

discovering the world through gis

[www.gisday.com](http://www.gisday.com)

# GIS Day

*Geography Matters™!*



GIS  Day™



# Where's Waldo?

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# What Is Geography?

Geography is a science that enables us to find answers to questions about the world around us.

Geography helps us to locate where things are and how or why they are there.

# What is GIS?

GIS is an abbreviation for geographic information systems which is a set of tools that captures, stores, analyzes, manages, and presents data that are linked to locations. In the simplest terms, GIS is the merging of cartography, statistical analysis, and database technologies to develop better solutions and make better decisions.

# How does GIS fit into your Future?

- Critical thinking
- Cross-disciplinary problem solving
- Academic to real-world concepts
- Pathway for deciding best solutions
- Problem-based learning (PBL)
- Motivation with technology
- Builds workforce ready skills
- Growing demand in job market

# Jobs Where People Use GIS

- Computer Science
- Electric/Gas Utilities
- Business/Marketing
- Telecommunications
- Transportation Logistics
- Petroleum & Mining
- Engineering
- Water & Wastewater
- Health Care
- Federal Government
- Economics
- Environmental Mgmt.
- Local Government
- School Districts
- Geology
- Military/Intelligence
- Archeology
- Sociology
- Community Planning
- Real Estate & Cadastral
- Site Location
- Agriculture
- Forestry
- Public Safety
- Risk Management
- Aerial Photography

# What is the GIS Job Market?

- Industry grew by double digits in early 2010's
- Is considered a "high growth industry" (Dept. of Labor)
- Expected annual growth of 35% each year through 2020
- Florida was 4th of top 10 job postings states in GIS
- Can earn an annual salary of up to \$70,000
- GIS Analyst (Information Technology Sector) rank in top 100 of Best Jobs in America (CNN Money)
- Diversity of available jobs based on all educational levels



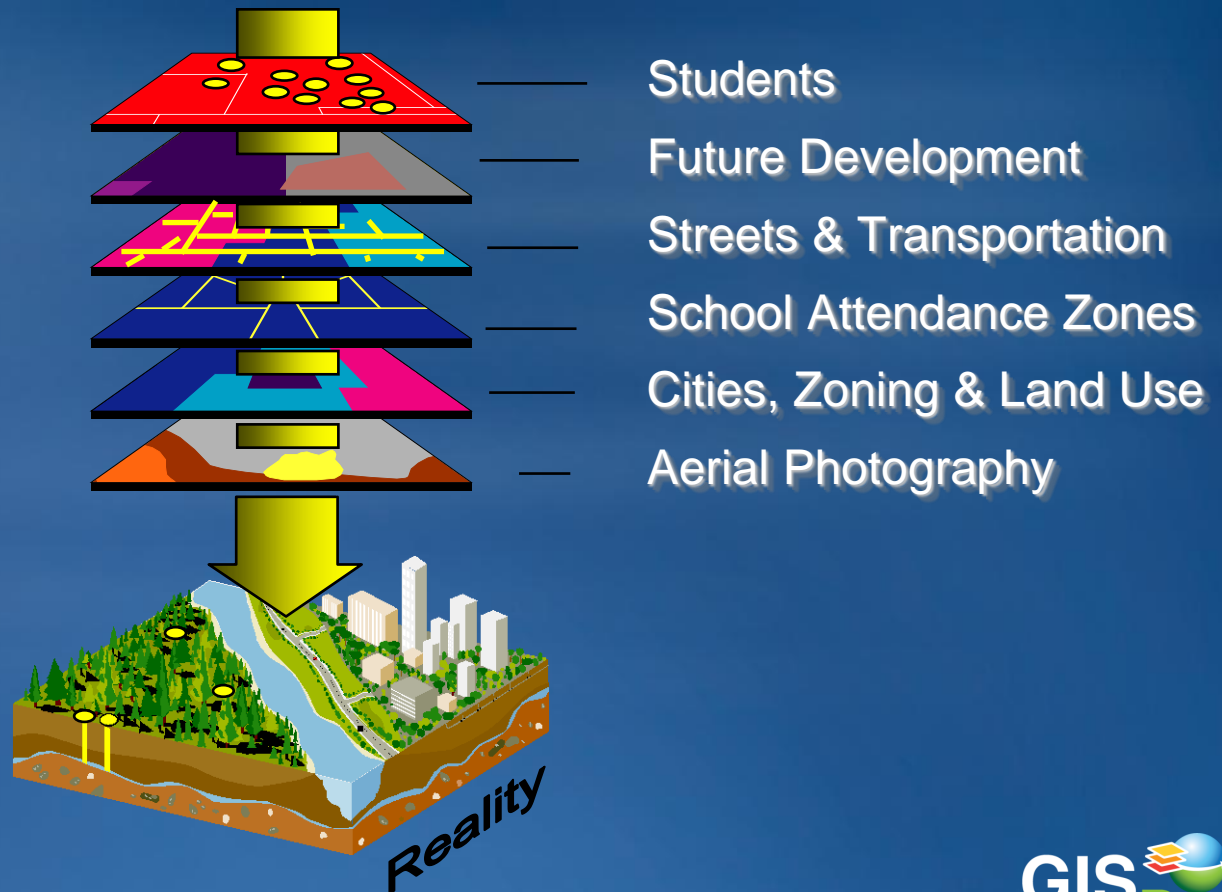
# What Are the Parts of a GIS?

