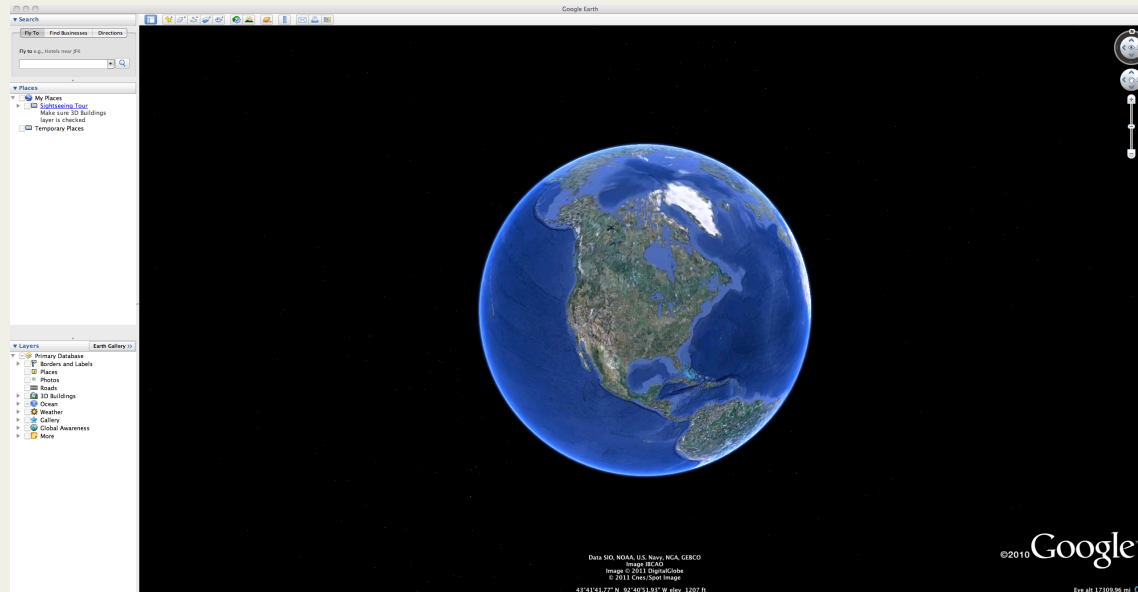


Welcome to...



Using Google Earth in the Classroom

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About the Presenter

Michael Hutchison is Social Studies Department chairperson at Lincoln High School, Vincennes, Indiana. He also serves as a educational consultant and author for Social Studies School Service, PBS, McGraw-Hill, and other organizations. He is a “STAR” educator for Discovery Education, and a member of the Discovery Education Indiana Leadership Council.

Currently in his 34th year in the classroom, he is president of the Board of Directors of the Indiana Computer Educators, as well as a moderator for the NCSS Network, listserv moderator for the Indiana Council for the Social Studies, as well as an editor of the H-HIGH-S secondary social studies teacher listserv. (You can see more about me at my webpage, located at <http://www.vcsc.k12.in.us/staff/mhutch/ice2000>).

What is Google Earth?

- A virtual globe, map, and geographic information program
- Created by Keyhole, Inc.
- Keyhole was acquired by Google in 2004
- Superimposition of images obtained by satellite imagery, aerial photography, and GIS over a 3-D globe
- Google Earth is *free*

How can I get a copy of Google Earth?

- Go to <http://earth.google.com>
- Click the “Download” button
- Google Earth will download and allow you to install it on your computer
- Google Earth is available for both Mac and PC

First things kids (and adults) do with Google Earth

- “Fly” to their house or apartment
- “Fly” to their school or place of work
- Look for famous landmarks (US Capitol, Eiffel Tower, Taj Mahal, etc.)

Using Google Earth in the Classroom

- Create a tour:
http://earth.google.com/userguide/v5/ug_touringplaces.html
- Ask students to find latitude and longitude
- Ask students to find a location if you give them latitude and longitude
- Ask them to use Google Earth ruler to find distance
- And much, much more

Sample Project Development

- Google Earth lesson on World War II
- Typical project I would create and use with an 11th grade US History class or 10th grade World History class
- Unit includes students locating major cities with yellow place markers, historical locations with blue place markers, as well as using the Google Earth Polygon, Line, and Ruler tools

Objectives: What I want students to learn

- Understand the causes and alliances of World War II
- Identify locations of the main battles in the European Theater
- Recognize human, territorial, and material costs of the war
- Identify political and military leaders from the war era and make conclusions about their accomplishments
- Make conclusions on the impact of the war, how it led to the Cold War, and shaped world history for the remainder of the 20th Century.

Meeting Indiana Standards

- This lesson meets the following Indiana standards:
- US History: USH 5.1, 5.2, 5.3
- World History: WH 8.3, 8.4, 8.5

Teacher Preparation for Project

- Teacher can create a .kmz (Keyhole Mark-up Language zipped) file including place markers
- Teacher created student page and rubric page distributed to students
- Student page includes an “open-ended” question for students to answer
- Students can either write an essay, or develop a presentation to answer question

Differentiated Instruction

- Allow for heterogeneous grouping
- Give students links to online dictionaries
- Assign lower ability students task of locating place markers and not complete open ended project question
- Require upper-level students task of creating their own historical markers

Student preparation

- Students should have some knowledge of World War II and basic idea of the course of the war
- Students should know how to create place markers, move them, and possibly create historic markers (with primary and secondary source information)
- Students should know how to save to a .kmz file

Other Project Notes

- Students should know how to save their work as a .kmz file (or the teacher should be ready to assist)
- Time needed to complete “streamlined” version of typical project, two (50 minute) class periods
- Completing expanded project may take longer
- Teacher may wish to use “extension activities” with upper-level or more motivated students

Typical “Student Page”

World War II Student Page

Before beginning this lesson, make sure that you're familiar with the different features of Google Earth and how they work. Be sure to consult the "Tips for Using Google Earth" handout if you have any problems.

