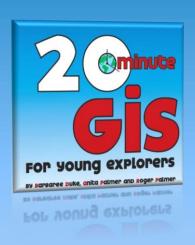
20 Minute GIS for Young Explorers

with Barbaree Duke (and Anita Palmer)

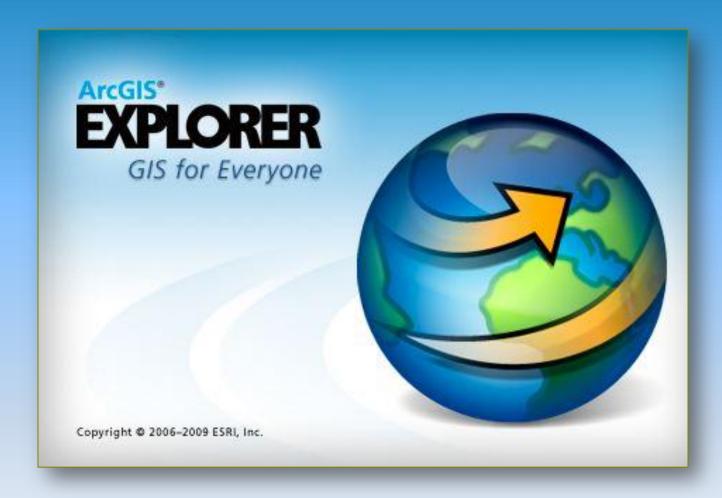
Because Classroom Teachers...



- Want to add geospatial elements to their classroom.
- May have only one computer in the classroom.
- Have very little time in computer lab.
- Need to augment key concepts.
- Have minimal technology skills.
- Have minimal GIS skills.
- Are not permitted to use Google Earth, but want a virtual globe experience for students.
- Have just 20 minutes to explore new technology.

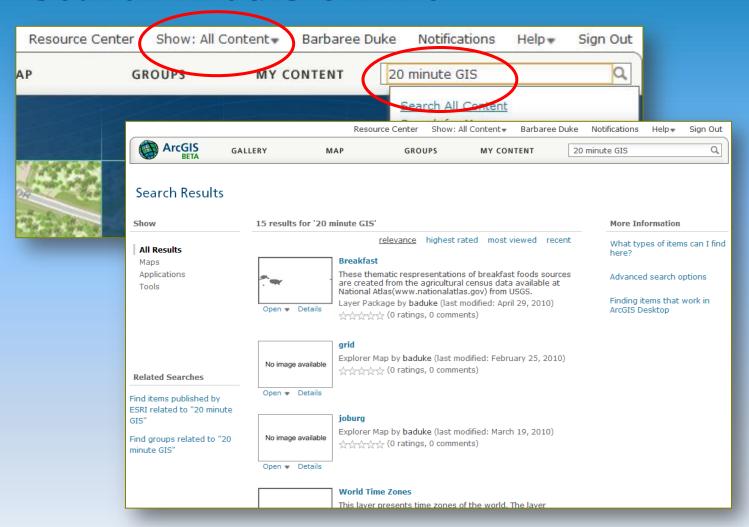
We created 20 Minute GIS!

GIS Tool



Free Virtual Globe Software from ESRI http://www.esri.com/arcgisexplorer

Search ArcGIS Online



Ready-to-Use Activities

Plus all the ancillary materials for successful implementation!

Tic-Tac-Toe, Where Can You Go?

INTRODUCTION

Do you like to play Tic-Tac-Toe? Our planet is one big game board...a system of lines that are carefully numbered so that we can pinpoint where we are on the grid. The earth's grid system is known at latitude and longitude coordinates. Curiously, it's related to something we do in math class called coordinates where each point is assigned a location (x,y). On the globe, y is our latitude (north or south) and x is our longitude (east or west) that we represent as N, S, E, and W. Let's look at the globe and find the connections between math and geography!

INSTRUCTIONS

Launch ArcGIS Explorer 900.