- **Hardware**  
computers, printers, servers
- **Software**  
programs, applications
- **Data**  
information, tables,  
spreadsheets, databases
- **Methods**  
how to ask questions
- **People**

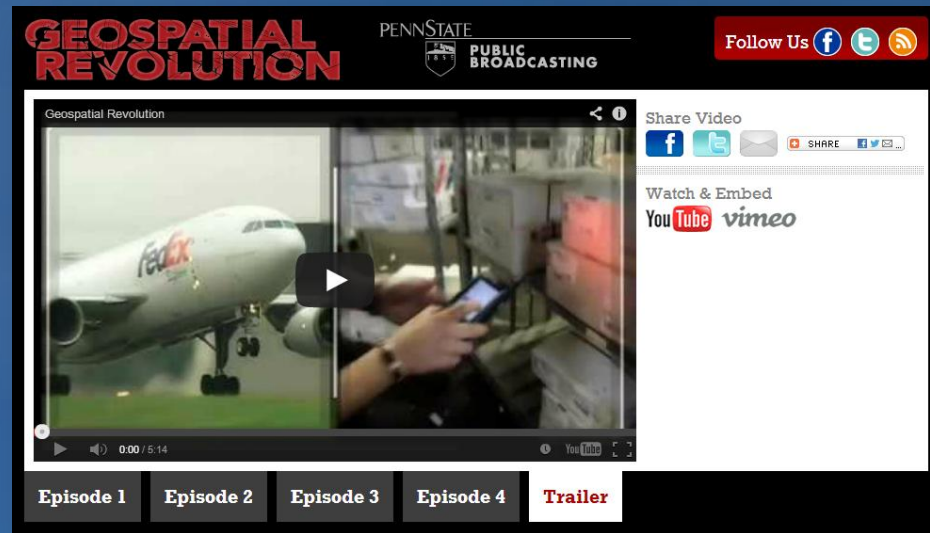




# GIS Integrates All the Parts... to See the Whole Picture!



# Movie Trailer on Geospatial Technology from Penn State University (Geospatial Revolution Project)



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# 42 Amazing Maps

That help me understand  
the world around me  
and my place in it  
by John Green



