



What is GIS?

AL – the GIS guy



Who am I?



Who are you?

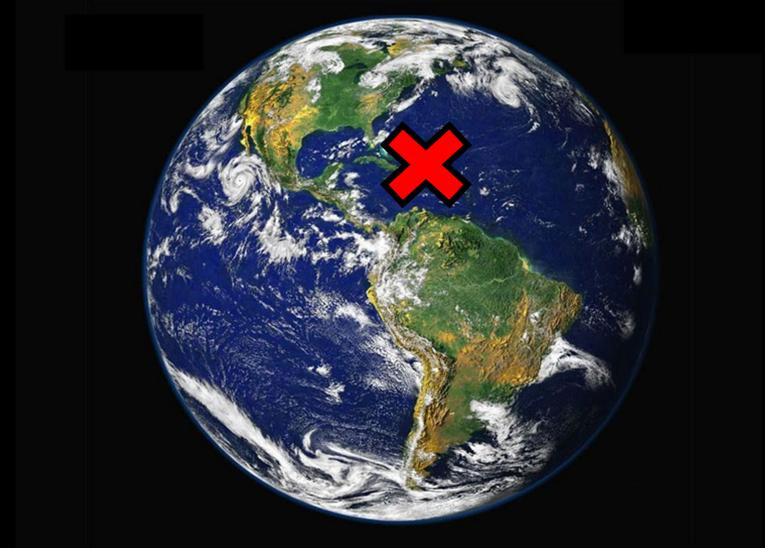
What are we going talk about today?

 **GIS**

Geography

“Geo” = Earth

study of the
earth



and **where** things are

What is GIS?

Geographic

+

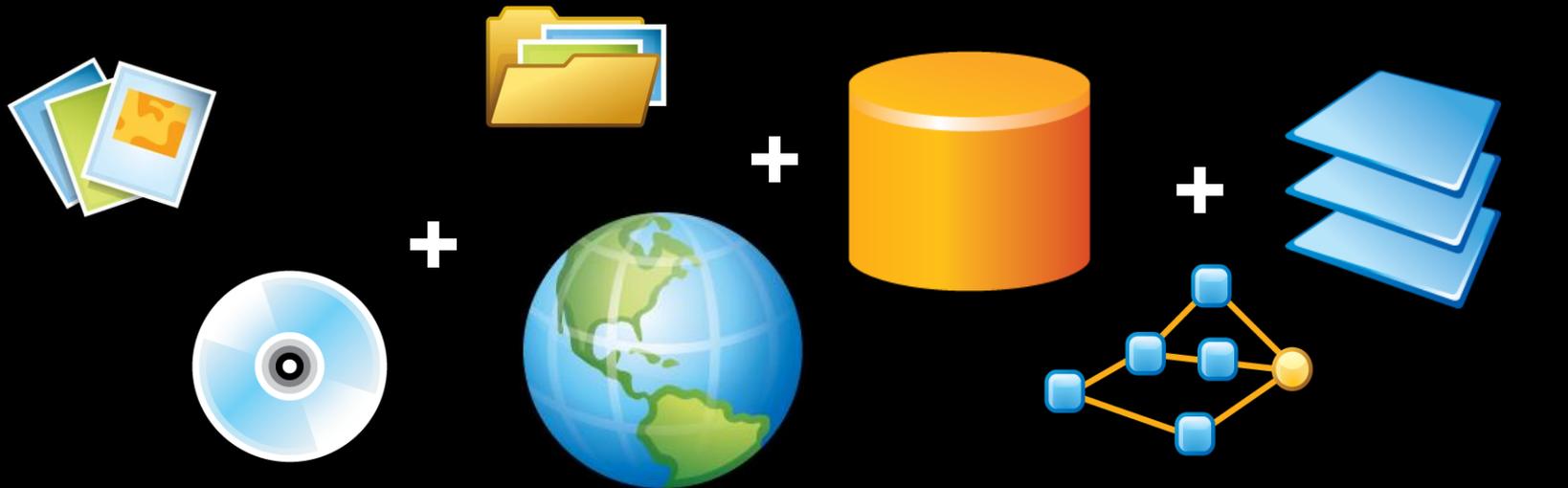
Information

+

Systems



Computer **systems** and **programs** that help answer questions about the world...