Click the globe button, open grid.nmf. There is a grid system on the globe. The yellow lines help us navigate. Move the globe around to Africa. The two lines cross each other. As that point where they intersect, the coordinates are $\{0,0\}$.

Look at the labels and answer Question 1& 2.

Double-click on 30N 90W in the Contents window.

Answer Question 3.

Double-click on 30S 90W in the Contents window.

/Answer Question 4.

Double-click on 30N 90E in the Contents window.

Answer Question 5.

Double-click on 30S 90E in the Contents window.

Use the measure tool to discover how many miles this spot is from la //Answer Question 6.

Change the map to 2D. Double-click "Base Map" in Contents. An

QUESTION

- What is the line's name that separates North from South?
- 2. What is the line's name that separates East from West?
- 3. What city are you nearest at 30N 90W? What feature is label
- 4. Where are you at 305 90W? What country are you nearest?
- 5. What is the geographic feature at 30N 90E? What country are
- 6. Where are you at 30S 90E? How far is the closest land?
- 7. What shape do these points form?

20 Minute GIS-Tic-Tac-Toe, Where Can You Go? Copyright @GISetc, a division of Critical Think, Inc. www.g



Tic Tac Toe, When Can You Go? Student Answer Sheet

- 1. What is the line's name that separates North from South?
- 2. What is the line's name that separates East from West?
- 3. What city are you nearest at 30N 90W? What feature is labeled near this location?
- 4. Where are you at 30S 90W? What country are you nearest?
- 5. What is the geographic feature at 30N 90E? What country are you in?
- 6. Where are you at 30S 90E? How far is the closest land?
- 7. What shape do these points form?

Extras:

- Teacher Instructions
- Answer Keys
- National, Texas and Virginia Standards Correlations
- Got an hour? Activity Extensions included!
- How-to Videos

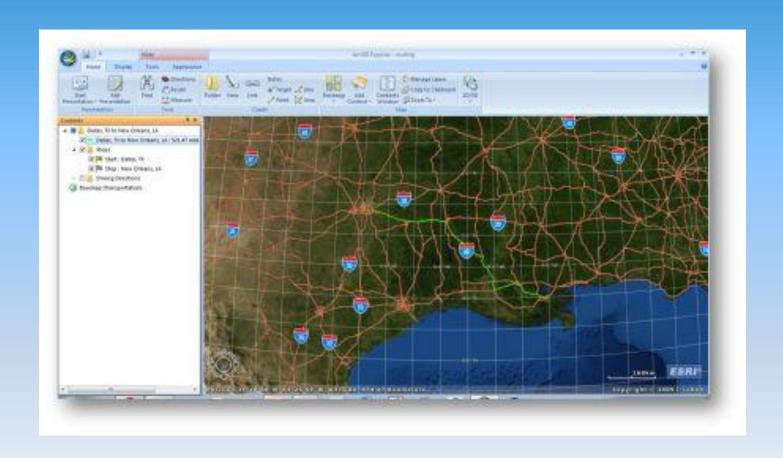
Coordinate Systems
Time Zones & Inequalities
Routing & Measuring



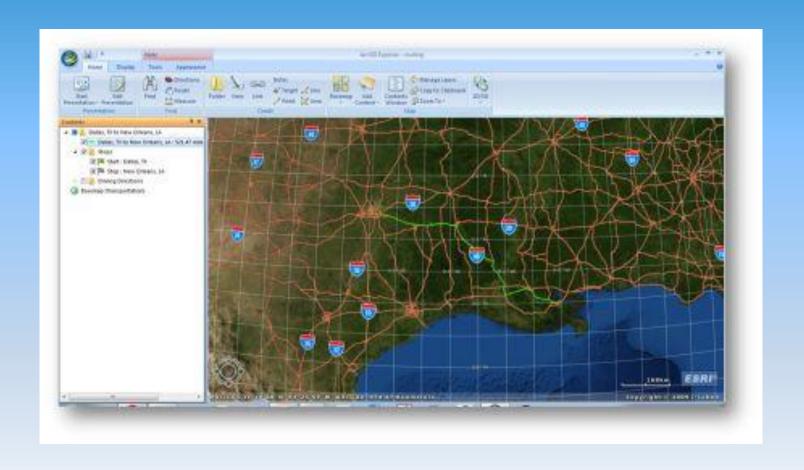
Tic Tac Toe, Where Can You Go?