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# My Information



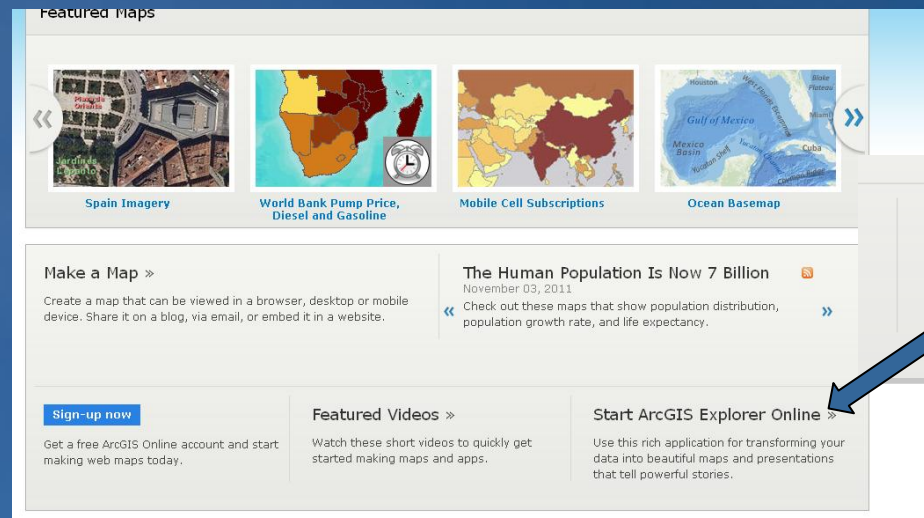
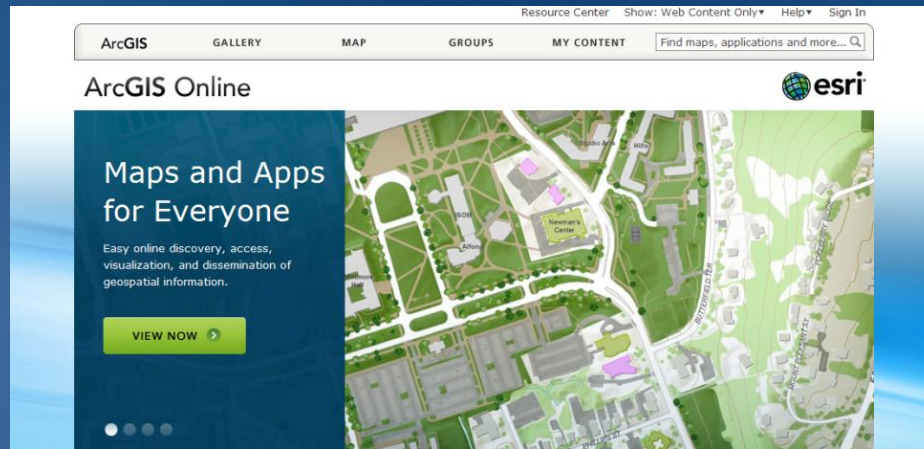
# Materials for Intro into ArcGIS.com

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[www.gisday.com](http://www.gisday.com)

Type in [www.arcgis.com](http://www.arcgis.com) on your browser; click Start ArcGIS Explorer Online at the bottom right



Start ArcGIS Explorer Online »

Use this rich application for transforming your data into beautiful maps and presentations that tell powerful stories.

