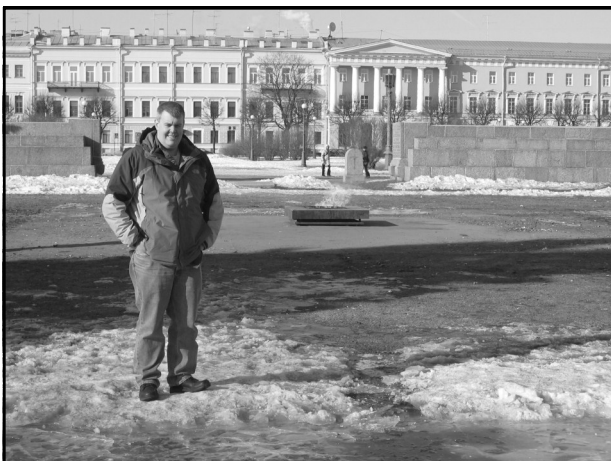
TC Shares Russian Exchange Experiences

GENI Teacher Consultant and Board of Directors Member, Scott Royer from McCutcheon High School in Lafayette, shares his recent experience with the Civics Mosaic Program:

I had the fortunate opportunity to visit Russia in late March and early April through the Civics Mosaic program for teachers. Civics Mosaic uses teacher exchanges, research projects, seminars and conferences to develop a textbook and other resources that will help students understand their country's own political principles and choices by comparing and contrasting them with those of other countries. Civics Mosaic is designed to teach students core civics concepts by comparing their use over time in political systems around the world. Several regions have been designated to participate. I hosted and traveled as a fellow from the Indiana Region along with Dan Ronk. We were matched up with educators from the region of Kirov.

Our trip had three phases. The first began in St. Petersburg where we met with about 15 other teachers. We toured the city for three days. The next phase of our trip began with a two and a half hour train ride to Moscow. Our purpose in Moscow was to visit some of the major sites and do logistical work for the Civics Mosaic program. Tours in Moscow included the Kremlin and Red Square. We concluded our stay with a series of meetings to prepare us for visits to our regions. After a farewell dinner, the fellows departed for their individual regions. Dan and I took a twelve hour train ride east to Kirov, to begin the third and last phase of our trip.

It was in Kirov that most of our time was spent. The primary purpose of our stay in Kirov was to visit their schools and observe how they teach, in particular, social studies. Our hosts set aside time for us to absorb the culture and heritage of Kirov. They called Kirov



“real Russia”, I believe, because it is far enough from the western half of Russia that it has not been heavily influenced by Western European and American culture. Regional pride was evident in every place we visited, and Kirov was no exception. We were given a tour of historical Kirov highlighting its nearly 800 years of existence.

A theme I picked up on during my entire stay was that Russians seem to struggle with the way they view their history, in particular, the revolution. I saw contradictions in the public arena. The Hermitage and Winter Palace, in a way, celebrated the pre-revolution Czarist Russia. On the other hand, they would have monuments to the revolutionaries. On our tour of Kirov, our guide joked that one could find the center of every Russian city by locating a statue of Lenin. St. Petersburg had an entire park area with an eternal flame dedicated to the revolutionaries that were buried there.

Our tours included contemporary cultural places. We were given a tour of the art museum of Kirov. Another stop was the Children's Philharmonic. The philharmonic was for kids around age 7 through teenagers with musical talents. Their specialty seemed to be singing and dancing. We even received a special performance of “Hello Dolly” by a girl who, other than the song, spoke no English. She performed in a red sequenced shirt and matching red cowboy hat. It was interesting to see stereotypes the Russian had of us, such as the idea that we are all cowboys who listen to Broadway music. It was equally interesting to see our stereotypes of Russia fade as our stay progressed. After the performances we got to talk to the children, which was interesting and enjoyable. The children had very good and relevant questions and seemed sincerely interested in learning about our culture as well as sharing their own.