Time Travelling



Are We There Yet?



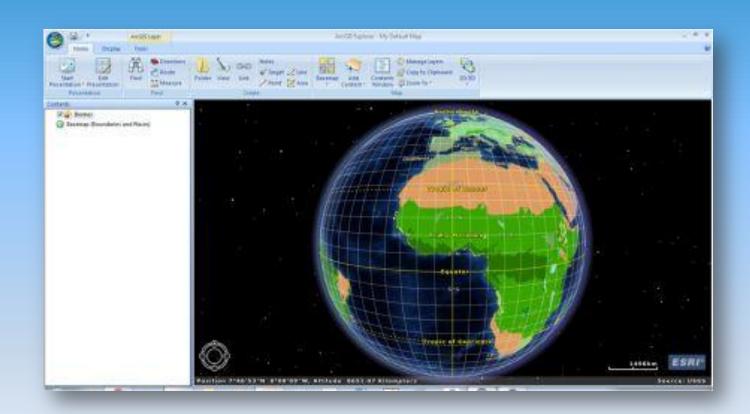
Biomes

Rivers

Food web



Home Sweet Biome



Going with the Flow?



Don't Eat Me!



Adventures in the Red Book

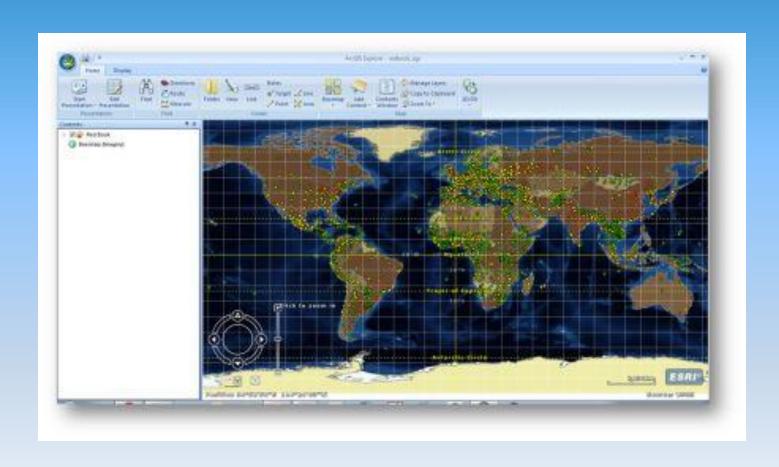
The Red Book

Earth: Poetry in Motion "Awesome Forces"