# Sign in to your account

ArcGIS Explorer Online - Windows Internet Explorer

http://explorer.arcgis.com/

File Edit View Favorites Tools Help

ArcGIS Explorer Online

Sign In Help

### Featured Maps

Find Maps & Groups

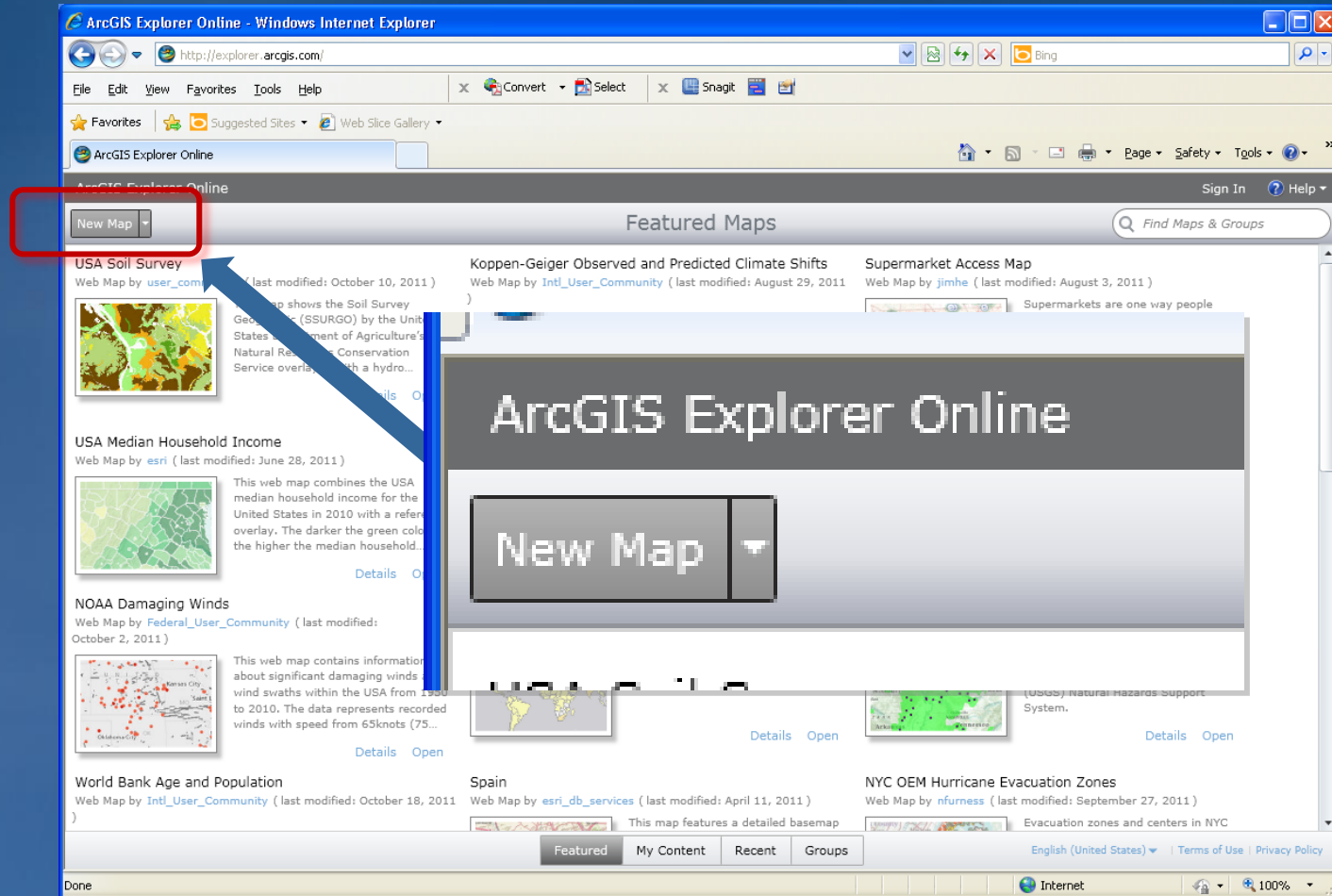
- USA Soil Survey**  
Web Map by user\_community (last modified: October 10, 2011)  
This map shows the Soil Survey Geographic (SSURGO) by the United States Department of Agriculture's Natural Resources Conservation Service overlaid with a hydro...  
[Details](#) [Open](#)
- Koppen-Geiger Observed and Predicted Climate Shifts**  
Web Map by Intl\_User\_Community (last modified: August 29, 2011)  
This time-enabled Map displays observed and predicted climate shifts from 1901-2100 using Köppen-Geiger climate classification.  
[Details](#) [Open](#)
- Supermarket Access Map**  
Web Map by jimhe (last modified: August 3, 2011)  
Supermarkets are one way people have access to healthy food. This map shows where the supermarkets are. Areas that are within a 10 minute drive are depicted, as are areas within a 1...  
[Details](#) [Open](#)
- USA Median Household Income**  
Web Map by esri (last modified: June 28, 2011)  
This web map combines the USA median household income for the United States in 2010 with a reference overlay. The darker the green color, the higher the median household...  
[Details](#) [Open](#)
- Seattle DOT Parking Map**  
Web Map by jgrayson (last modified: September 29, 2011)  
Seattle DOT Parking Map  