Complete the following tasks:

1. Place all yellow markers in their appropriate locations on the globe (Note: you may wish to refer to your textbook in order to locate some of the points.)
2. Using the Google Earth polygon tool, shade the nations shown on the map that were members of the Axis Powers red.
3. Using the Google Earth polygon tool, shade the nations shown on the map that were members of the Allies blue.
4. Using the Google Earth line tool, draw a line showing the farthest extent of the German Eastern front during World War II
5. Using a Google Earth "Exclamation Point" marker (it looks like a red triangle with an exclamation point in the middle), mark the nation that was partitioned in the 1938 Munich Conference.
6. Place the Google Earth "star" marker on the nation that was invaded by Germany on September 1, 1939, beginning World War II.
7. Using the Google Earth polygon tool, shade the largest area on the map east of Germany controlled by the Nazis during World War II. Shade this area yellow.

8. **Final Project:** As a group, provide an answer to the following question:

Was World War II fought more as a clash of two political ideals (those who supported Fascism and those who opposed it), or as a war between the Axis and Allies to extend their spheres of influence throughout Europe?

After discussing and coming to an agreement on your position on this question, pick the five (5) markers that you think best support your answer, and place them on the map. (Note: some markers do not belong in any specific geographic location. Use your best judgment to decide where to put them; there aren't any wrong placements for these.) Prepare a five-minute presentation in which you argue for, and give evidence to support, your position. Make sure to explain how each of the markers you've selected backs up your argument. Submit the Google Earth [kml](#) file that you create to your teacher for evaluation.

- Tasks are clearly labeled
- Try to use several “Google Earth tools”
- Have students work cooperatively on an open-ended question
- Students can present as a group or create a multimedia presentation

Typical Rubric page

World War II Activity Rubric					
Criteria	Level 1 (0-5)	Level 2 (6-10)	Level 3 (11-15)	Level 4 (16-20)	Student Score
Tasks:	Group did not complete most of the many tasks; assignments, and some done incorrectly	Group did not complete some assignments, and some tasks done incorrectly	Group did all the assignments and tasks, and completed them all correctly	Group did all the related tasks, and completed them all correctly	
Markers:	Several markers not placed; several placed incorrectly	A few markers not placed; some placed correctly	All markers placed correctly	All markers placed correctly	
Research:	Little evidence of research; zero or one original markers created	Some evidence of research; only two original markers created	Clear evidence of research; all original markers created	Strong evidence of considerable research; all original markers created	
Cooperation:	Group followed directions poorly and did not work together	Group showed some difficulty in following directions or cooperating	Group followed directions and cooperated for the most part	Group clearly followed directions and cooperated superbly	
Final Presentation:	Group did not address the question, and made inadequate use of markers to back up their argument	Group addressed the question, and made some use of markers to back up their argument	Group addressed the question, and made good use of markers to back up their argument	Group addressed the question, and made excellent use of markers to back up their argument	

Teacher created items:					
Final Group Score:					

- Rubric is geared toward learning historical concepts and less on software
- Rubric should be specific and target specific skills to be addressed
- Allow for specific criteria the teacher wants to add to the rubric

How to contact me

- E-mail: hutchisonm@vcsc.k12.in.us
- Twitter: twitter.com/hutchisonm
- ICE web page:
http://www.iceindiana.org/index.php?option=com_joomlaconnect_ce&Itemid=96&task=showPage&page_id=8

Some Google Earth links

- Google Earth for Educators:
<http://sitescontent.google.com/google-earth-for-educators/>
- 50 Exciting Google Earth Ideas for the Classroom:
<http://www.associatesdegree.com/2010/03/14/google-earth-for-educators-50-exciting-ideas-for-the-classroom/>
- Google Earth in the Classroom:
http://livebinders.com/play/play_or_edit/54477

More Links...

- “Ditching the Textbook”:
<http://www.vcsc.k12.in.us/staff/mhutchison/digital/> (Contains various downloadable sample files)
- Integrating Discovery Streaming files into Google Earth:
http://help09.discoveryeducation.com//assets/support/DEstreaminginaction_GoogleEarth.pdf

Social Studies School Service links

- US History Google Earth lessons:
[http://www.socialstudies.com/c/product.html?
record@TF42779+s@KwxmLRGBa22hQ](http://www.socialstudies.com/c/product.html?record@TF42779+s@KwxmLRGBa22hQ)
- World History Google Earth lessons:
[http://www.socialstudies.com/c/product.html?
nocache@17+s@KwxmLRGBa22hQ
+record@SS349696+s@KwxmLRGBa22hQ](http://www.socialstudies.com/c/product.html?nocache@17+s@KwxmLRGBa22hQ+record@SS349696+s@KwxmLRGBa22hQ)