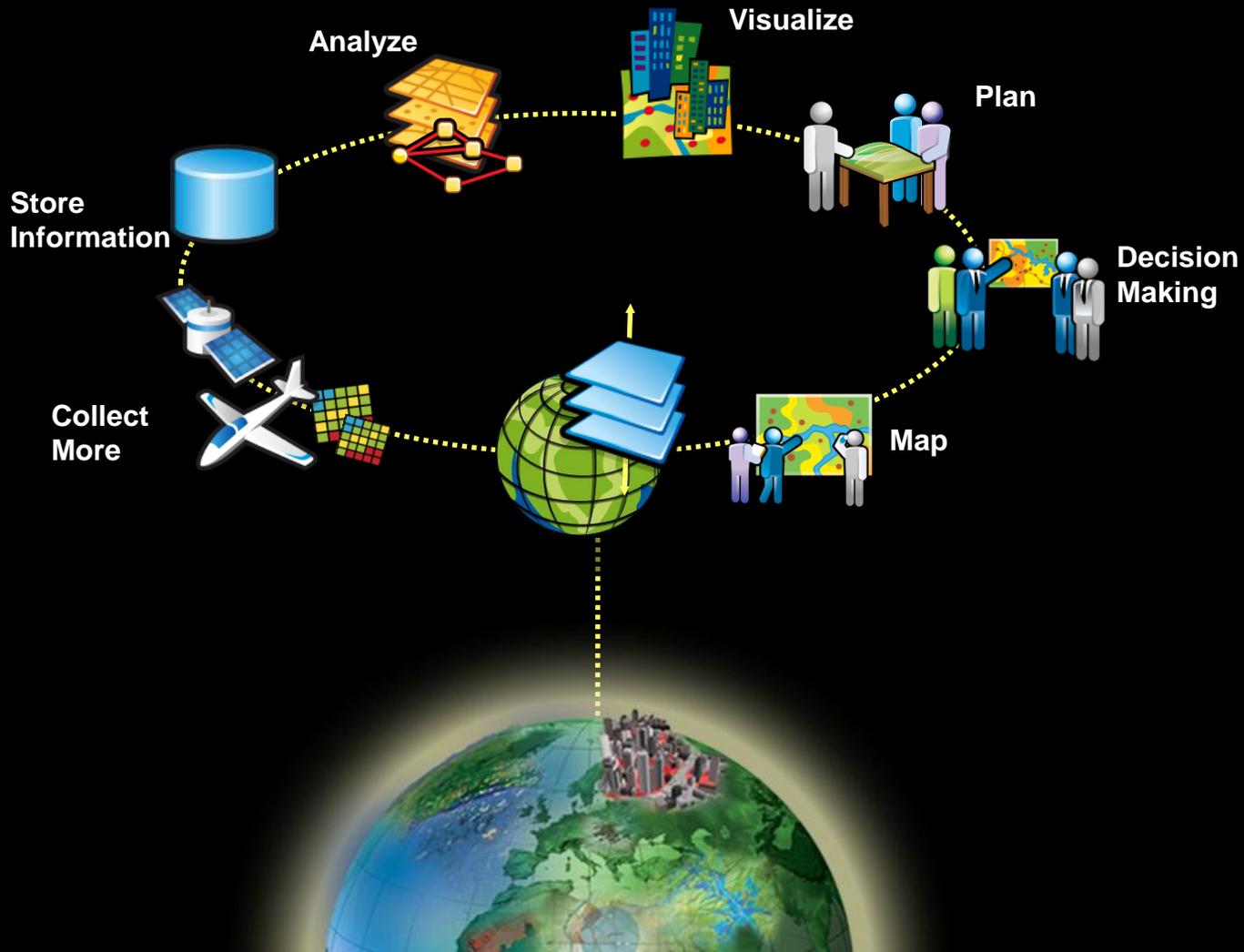


GIS

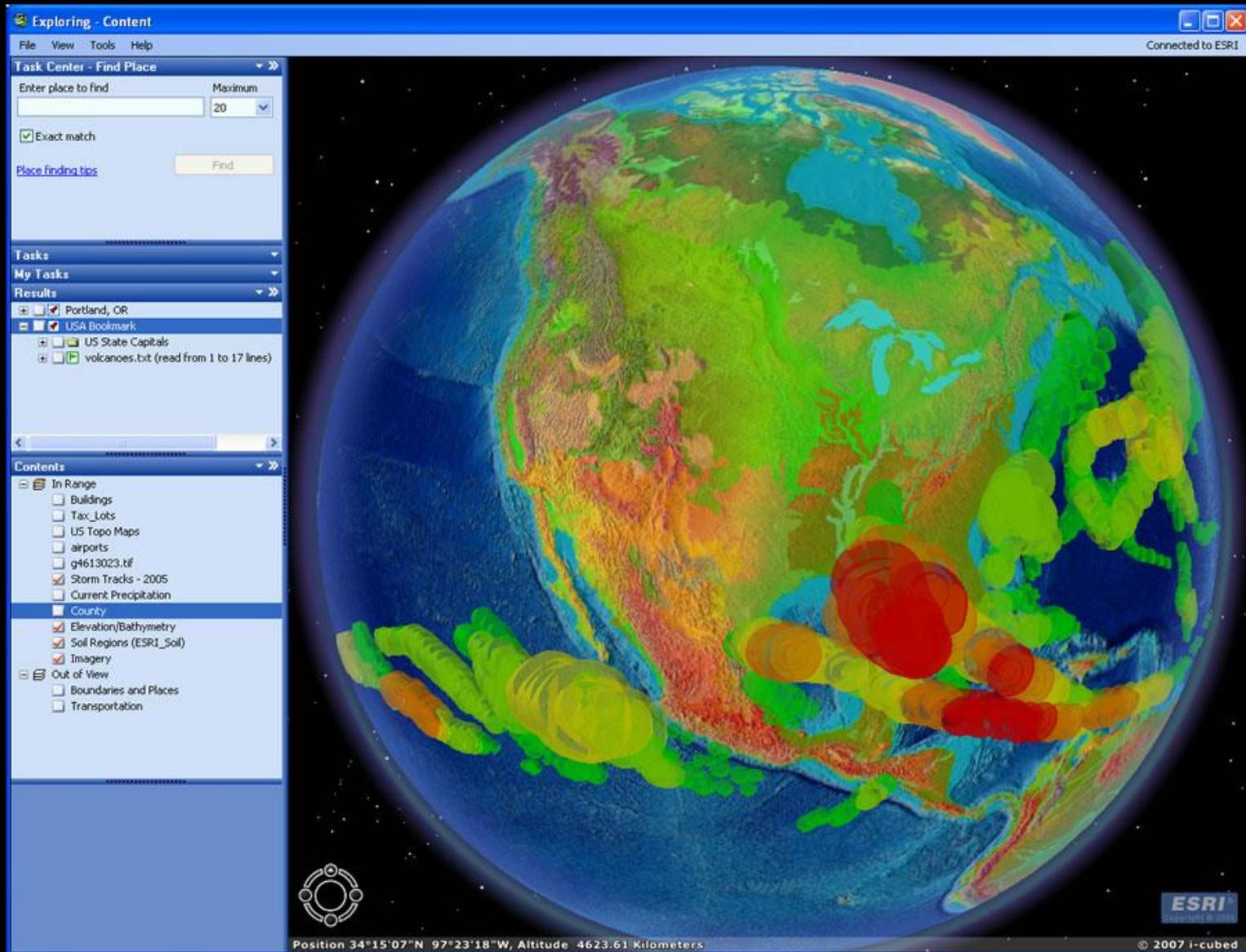
try to model
things on the
Earth



Use a **process** to build these models



Free GIS software - ArcGIS Explorer



What can

we do

with GIS?

Maps and charts

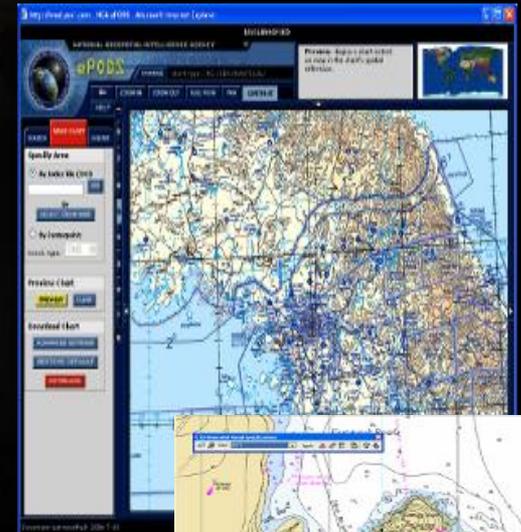
Transportation Map
Paris



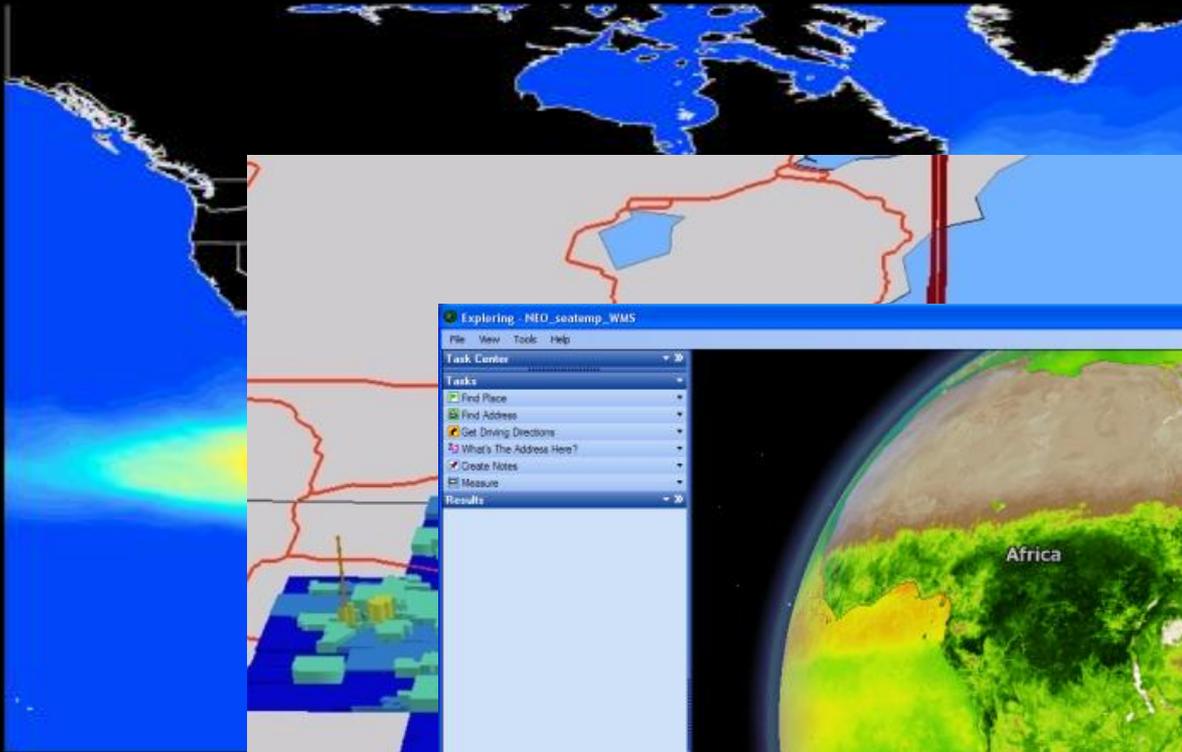
State Atlas
Michigan



Aeronautical Charts
NGA



Navigation Chart
USA



Exploring - MEO_seatemp_WMS

File View Tools Help

Task Center

Tasks

- Find Place
- Find Address
- Get Driving Directions
- What's The Address Here?
- Create Notes
- Measure

Results

Layers

- Vegetation Index (NDVI) (1 month - TerraMODIS)
- Billboarded Labels
- Sea Surface Temperature (1 month - AquaMODIS)
- Imagery
- Out of View

Position -9.161027 36.859915, Altitude 7554.96 Miles

ESRI

© 2007 i-cubed

cool maps...

