Teaching with Maps: Lesson Plan Guide from the GIS Research & Map Collection, Ball State University Libraries
THE WAY IT SHOULD BE...
NO MICHIGAN.
Each Orange dot represents a Texas gun owner
THE MIDDLE EAST

ISRAEL
SYRIA
EGYPT
JORDAN
SAUDI ARABIA
IRAN

SECY GATES MEETING WITH ISRAEL'S MINISTER OF DEFENSE EHUD BARAK

LIVE DESK
THE UNITED SWEETS OF AMERICA
There are more people living inside this circle than outside of it.
Eye of the Beholder: Countries with Miss Universe Pageant Winners
1952-2013

Miss Universe began in 1952 and was won by a contestant from Finland.

International beauty contests promote and export a white, Western standard of beauty. Globalization is accelerating the adoption of these standards around the world. As new governments seek global economic integration, they often signal this by jumping on the Western beauty bandwagon. The proliferation of beauty contests in the former Soviet bloc countries is particularly striking.

The pageant had only 26 contestants in 1953 but 89 contestants in 2011 and 2012. The youngest Miss Universe winner was 17, and the oldest was 20.
UNIVERSITY ISSUES THOUSANDS OF CITATIONS

From Jan. 1, 2013, to April 1, 2014, the university issued a total of 28,185 parking tickets. This map shows how many tickets were issued in spots throughout campus during this time period.

Violation fees for parking range from $20 to $135. A hold appears on a student’s Bursar account until they pay the ticket. Vehicles that have five or more unpaid parking tickets will be booted or towed from campus. It costs $30 to remove the vehicle’s boot.

SOURCE: Parking Services

ON GRAPHIC: MICHAEL BOHNLEIN, KAITLIN LANGE
Obesity in America

Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have an adverse effect on health, leading to reduced life expectancy and/or increased health problems. Body mass index (BMI), a measurement which compares weight and height, defines people as overweight (pre-obese) if their BMI is between 25 kg/m² and 30 kg/m², and obese when it is greater than 30 kg/m².

Obesity increases the likelihood of various diseases, particularly heart disease, type 2 diabetes, breathing difficulties during sleep, certain types of cancer, and osteoarthritis. Obesity is most commonly caused by a combination of excessive dietary calories, lack of physical activity, and genetic susceptibility, although a few cases are caused primarily by genes, endocrine disorders, medications or psychiatric illness. Evidence to support the view that some obese people eat little yet gain weight due to a slow metabolism is limited; on average obese people have a greater energy expenditure than their thinner counterparts due to the energy required to maintain an increased body mass.

Dieting and regular physical exercise are the mainstays of treatment for obesity. Moreover, it is important to improve diet quality by reducing the consumption of energy-dense foods such as those high in fat and sugar, and by increasing the intake of dietary fiber. To supplement this, or in case of failure, anti-obesity drugs may be taken to reduce appetite or inhibit fat absorption. In severe cases, surgery is performed or an intragastric balloon is placed to reduce stomach volume and/or bowel length, leading to earlier satiation and reduced ability to absorb nutrients from food.

Obesity is a leading preventable cause of death worldwide, with increasing prevalence in adults and children, and authorities view it as one of the most serious public health problems of the 21st century. Obesity is stigmatized in much of the modern world (particularly in the Western world), though it was widely perceived as a symbol of wealth and fertility at other times in history, and still is in some parts of the world.

The per capita dietary energy supply varies markedly between different regions and countries. It has also changed significantly over time. From the early 1970s to the late 1990s the average calories available per person per day (the amount of food bought) has increased in all parts of the world except Eastern Europe. The United States had the highest availability with 3,554 calories per person in 1996. This increased further in 2003 to 3,754. During the late 1990s Europeans had 3,364 calories per person, in the developing areas of Asia there were 2,648 calories per person, and in sub-Saharan Africa people had 2,176 calories per person. Total calorie consumption has been found to be related to obesity.
Why are maps important in teaching?

The 2006 National Geographic-Roper *Survey of Geographic Literacy* delivered some bad news about the basic geographic skills of young Americans. “Young Americans" aged 18 to 24 from the United States were tested on geographic knowledge. Respondents answered about half of all survey questions correctly.

- 63% of the students could not find Iraq on a map of the Middle East.
- 75% could not find Iran or Israel on a map of the Middle East.
- Nine in ten could not find Afghanistan on a map of Asia.
- Half of the young Americans could not find the state of New York on a map.
- In spite of months of media coverage of Hurricane Katrina, 33% could not find Louisiana on a map of the United States.
Australia was first settled by Aboriginal peoples from the north between 50,000 and 70,000 years ago. It is the largest landmass in the Pacific Ocean. New Zealand is about 995 mi. (1,600 km) to the southeast. Thousands of smaller islands are dotted through the Pacific, including Fiji, Tonga, and the Solomon Islands.