[Details](#) [Open](#)
- USA Tapestry Segmentation**  
Web Map by esri (last modified: June 27, 2011)  
This web map combines Esri Tapestry Segmentation clusters in the United States in 2010 with a reference overlay. The Esri Tapestry Segmentation is a classification of...  
[Details](#) [Open](#)
- NOAA Damaging Winds**  
Web Map by Federal\_User\_Community (last modified: October 2, 2011)  
This web map contains information about significant damaging winds and wind swaths within the USA from 1950 to 2010. The data represents recorded winds with speed from 65knots (75...  
[Details](#) [Open](#)
- Carbon Dioxide Emissions on the Rise**  
Web Map by acarroll73 (last modified: October 6, 2011)  
Emissions of CO2, a greenhouse gas, have risen steadily for the last 30 years.  
[Details](#) [Open](#)
- USA Active Floods**  
Web Map by user\_community (last modified: September 28, 2011)  
This web map shows locations of active flooding in the United States from the United States Geological Survey's (USGS) Natural Hazards Support System.  
[Details](#) [Open](#)
- World Bank Age and Population**  
Web Map by Intl\_User\_Community (last modified: October 18, 2011)  
[Details](#) [Open](#)
- Spain**  
Web Map by esri\_db\_services (last modified: April 11, 2011)  
This map features a detailed basemap  
[Details](#) [Open](#)
- NYC OEM Hurricane Evacuation Zones**  
Web Map by nfurness (last modified: September 27, 2011)  
Evacuation zones and centers in NYC  
[Details](#) [Open](#)