At one of the schools we were given a ballet performance. Ballet was a part of this school's curriculum. Each school we visited seemed to have good outlets for children to pursue the arts. The ballet performance was special for me since both of my daughters take ballet. Seeing them go through their drills reminded me of home and how much I was beginning to miss my family. It also reminded me how art really bridges gaps between cultures. They were doing the same things that are taught in American ballet classes, listening to similar music as they performed.

Most of our time was spent observing academic classes. Social studies was the primary focus, however

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we observed several different subjects. Our hosts took us to four different schools in and around Kirov. We spent most of the time at the Lyceum, which is where most of our regional partners work. The pattern for most of the observations was for the students to give a presentation or for the teacher to conduct class, allowing several minutes at the end for a question and answer session with Dan and me. We were usually placed at a table in the front of the room in a panel discussion format. They would ask us questions about our culture, our school system, national and international politics and our impressions of Russia. The question and answer sessions were rewarding for us as much as it was for the kids.

As in America, teaching seems to be moving in the direction of performance-based, hands-on activities for students. We were given a presentation by students about World War II, which is a very revered and emotional topic in Russian culture since their losses were so great. The presentation began with a student lighting a candle and included several students performing a lecture, poetry and a moving song. It was very moving and I did not need a translator to sense the emotion with which the kids gave this presentation on World War II. Another presentation involved traditional Russian dance. We observed an English class role playing a job interview using only English.

Compared to American students, Russian students seem a bit more focused and determined. Schools seemed to serve less as a social outlet for students but more of a place to conduct the business of learning. Students seemed to make the connection of the importance of what they are doing in school and how it would affect their successes after they graduate and enter college or begin careers. They also equated their academic success as a factor in how their country as a whole would be improved. They understand that Russia is lagging behind many industrialized nations economically. Through the question and answer session, I was impressed that they not only had a good handle on their country's affairs, but also a good grasp on the international issues outside their borders.

Dan and I did get the opportunity to teach one class while in Kirov. The class we taught at the Lyceum spoke English well so we were privileged to teach in our own language. We conducted a comparative lecture and discussion on the geography of Kirov and Lafayette. Both are river towns that experienced growth and prosperity due to their proximity to waterways that allowed commerce to travel to and from their cities. We shared state maps of Indiana and discussed Lafayette's fortune of being located on a major highway between Indianapolis and Chicago. We also discussed differences between the two cities. It was a rewarding experience to say that we taught a class in another country.

If you have a chance to get in an international program, do so. Going to Russia was the opportunity of a lifetime. To see the country and culture that I had only studied brought it to life. Whether it was standing in the room where the Revolutionaries took control from the provisional government, walking up the gates of the Kremlin or visiting a Cathedral in a small country village, I was living and absorbing Russia first hand. My students benefited from it upon my return and future classes will continue to do so. By showing pictures and discussing my experiences they had the opportunity to experience and share in it as well. I have always advised students they should branch out and see the world, yet I had never been out of the country. By doing so, I now have a concrete experience to relate to them. Visiting Russia will not only enhance my units on Russia, but will help me teach about cultural differences, similarities and stereotypes. All of these are valuable for social studies classes.



Civics Mosaic



Comparing political systems around the world

Civics Mosaic is a program for teachers who seek to introduce a comparative political perspective into their classrooms. Through a series of international teacher exchanges, research projects, seminars and conferences, *Civics Mosaic* is developing a textbook and other resources – available free on the Internet – that will help students understand their country's own political principles and choices by comparing and contrasting them with those of other countries. *Civics Mosaic* is designed to teach students core civics concepts by comparing their use over time in political systems around the world. [from <http://civicsmosaic.com>]



Jedediah Hotchkiss—Topographical Engineer of the Civil War

By Scott Royer

When we think of the great battles of the Civil War, we often think of the leaders such as Ulysses Grant or Robert E. Lee. Battlefield guides will always stress the importance of terrain and its effect on the outcome of battle. Unlike modern times, aerial reconnaissance was almost non-existent with the exception of balloons. Typically, a commander had to use his knowledge of the terrain in front of him to create winning strategies. In some cases, local individuals would give information on the land in the area. Commanders would even consult existing civilian maps that offered little information on physical features such as elevation. Often left out of the story however, are the men who created maps for the armies. These “topographical engineers” as they were known could be considered the unsung heroes and deciding factors in many famous battles during the Civil War. One of the most famous of these topographical engineers was Jedediah Hotchkiss.