The first Aboriginal settlement arrived in the Kakadu region about 40,000 years ago. Kakadu became a national park in 1975 and has 5,000 Aboriginal rock paintings.

The first flying doctor service began in 1928 when a De Havilland DH 50 flew to Julia Creek. Today, the Royal Flying Doctor Service of Australia has 56 aircraft serving isolated areas.

The first settlement in Australia for free people, rather than convicts and soldiers, was Perth. It was founded by British settlers in 1829 as the capital of the Swan River Colony.

Olap were first discovered in Coober Pedy in 1915. Today, many residents live in underground homes there to escape the searing summer heat.

The first camel in Australia was called Harry. He traveled from Tenerife in the Canary Islands to Port Adelaide in 1849.

The first bullfight in Australia was held at the Royal Show in Sydney in 1859.

The first full-length feature film to be made was The Story of the Kelly Gang, which premiered at the Athenaeum Hall, Melbourne, in 1906.
Students learn about the elements of maps using interesting examples: Every map should include a title, a legend or key, a scale, and a directional indicator. Use this map of Narnia from the GRMC as an example.

(Narnia, GRMC, Ball State University Libraries).
Maps are an excellent resource for teaching history. The GRMC has a collection of both historic and historical maps that can be used for teaching about world, regional, and United States history. This map shows battles of the Civil War, and the GRMC also includes World War-, Korean War-, and Vietnam-era maps that can be used to help students visualize history.

(Battles of the Civil War map, GRMC, Ball State University Libraries).
Delaware Settlements Along the White River
Introduce students to the study of United States history or geography by displaying this map of current NFL teams. Ask students to take turns naming a city shown on the map. Then discuss with the class the team’s nicknames and how those names can sometimes reveal that city’s history. This discussion stimulates interest in the study of United States history and geography:

- Green Bay Packers (meat packing industry);
- Minnesota Vikings (Scandinavian history of the region);
- New Orleans Saints (French Acadian influence in Louisiana);
- Tampa Bay Buccaneers (Spanish pirates in the region);
- San Francisco 49ers (gold rush).

Discuss how the names fit original cities like the Baltimore Colts (Maryland horse racing). Sometimes the names can be combined with NBA teams like the Bears and Bulls of Chicago (Chicago market). Again account for movement—Los Angeles Lakers (originally from Minnesota) and the Utah Jazz (originally in New Orleans). Which cities have NFL and NBA teams? What does that reveal about those cities?
Mapping the Underground Railroad

Working in groups or individually, ask students to study a physical map of the eastern part of the United States during the time of slavery. Analyzing elevation and terrain on the map, ask students to create a map of a route that a runaway slave could travel from a destination in the south to a safe haven in the north. Discuss the routes chosen by the students as a group. Then study a map of the actual Underground Railroad system available from the GRMC.

(Freedom's Tracks: A Map of the Underground Railroad, GRMC, Ball State University Libraries).
The *Titanic Reference Map* in the GRMC shows transatlantic passenger steamship routes, the *Titanic* disaster site, the wreckage search site, other shipwreck sites, iceberg occurrence areas/graph, major ocean currents, and locations of *Titanic* memorials. The map also includes deck plans, a cutaway view of the *Titanic*, a comparative size diagram, and portraits with biographical sketches of selected passengers. This map offers a wealth of resources for teachers of numerous subjects.
GEOGRAPHY
Using the political map of Canada from the GRMC, students complete the Canada Map Scavenger Hunt worksheet, filling in the name of the province or territory described in the questions. A copy of the worksheet is available as “Canada scavenger” at (Canada Political/Politique map, GRMC, Ball State University Libraries).
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Brainstorming
Europe
Categories of Europe

Countries of Europe

Capital cities of Europe

Famous people from Europe from history

Famous people from Europe today

Landmarks/places to visit

Movies that take place in Europe

Music groups/singers from Europe

Books/fairy tales from Europe

Languages spoken in Europe

Past or present kings and queens of Europe
After teaching students to recognize the basic elements of maps and map reading, ask students to create a map of their bedroom at home—using a title, directional indicator or compass rose, scale, and a legend or key. Students could also create a treasure map with an “X” marking the buried treasure.
Cartography: Creating Custom Maps

After teaching the history of a state, country, or continent, teachers could ask individual students or groups to create a map documenting some of the events studied.