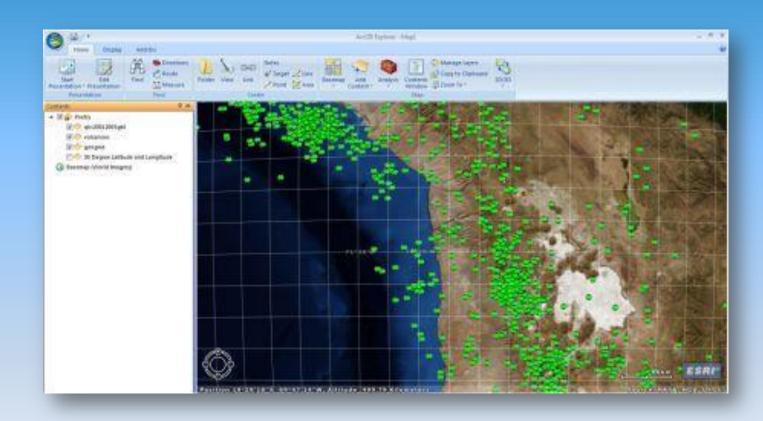
Somewhere in the World Right Now

ENGLISH LANGUAGE ARTS

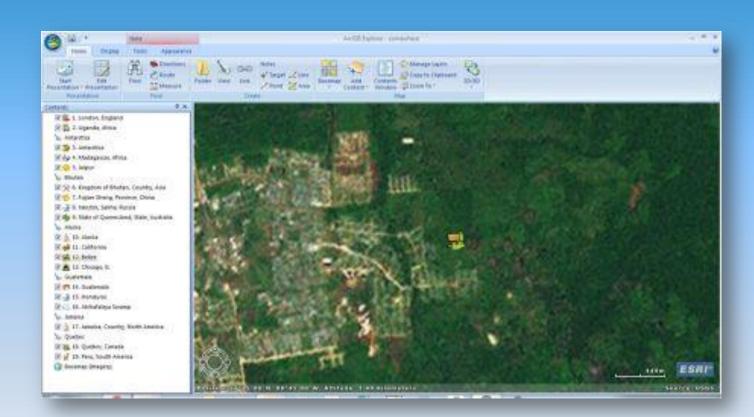
Adventures in the Red Book



Earth: Poetry in Motion



Somewhere in the World



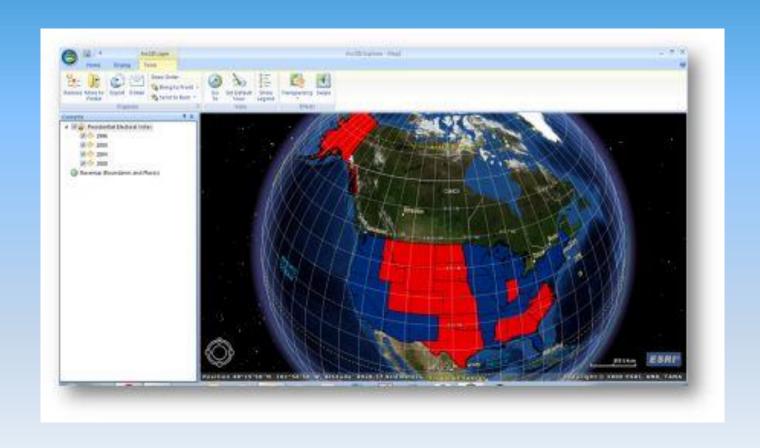
Voting Trends

Pirates' Havens

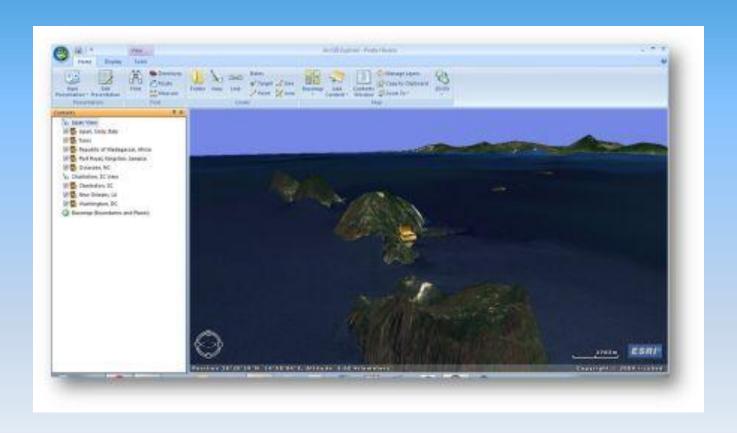
Agriculture

SOCIAL STUDIES

We the People: Does your vote count?



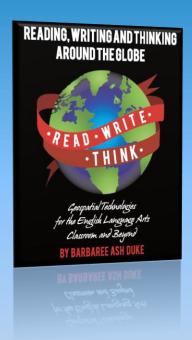
Pirate's Treasure: there's no place like home



Where Did Your Breakfast Come from?



Want to know more?



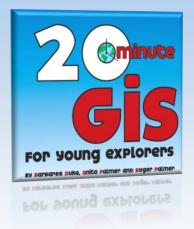
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