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Done Internet 100%

# Select "New Map" at top left in ArcGIS Explorer Online





# Measure, Query, Draw features, Create Presentations

Customize Your Map  
(continued)

You can:

- Measure Distance
  - Measure area
  - Query
  - Draw on the Map
  - Create a Map Presentation
- Presentation

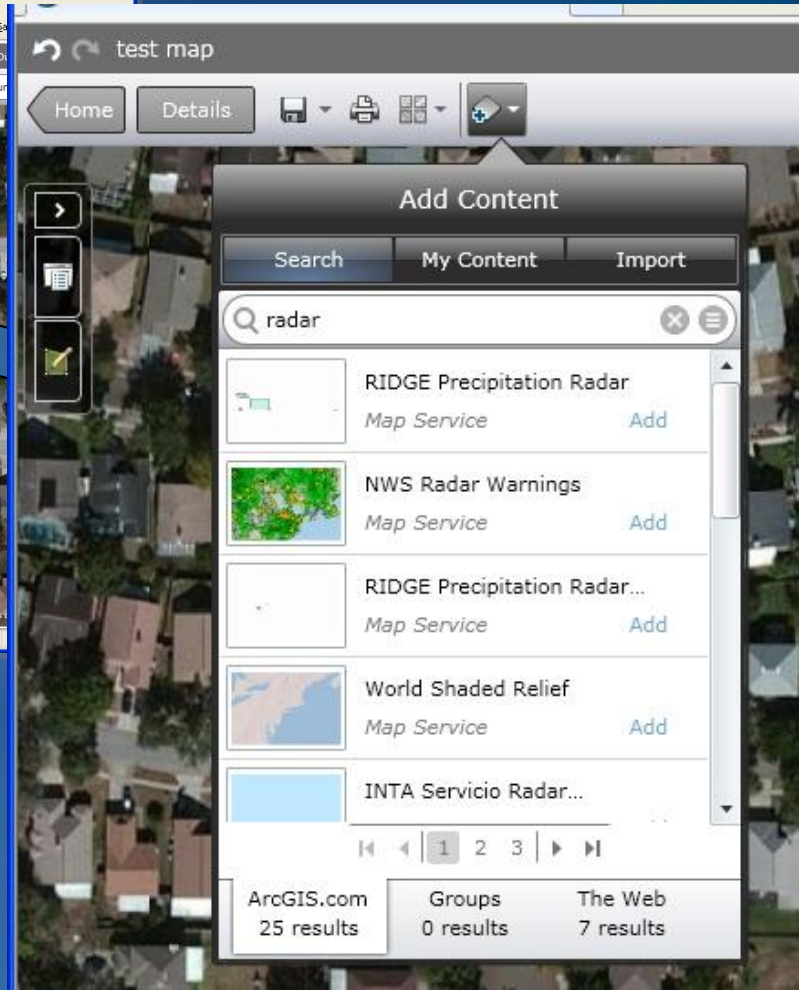
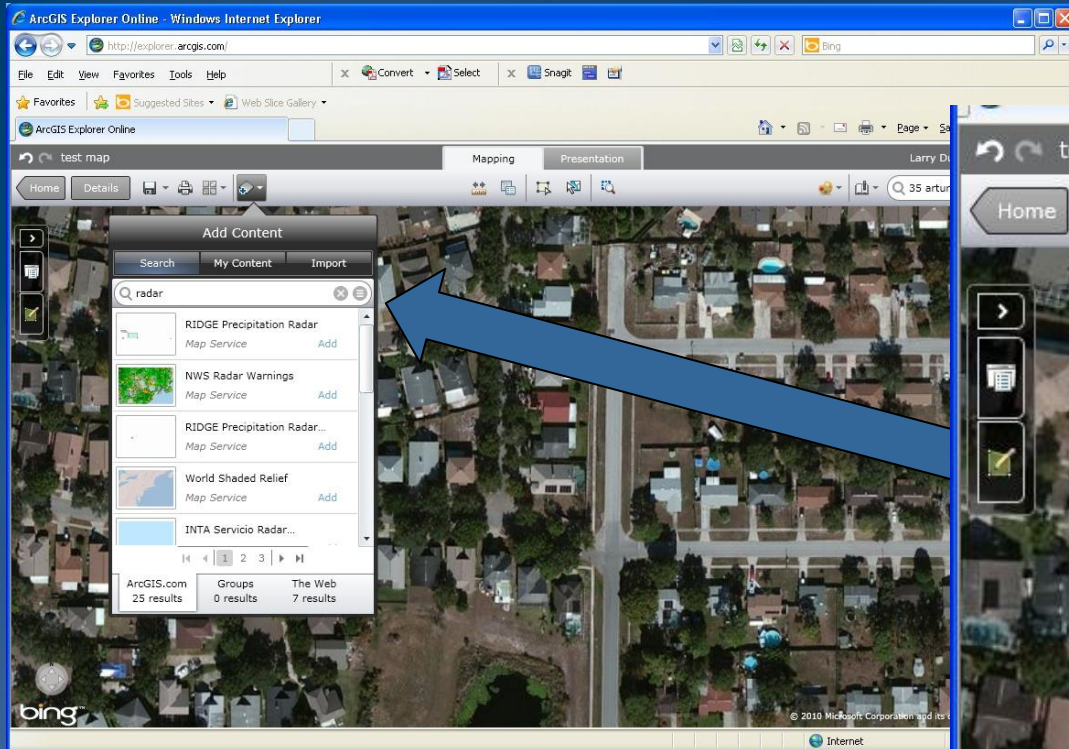
The image shows a screenshot of the ArcGIS Explorer Online web application. The browser window title is "ArcGIS Explorer Online - Windows Internet Explorer" and the address bar shows "http://explorer.arcgis.com/". The application interface includes a top navigation bar with "Mapping" and "Presentation" tabs. The "Presentation" tab is currently selected. Below the navigation bar is a toolbar with icons for home, details, save, print, and other functions. The main area displays a world map with labels for "Asia", "North America", "Europe", "Africa", and "South America". A search bar at the bottom right contains the text "5001 coconut road, bonita". In the bottom right corner, it says "POWERED BY esri" and "Sources: USGS, ESRI, TANA, AND".