**What else
can a
GIS do?**

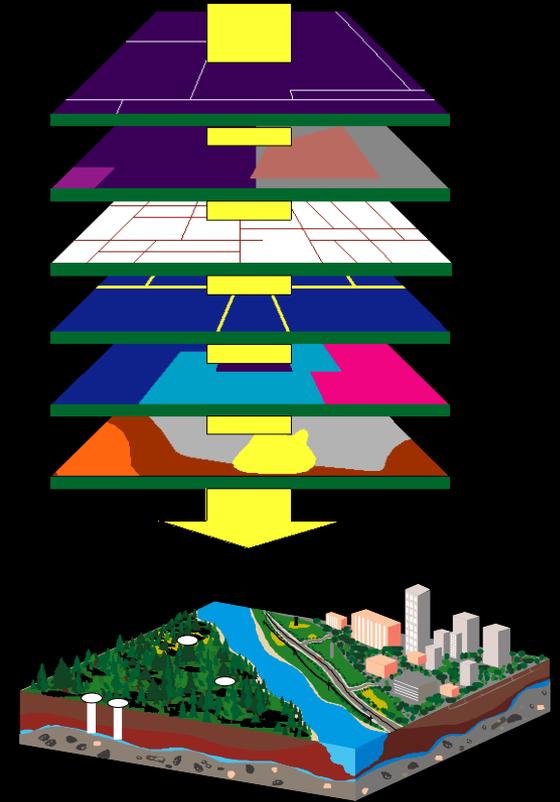
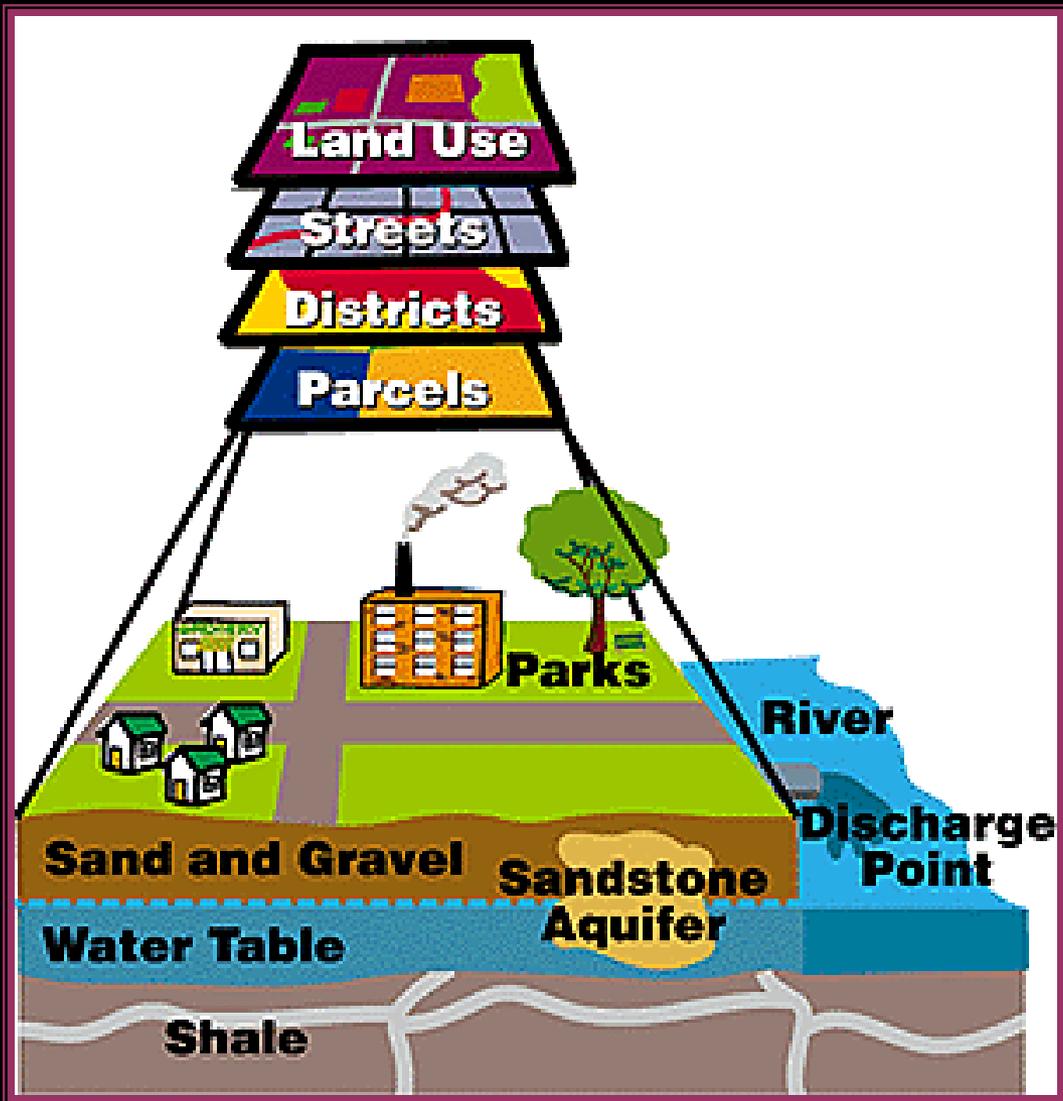
put important

information

on maps...