Topographical engineers had been around for several years, created in 1813 to do surveying for military purposes (1). By the 1860s, it was still a growing field and much of the detail mapping had been done only in the coastal areas. With the changing boundaries as the country continued to expand, accurate mapping of the interior was not yet complete. During the Civil War, much of the fighting occurred inland however, and maps were desperately needed by both sides. During the Civil War, Jedediah Hotchkiss was one of those overlooked individuals who had a great impact on many battles, giving the South successes on the field though usually outnumbered.

Ironically, Hotchkiss was a Northerner originally from New York who settled in Virginia prior to the war. After migrating to Virginia, he lived as a schoolmaster in Staunton. Self taught as a cartographer and surveyor, Hotchkiss enlisted in the Confederate Army as a topographer. He quickly became reputable at his craft and was recruited by Stonewall Jackson, who at one point ordered Hotchkiss “. . . to make me a map of the Valley, from Harpers Ferry to Lexington . . . showing all the points of offence and defence in those places” (2). He created detailed maps that showed not only the physical features of the valley, but also the major roads and intersects. His map detailed the Massanutten Mountain that Jackson would successfully use to hide his troop movements (3). Some

historians credit him with the Shenandoah victory for the South in 1862 (2).

Jackson used these maps to his advantage. Since his tactics involved speed of attack and use of the terrain, Hotchkiss and Jackson were a perfect complement to one another. Hotchkiss advised Jackson on the terrain prior to his great flanking march at Chancellorsville. Here, the South surprised the North after marching several miles around its flank, bringing victory to the much smaller army. Jackson claimed that Jedediah’s skills were the best of anyone that he had worked with (4). After Jackson’s death, Hotchkiss served under Jackson’s replacements as well as the headquarter staff of General Lee.

After earning the respect of both sides, Hotchkiss was paid by General Grant for his maps that were used in Grant’s reports (5). His contributions continued well after the war as well. He assisted the government in creating official records of the Civil War. More than one hundred of his maps were used (4). Additionally, many of his maps made it into Civil War Atlases. Hotchkiss died in January 1899 after a successful post-war career as a geologist and engineer (2).

Anyone interested in the Civil War should go to the remaining sites and walk the fields. Seeing the geography gives one a better understanding of the battles. While walking the fields, think about the importance of the geography, reliable maps and the topographical engineers’ role in achieving success. Jedediah Hotchkiss was one of several topographical engineers from the South as well as the North, who not only succeeded in aiding victory, but also reinforced the importance of understanding the ground which an army was to fight upon. His efforts under Jackson and his contributions to accurate mapping after the conflict is why he is appreciated by both historians and geographers.

Sources:

- (1) <http://www.topogs.org/History.htm>
- (2) www.civilwar.org/historyclassroom/hc_hotchkissbio.htm
- (3) Time Life Books. *Illustrated Atlas of the Civil War*. Time Life Books. Alexandria, Virginia. Pages 24 & 100
- (4) Miller, William J. *Great Maps of the Civil War*. Rutledge Hill Press, Nashville Tennessee. Pages 3 & 21
- (5) <http://www.civilwarhome.com/hotchkissbio.htm>

What Your Students Should Know to be Geographically Literate...

Many of you are aware of the “Five Themes of Geography” from the early ‘90’s. After decades of inadequate geography preparation for educators, the “Five Themes” enabled educators to better understand the overarching concepts of geography education, which, in turn, enabled educators to better teach geography in the classroom. As the movement for better prepared geography educators, the “Five Themes” evolved into the “Six Essential Elements of Geography”, which better defines the concepts of geography for the twenty-first century student and citizen. The following information provides a brief outline of grade-specific geography knowledge and concepts, as noted in the National Geography Standards and the Indiana Academic Standards and summarized from the “Pathways Toward World Literacy: A Scope and Sequence in Geographic Education K-12” brochure. If you would like a copy of the fold-up, poster brochure, please, contact the GENI office at 317.274.8879 or geni@iupui.edu.