This is a portion of a map of Indiana history from the GRMC created by a sixth-grade class from Liberty, Indiana. A similar map could be created today using computer clip art images and software. Other maps of native birds and wildlife, U.S. folklore, famous European landmarks, or other topics could also be created to serve as a culminating final project.

(Indiana, GRMC, Ball State University Libraries).
RAINY HIPSTERS
MOUNTAINS POTATOES
and MEADOWS COW ANIMALS
and maybe some COW
MORMON SNOW
HOT MEXICO CO-ISH
SERIAL KILLERS
OBESITY EPIDEMIC
PEOPLE DRUNK
STEAK DRUNK
LAKE FABULOUS
RICH CHEESE
HORSES "MOONSHINE"
CHICAGO COWS COWS
BEACHES
REBELS,
Y’ALL
LIFE OF THE PARTY
SIR & YES
How I See the United States
The Art of Cartography: Hand-Drawn Maps
Big Open Space
This National Geographic map, *Africa Threatened*, details the plight of some of the vulnerable and endangered species in Africa. The map shows the habitats, vegetation areas, and protected areas in Africa.

Thirteen animals are detailed as case studies. This map could be used when studying habitat destruction or in connection with special reports on the specific threatened animals. Students could use the map to follow along with an article from National Geographic magazine, “Down the Zambezi,” in which Paul Theroux travels through six countries by boat and over land, noting the animals he observes.
Using the map of South America from the GRMC, *Amazonia: A World Resource at Risk*, students individually or in groups create a picture book telling the “story” of the Amazon rain forest using information and graphics provided on the map.

(*Amazonia: A World Resource at Risk* map, GRMC, Ball State University Libraries).
This map of Indiana shows the hometowns of authors from the state. Students could create a similar map of the United States showing the hometowns of authors or the actual settings of novels read by the class over the semester or year. This map could also be recreated using the hometowns of prominent people from the state in other fields, such as government, sports, or industry.

(Literary Map of Indiana, GRMC, Ball State University Libraries).
Imaginary Places...

This map featuring the travels of the character Sherlock Holmes and the map of Winnie the Pooh’s “Hundred Aker Wood” are from *The Atlas of Fantasy*. This atlas features maps of numerous imaginary settings from historic and popular literature and is available in the Atlas Collection.
Popular Fiction on the Map

*The Atlas of Middle Earth* is available in the University Libraries’ Atlas Collection and features maps from J.R.R. Tolkien’s books. *The Map of Beleriand and the Lands to the North* and *The Map of Tolkien’s Middle-Earth* are available in the GRMC.
Map of Panem

Hunger Games
SPORTS

America
for everyone

In the U.S., both a male and female sport, 1976s boom in youth soccer taught girls to seek equal opportunity laws opened new horizons for them at the college level. In 1991 the U.S. first Women s World Cup, and repeated in 1999, a strong showing in World Cup 2002, the U.S. are also on the rise, although on any given day, Mexico or Canada—or smaller such as Guatemala or Costa Rica—can humble it neighbor. Soccer is the great equalizer.

Europe
Lure of the rich and famous

Birthplace of the modern game, England helped popularize soccer worldwide, in 1966, in its home soil, it won its single World Cup. Today, most global soccer revenue comes from Europe, home to the world s richest professional clubs. Hosted by Germany, the 2006 World Cup will bring together the best national teams in the world, who survived a rigorous, two-year competition to qualify.

Asia
A growing passion

Over the past two decades, a heated soccer rivalry among Japan, China, and South Korea—has stirred soccer passions across the continent. Not all countries share the fervor; however. India and Pakistan prefer other sports, especially cricket. Meanwhile, oil-rich Persian Gulf states such as Saudi Arabia, Kuwait, and Qatar are investing huge sums of money in their programs, hiring the best coaches and players money can buy.
Black Diamonds: Negro League Baseball Teams, 1920-1949
Horsepower to Hysteria: Indiana Sports History

Save the map as a JPEG in order to customize it in PowerPoint or PhotoShop.
States I visited:

States with high teen pregnancy rates:

States with 25% or more high school dropouts
Plotter Printing and Laminating
Trailblazer:
The Life of Marshall “Major” Taylor
by Miss McBride’s class

Ernie Pyle:
The Story of G.I. Joe’s Friend

http://www.bookemon.com/
Toy Imports
Toy Exports

http://www.worldmapper.org
GRMC Blog
www.bsumaps.blogspot.com
Thanks for visiting the University Libraries.

The End.