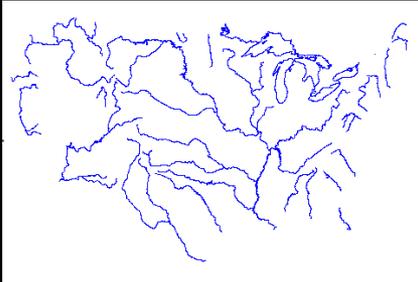


information = things in the **real-world**

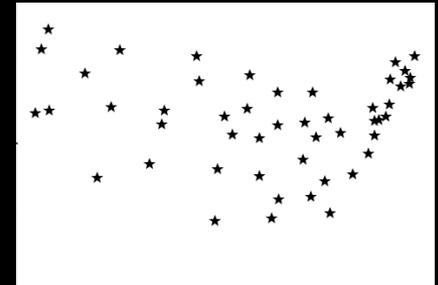


information is organized into **layers**

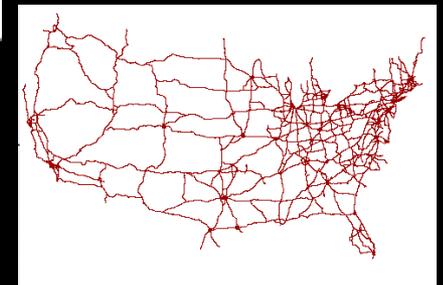
Rivers



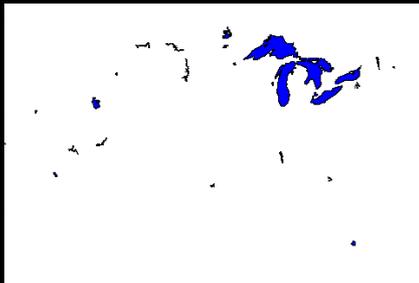
Cities



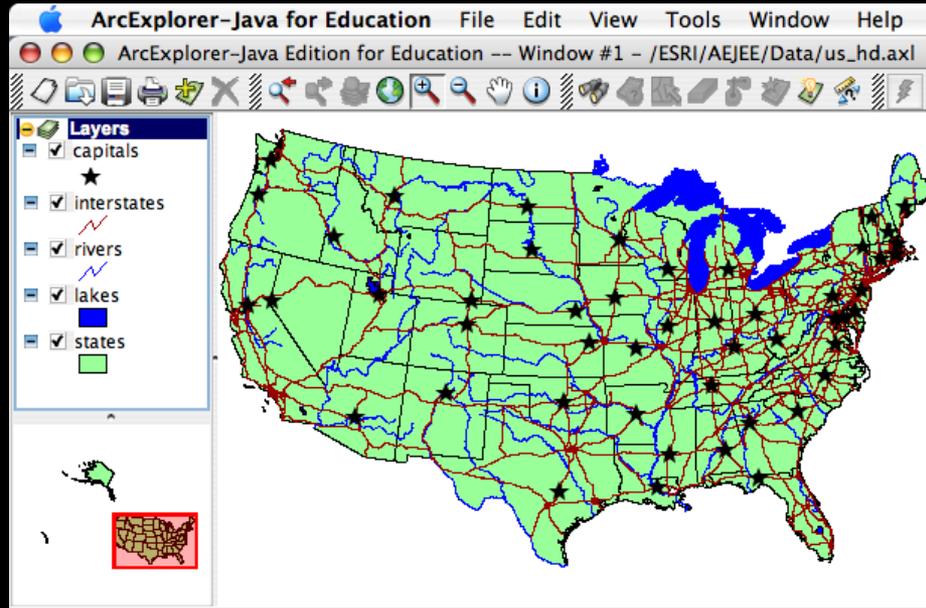
Roads



Lakes

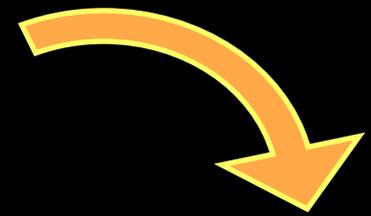


States



**What else
can a
GIS do?**

answer questions!



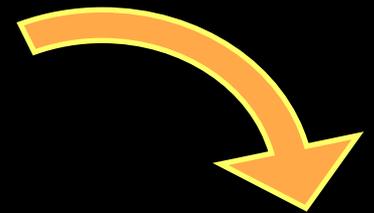
Answers



Where is the closest Chuck E Cheese?

Where was the last earth quake?

The population of people in the United States?



Answers

Here's my question...

How do I get to your School?

Many ways to use **GIS** in the real-world!