Five Themes of Geography

Location
Place
Human/Environment Interaction
Regions
Movement

Six Essential Elements of Geography

The World in Spatial Terms
Places and Regions
Physical Systems
Human Systems
Environment and Society
Uses of Geography



Kindergarten through Grade One: Personal and Local

The World in Spatial Terms

- Personal directions: left/right, up/down, front/back
- Location (absolute location) in the home, school, classroom
- What maps are for
- Location and names of places in the school and neighborhood
- Understand relative location: near/far, above/below
- Know that there are continents and oceans and identify those on a map or globe

Places and Regions

- Physical features (concepts): mountains, hills, plains, islands, oceans

- Human features (concepts): cities, buildings, farms, roads, railroads

- Descriptions of places both present and past

Physical Systems

- Understand what is weather
- Impact of weather on everyday life
- Understand that there are seasons

Human Systems

- Cultural items of the local community and other communities: food, clothing, housing, sports, games, holidays
- Land use in the local community
- Places where people work
- Transportation networks in daily lives

Environment and Society

- Introduction to resources: food from farms, wood from

Grades Two to Three: *Personal, Local and State
The World in Spatial Terms*

- The globe as a model of Earth: hemispheres, poles, equator
- Map elements: title, scale, symbols, legend, grid, cardinal and intermediate directions
- Spatial elements of point, line, and area
- Relative and absolute locations
- Location and distribution of physical and human features
- Local and state maps and atlases
- Major cities of the state

Places and Regions

- Concept of uniform regions
- Physical and human characteristics of neighborhood and community
- Similarities and differences of local places and regions with other places and regions
- Changes in places and regions over time

Physical Systems

- Basic components of Earth's physical systems: landforms, water, climate and weather, erosion, deposition
- Concept of ecosystem
- Earth-Sun relationships: day/night, length of day

- Introduction to the hydrologic cycle

Human Systems

- Patterns of cultural traits: language, religion, family structure
- Patterns of land use and economic activity in the community: agricultural, industrial, commercial, residential, educational, recreational
- Political units and hierarchies: differences between community, city, county, state, country
- Transportation and communication networks
- Population distribution
- Human settlement patterns: rural, urban, suburban
- Changes in culture: spread of ideas, goods, people
- **Environment and Society**
- Physical environments influence human activities: availability of water, climate, fertility of soil
- Human activities change Earth: agriculture, transportation, industry
- Earth's natural resources: minerals, air, water, land
- Environmental issues: solid waste, water quality
- **Uses of Geography**
- Physical and human characteristics of places change over time
- Spatial dimensions of geographical problems

Grades Four to Five: *State, United States and
World*

The World in Spatial Terms

- Location of major human and physical features on Earth
- Physical/political maps of the state and the United States
- Latitude, longitude, and the global grid
- Time zones
- Mental maps
- Spatial graphics: aerial photographs, satellite images, various map types and atlases
- Major countries of the world
- Major cities of the state, United States, and the world

Places and Regions

- Physical and human characteristics of places and regions within the state and the United States
- Changes in places and regions over time
- Perceptions of places and regions
- Regions defined by multiple criteria

Physical Systems

- Physical processes shape Earth's features and patterns: weathering, erosion, deposition, plate tectonics
- Concept of an ecosystem at different scales
- Earth-Sun relationships: rotation – day/night, revolution – seasons/energy balance/tides
- Climate types
- Hydrologic cycle: precipitation, evaporation, condensation
- Extreme natural events: floods, tornados, hurricanes, etc.