Two callout boxes highlight specific features:

- A red box highlights the "Mapping" and "Presentation" tabs in the top navigation bar.
- A black box highlights the navigation tools, including a zoom slider, a compass, and a coordinate display (XY) button.

Text at the bottom right of the image reads: "Pan/Zoom Tool, Coordinates".

# Customize Map (continued)



You can add data from contributors all over the world, or data you create.

# Your first Map

## Customize your map:

- Change Base-map
- Add data
- Add Bookmarks
- Find Places
- Save Your Map

The image shows a screenshot of the ArcGIS Explorer Online web application. The interface includes a top navigation bar with a search box labeled "Find Places" and a "Sign In" button. Below this is a toolbar with icons for Home, Details, and a red-bordered menu containing icons for Add Data, Change Base-map, and Save Map. The main area displays a map of North America and the Atlantic Ocean. A callout box at the top center reads "Add Data, Change base-map, Save map". A callout box at the bottom right reads "Search for Places, Add bookmarks". A callout box at the bottom left shows a zoom and pan toolbar. The bottom status bar indicates "Done" and "Internet" connection.

Add Data, Change base-map, Save map

Search for Places, Add bookmarks

# ArcGIS Explorer Online Demo

The screenshot displays the ArcGIS Explorer Online web application interface. The browser window title is "ArcGIS Explorer Online - Mozilla Firefox". The address bar shows the URL "explorer.arcgis.com/Opens-2a7f44e7881d4e0d823b1975553ca17". The browser tabs include "Desktop Help 10.0 - About...", "Resolution 2011-11.pdf (ap...", "ArcGIS - Lake Minneola Hig...", "ArcGIS Explorer Online", "2011 Extend the Reach of Y...", "Public Maps Gallery", and "Daily Dose of Excel » Blog A...". The application interface features a top navigation bar with "Home", "Details", "Mapping", and "Presentation" tabs. A search bar on the right contains the text "Find Places". The main map area shows a geographic view of central Florida, with various school attendance zones highlighted in different colors (red, orange, yellow, green, blue, purple). A thick black outline highlights a specific region in the center. On the left side, a "Layers" panel is visible, listing various map layers with checkboxes and expandable arrows. The layers include: "Lake County Boundary", "Tax Parcel Boundaries & Structure Addresses", "Public School Locations (All Grade Levels)", "Elementary School Locations", "Elementary School Attendance Boundary", "Elementary School Attendance Zone", "Elementary School (Secondary) Attendance...", "Elementary School (Secondary) Attendance...", "Middle School Locations", "Middle School Attendance Boundary", "Middle School Attendance Zone", "High School Locations", "High School Attendance Boundary", "High School Attendance Zone", and "Bing Maps Road". The "Organize" button is located at the bottom of the layers panel. The map area includes labels for various cities and towns such as Ocala, Deland, Orlando, and Titusville, as well as major roads and water bodies. The Esri logo is visible in the bottom right corner of the map area.

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# Web sites of interest



- [www.lakecountyfl.gov/](http://www.lakecountyfl.gov/)
- [www.lake.k12.fl.us/GISDay](http://www.lake.k12.fl.us/GISDay)
- *GIS Information* – [www.gis.com](http://www.gis.com)
- *GIS Day* – [www.gisday.com](http://www.gisday.com)