**Energy
Forecasting**



**Agricultural
Efficiency**



**Carbon
Management**



**Aviation
Safety**



**Homeland
Security**



**Community
Growth**



**Disaster
Management**



**Public
Health**



**Coastal
Management**



**Invasive
Species**



**Water
Management**



**Air
Quality**

**What else
can a
GIS do?**

Help us plan

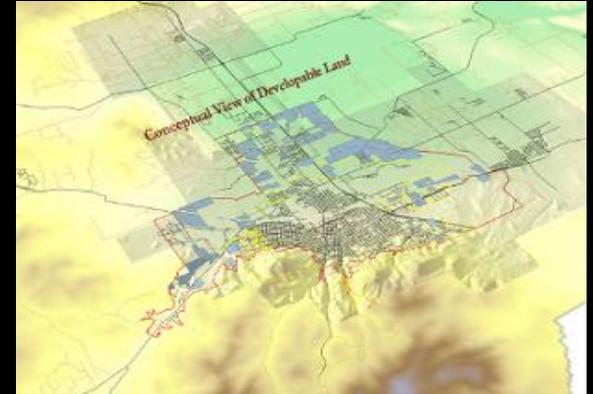
City & Urban Planning
California



Virtual City
Bangkok

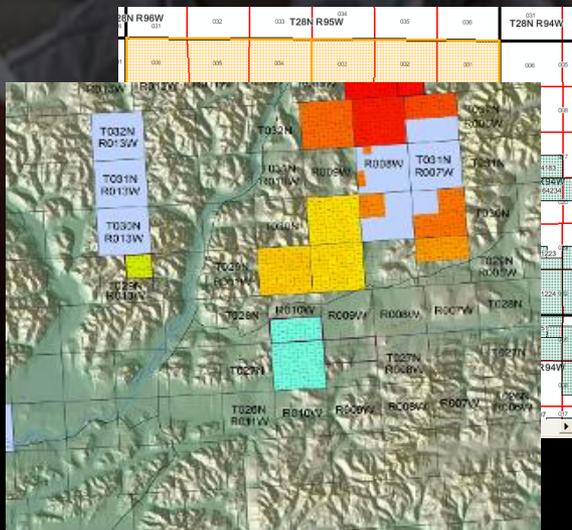


Land Use Suitability
Montana



Manage the land

Integrated Land Management
BLM

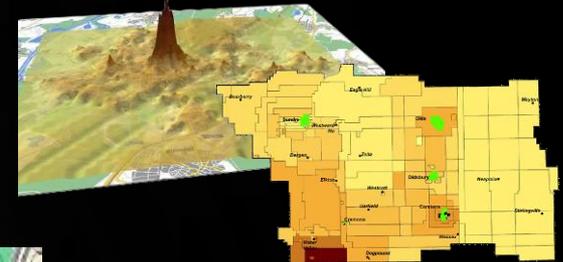