Human Systems

- Patterns and processes of migration past and present: push/pull, diffusion
- Population characteristics of the state and the United States: density, distribution, growth rates
- Human settlement patterns and land use
- Cultural regions: religion, language, ethnicity
- Types of economic activity: primary, secondary, tertiary
- Development of transportation and communication networks
- Intrastate and interstate commerce

Environment and Society

- Human modification of the physical environment: construction of dams, strip mining, draining wetlands
- Human adaptation to the physical environment: use of air conditioning, irrigation, agriculture
- Renewable (land/forests/water) and non-renewable (minerals, fossil fuels) resources
- Impact of extreme natural events on the human and physical environment: earthquakes, tornadoes, floods, hurricanes, volcanic eruptions, mudslides
- Environmental issues: water supply, air quality, solid waste

Uses of Geography

- Influences of physical and human features on historical events
- Interaction of physical and human systems and influence on current and future conditions

Grades Six to Eight: *United States and World Regions*

The World in Spatial Terms

- Distribution of major human and physical features at country and global scales
- Map types: transportation, topographic, navigational, thematic
- Locational (geospatial) technology: GPS (global positioning systems) and GIS (geographic information systems)
- Expanding mental maps
- Map projections: size, shape, distance, and direction

Places and Regions

- Physical and human characteristics of places and regions in the United States and the world
- Factors that influence people's perceptions of places and regions
- Changes in places and regions over time
- How culture affects places and regions
- Concepts of formal, functional, and perceptual regions
- World political regions
- World cultural regions

Physical Systems

- Physical processes shape patterns in the physical environment
- Biomes: major ecological communities such as tropical rain forests, desert, grassland
- Global patterns of wind and water
- River systems of the United States and the world
- Types of precipitation: orographic, cyclonic, convective
- Implications of the hydrologic cycle: hydrogeology, surface water, drought, floods, watersheds
- Causes and patterns of extreme natural events

Human Systems

- Population density, distribution, and growth rates

- Demographic transition of a country
- Human migration patterns: forced and voluntary
- Types of patterns of human settlement: villages to megacities
- Internal structure of cities
- Cities as providers of goods and services
- Processes of cultural diffusion
- Patterns of culture in the United States and the world: religion, language, ethnicity, economy
- Regional development in the United States and the World
- Transportation and communication networks in the United States and the World
- Types and patterns of economic activity: primary, secondary, tertiary, quaternary
- Global economic interdependence: trade, commerce, communication
- Territorial dispute and conflict

Environment and Society

- Effects of human modification of the physical environment: deforestation, desertification, urbanization, global warming
- Impact of natural and technological hazards/disasters on the human
- Perceptions of and reactions to extreme natural events
- Limits and opportunities of the physical environment for human activity
- World patterns of resource distribution and utilization
- Changes in the importance of energy resources
- Watershed management
- Environmental issues

Uses of Geography

- Effects of physical and human geographic factors on major historic events
- Role of multiple points of view in contemporary geographic policies and issues

HELP GIVE GEOGRAPHY A VOICE!

World Geography provides the perfect platform for meeting the challenges facing today's student, who will become tomorrow's twenty-first century, global leader. Contact your state and local government representatives and let them know geography is important in Indiana's K-12 curriculum.

Governor Mitch Daniels recently announced the new Indiana Education Roundtable members. Share your thoughts and suggestions with them on how Indiana can produce more globally responsible citizens. For a list of the 2005-2006 Roundtable members, visit <http://www.edroundtable.state.in.us/pdf/2005%20membership%20list.pdf>

Grades Nine to Twelve: World

The World in Spatial Terms

- Map, globe, and atlas use
- Expanding locational (geospatial) technology: GPS, GIS, satellite imagery/remote sensing
- Map projections for specific applications
- Location/allocation studies
- Mental maps and spatial relationships

Places and Regions

- Physical and human processes shape places and regions
- The importance of places and regions to individual and social identity
- Changes in places and regions over time
- Interdependence of places and regions
- Political and historical characteristics of regions
- Critical issues and problems of places and regions
- Regional analysis of geographic issues and questions

Physical Systems

- Components of Earth's physical system
- Plate tectonics/continental drift
- World patterns of extreme events
- Global ocean and atmospheric systems
- World climate regions
- World patterns of biodiversity
- Inter-annual climate variation – El Nino Southern Oscillation

Human Systems

- Population characteristics by world regions, country, and regions within countries

- Demographic transition
- Impact of human migration
- Changes in human settlement patterns over time
- Internal structures of cities in developed and developing countries
- Convergence and divergence of cultures
- Economic development by world regions, country, and regions within countries
- Global economic interdependence: regional specialization, trade, transnationalism, multinationals
- Patterns of global power and influence: NATO, United Nations, European Union
- Cooperation and conflict in the division and control of Earth's surface

Environment and Society

- Global effects of human modification of the physical environment
- Global effects on the human environment by changes in the physical environment
- Impacts of major natural hazards/disasters on humans
- Impacts of technological hazards/disasters on the physical environment
- World patterns of resource distribution and utilization
- Use and sustainability of resources
- Environmental issues

Uses of Geography

- Influence of geographical features on the evolution of significant historic events and movements
- Local, regional, and world policies and problems with spatial dimensions



WEEKEND WORKSHOP 2006

Next spring, GENI will once again present a “Basic Geography” weekend workshop. The dates are March 17-19, 2006, hosted by Indiana State University’s department of Geography, Geology and Anthropology and the Center for Science Education on their campus. Tentatively, the workshop will begin at 4:30pm on Friday and last until 12:00 noon on Sunday. Graduate credits and Professional Growth Points will be available. Watch the GENI website and next newsletter for details and registration info.



Take advantage of Indiana's fall season. Get your students outside and engaged in their local environment with their "Geography Goggles" on!!!

Suggested activities:

Cardinal Directions—"Flight Path" lesson for younger students, "Schoolyard Compass" activities for older students.

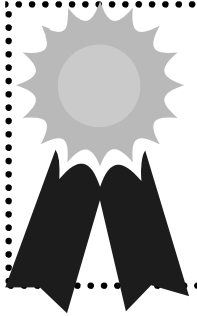
Mapping—start with the classroom, the school building, then the school grounds. Map your route to school each day.

Scavenger Hunt—incorporate compasses and GPS units if possible.

Environment—simply explore your school grounds or a nearby park facility. Discuss habitats and climate. Set up the "Critters R Us" Activity to observe and learn about the wildlife.



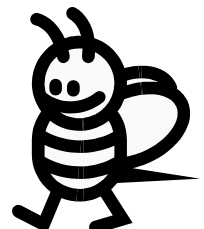
Visit the GENI website at www.iupui.edu/~geni for great lesson plans! We would love to hear some of your great ideas as well, for outdoor activities to get kids excited about geography! Please share them with us at geni@iupui.edu.



Know someone who works hard at integrating geography into their curriculum? Who excites kids about understanding the global environment in which we live? Help us give them the recognition they deserve. Nominate outstanding teachers of geography, all grades, and join us in celebrating their achievements next March at the annual ICSS conference! Visit the GENI website for nominating information. Deadline for nominations will be late January.

REGISTER FOR THE 2006 GEOGRAPHIC BEE!

If your school has any of the grades four through eight, you are eligible for the 2006 National Geographic Bee! It only requires a registration fee of \$50 and a teacher to coordinate your School Competition. For registration information, simply visit the NGS site at www.nationalgeographic.com/geographybee. The National Geographic will provide all the necessary materials. GENI will host the State-Level Competition on March 31, 2006 at IUPUI for the top one hundred qualifying students in Indiana. The National-Level Competition will be held at the NGS Headquarters in Washington, DC in late May. The winning student from each state and their teacher is provided an expense-paid trip to the National Competition. Give your students an opportunity to win some great prizes, including a college scholarship. Get registered by October 15th!



Cook Up a Country (or City)

Original by Janis Coffman, adapted by: Melissa S. Martin

Purpose: The purpose of this activity is for students to research an individual country and create a “recipe” with the information they found.