Native Land Selection
Alaska

Tax Mapping
Connecticut



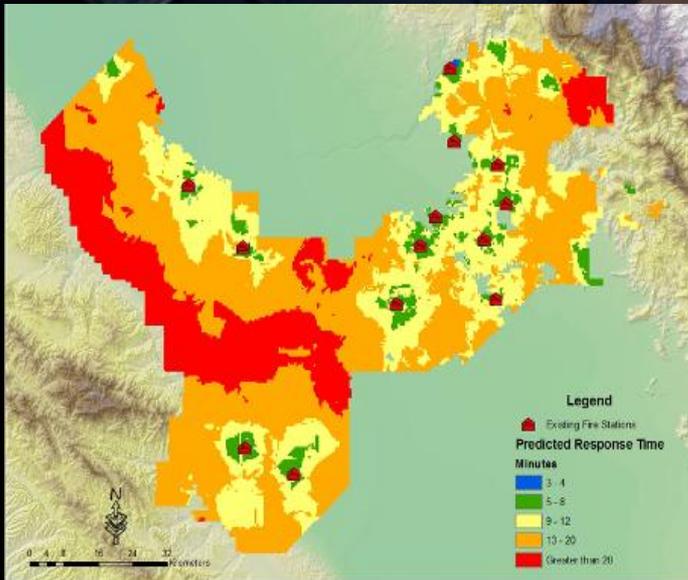
Property Evaluation
Germany



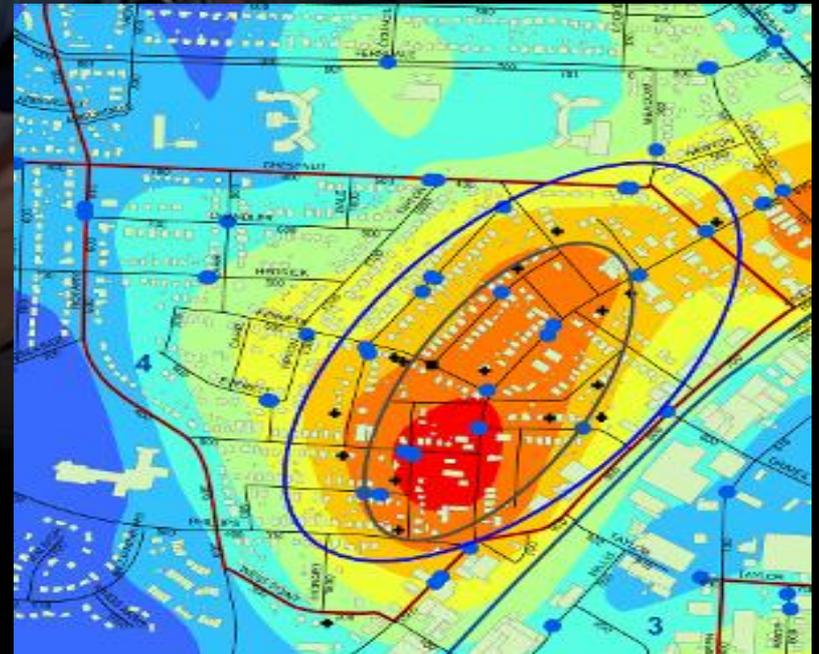
Canada

Increase public safety & help law enforcement

Fire Response
California

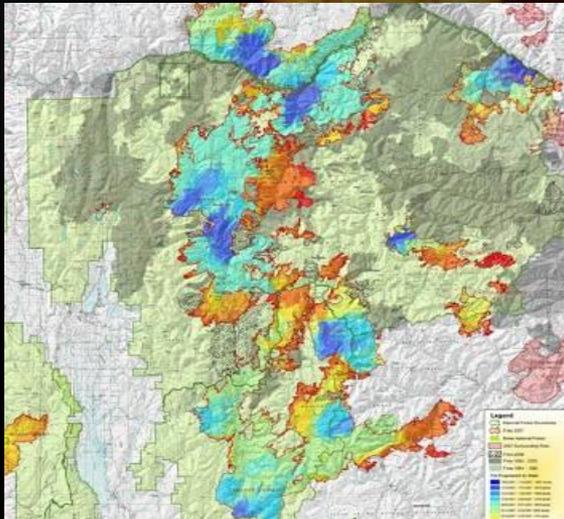


Crime Analysis
Texas

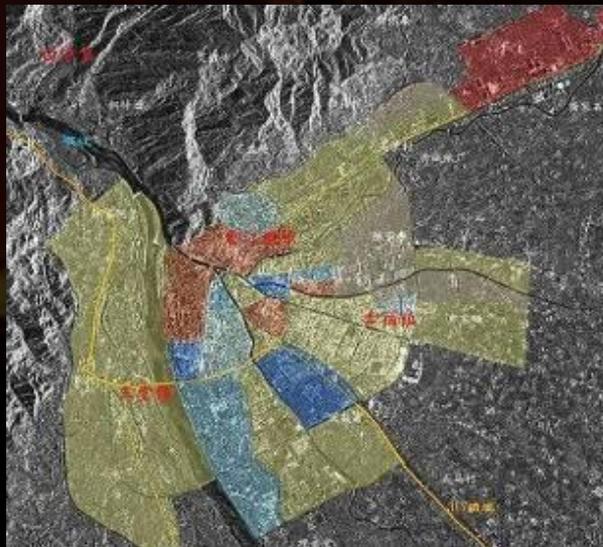


Help manage natural disasters

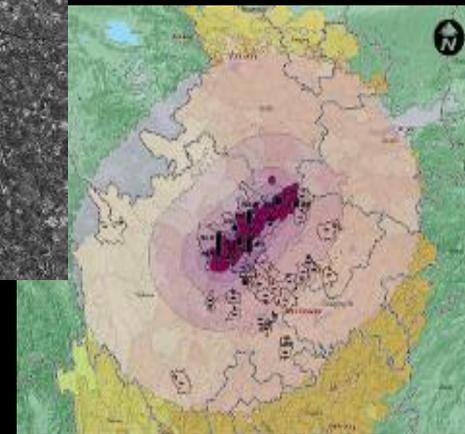
Wildfire
Idaho



Wenchuan Earthquake
China



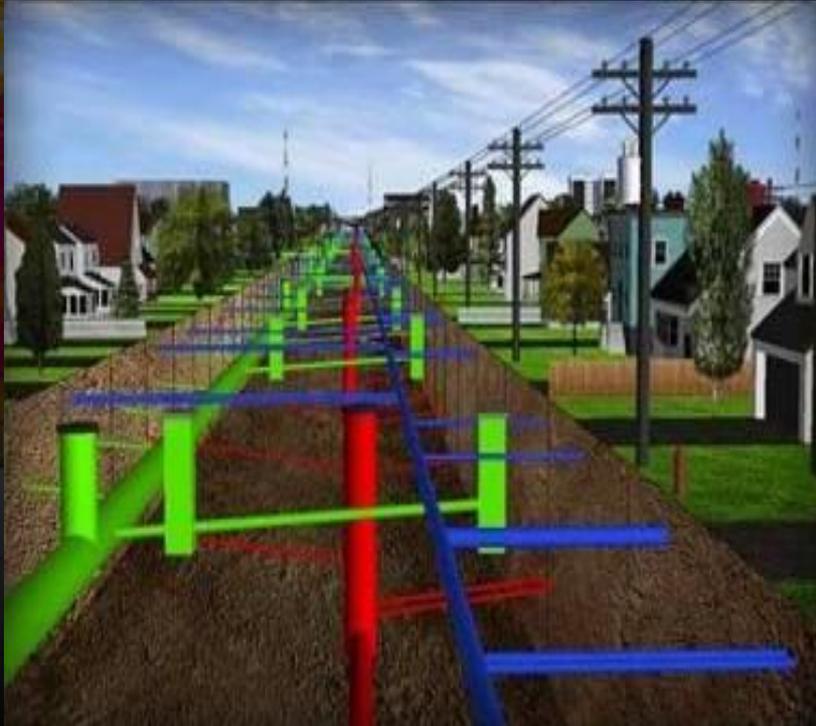
Floods Simulation
Houston



Aftershocks

Manage electricity, water, phone...