Estimated Time: 1 – 2 class periods

Grade Level: 4-8, easily adaptable



National Geography Standards Addressed:

- 4: The physical and human characteristics of places.
- 7: The physical processes that shape the patterns of Earth’s surface.

Indiana Social Studies Addressed:

- 6.3.4: Describe major physical characteristics of regions in Europe and the Americas.
- 6.3.5: Describe major cultural characteristics of regions in Europe and the Western Hemisphere.
- 7.3.4: Name and locate major regions, mountain ranges, river systems, countries, and cities in Africa, Asia and the South-west Pacific.
- 7.3.5: Identify and compare physical and cultural sub-regions of Africa, Asia, and the Southwest Pacific.

Objectives: Upon completion of this lesson/activity, students will be able to...

1. use their research skills to find pertinent information.
2. create a “recipe” using the information they have found.
3. become more familiar with an individual country.

Materials Required:

- list of countries
- a few recipe books
- colored pencils, crayons, markers, etc.
- construction paper (optional)
- research materials...almanacs, encyclopedia, gazetteer, Internet, and other materials
- recipe cards or index cards or sheets of paper (teacher choice)

Procedures:

1. Have a “lottery drawing” of countries to determine the assignment of countries (cities or counties).
2. Students should look at recipe books to get an idea how to write their country recipe.
3. Remind students the idea of a recipe. Be sure to include ingredients, mixing and preparation instructions, baking or cooking time, and how many it serves.
4. Allow time for research.
5. Students should put their recipe on a card.
6. Artwork, maps, or pictures may be included.

Helpful hints or possible requirements:

- Use latitude and longitude for baking time.
- Climate
- Religions and population
- Seas, oceans, bays, etc.
- Mountains and other landforms
- Crops
- Capitol and large cities
- Rivers
- Man-Made features such as, The Great Wall of China, Eiffel Tower, Pyramids.
- A great way to express population is to tell how many people the recipe will serve.

Assessment:

Recipes will be graded on:

Ideas, accuracy, research, creativity and neatness

Adaptations/Extensions:

Create a recipe for various cities in one country.

Create State recipes.

For fourth grade, create counties in Indiana recipes using “Indiana in Maps: Geographic Perspectives of the Hoosier State.” (Contact the GENI office for information.)

Use a computer program such as *Print Shop* to create the recipes.

Incorporate Clip art.

Make a “School” or community recipe.

Have students omit what/where the recipe is for and have the other students (could use another class) guess the location from the recipe “clues” given.

Relevant Websites:

CIA World Fact Book

<http://www.odci.gov/cia/publications/factbook/>

Information Please Almanac

<http://www.infoplease.com/world.html>

Fact Monster

<http://www.factmonster.com/>



Global Gazetteer


<http://www.calle.com/world/>

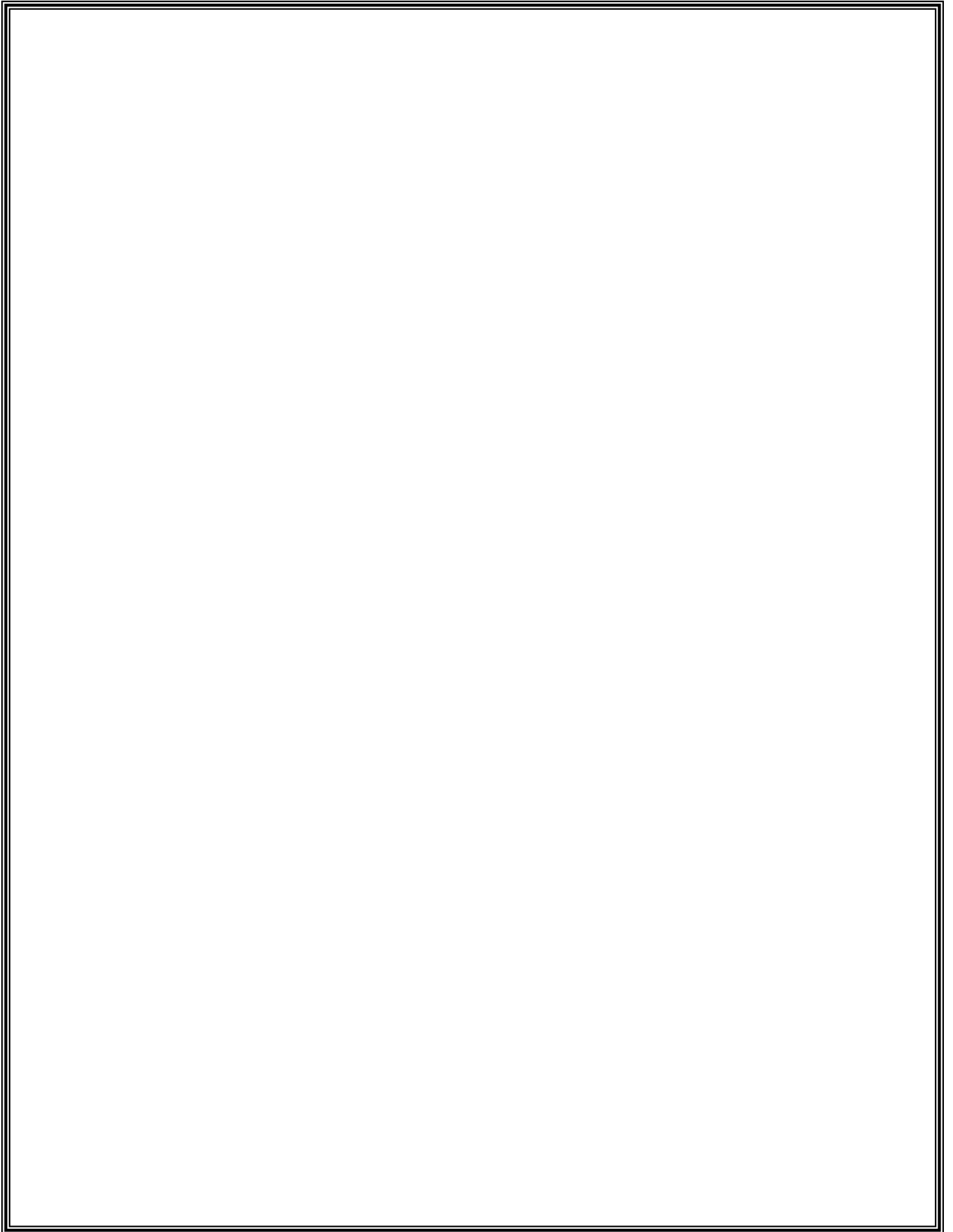
World Gazetteer

<http://www.world-gazetteer.com/home.htm>

Sample recipes:

<p>RECIPE FOR:</p> <p>2 cups sand 1 heap of Himalaya Mountains Dash of Buddhism, to flavor A sprinkle of Confucious, for color 1 pound of British influence</p> <p><i>Mix ingredients well. Add piece of Calcutta and Bombay. Stir in 1 pint of the Ganges River. Cook in the New Delhi at a moderate, sub-tropical temperature. Bake until done. Cool with a winter monsoon until ready to serve. This recipe serves 1,080,264,388 (7/05 est.).</i></p>	<p>India</p>  
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<p>RECIPE FOR:</p> <p>1 pint of Tippecanoe River 8 oz. of Lake Shafer 2 cups of rich Seafield soil 1 pound each of soybeans and seed corn Pinch of excitement from the Hoosier Hurricane roller coaster Top with 1 county court house</p> <p><i>Mix ingredients well. Preheat oven at a humid continental climate. Add pieces of ancient artifacts from Ski Island. Throw in a few hogs for flavor. Bake at 40° North and 86° West. Cool with inches of winter snow and ice. This recipe will serve 5,500.</i></p>	<p>Monticello, Indiana</p>  <p>dash tourism 8 oz. Lake Freeman stir in 1 tornado from 1974</p>
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IT'S BACK!!!
GeoFest 2005
Brown County State Park
Oct. 14-15

(See page 15)

New Course Update

(See page 1)