Networks
Canada



Highways
Bedfordshire, UK

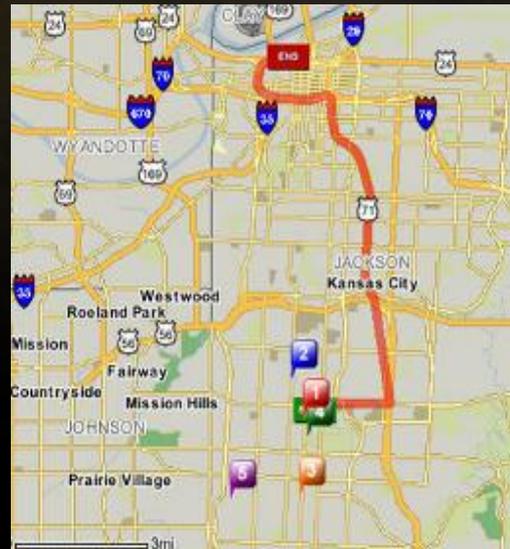


Model transportation

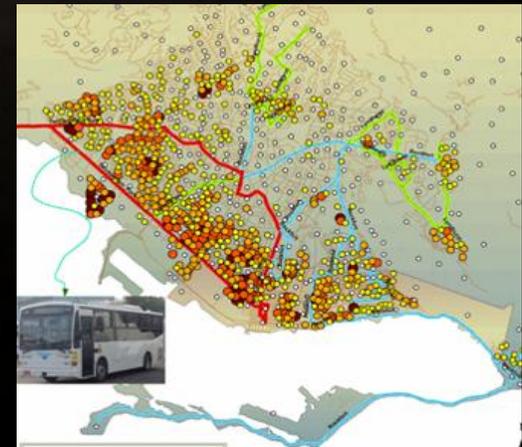
Real Time Traffic
Korea



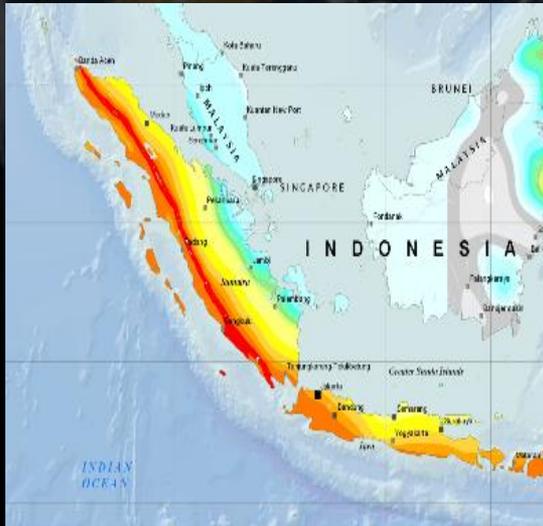
Ride Share
Kansas



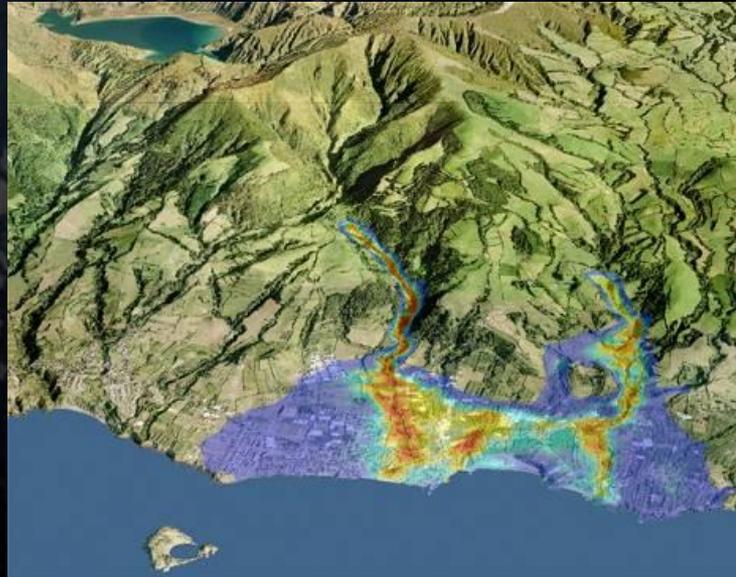
Transit Analysis
Jamaica



Earth science & water resources

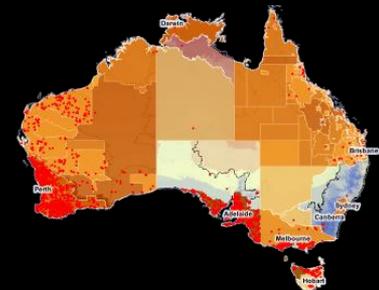


Seismic Hazards
Indonesia



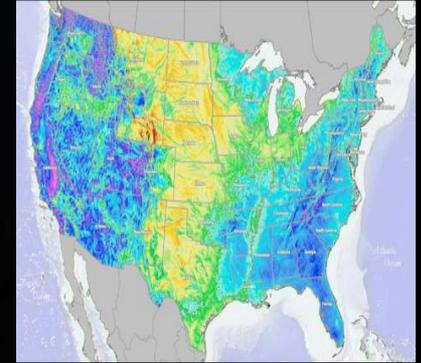
Flood Risk
Portugal

Online Soil Information
Australia



Monitor climate and energy

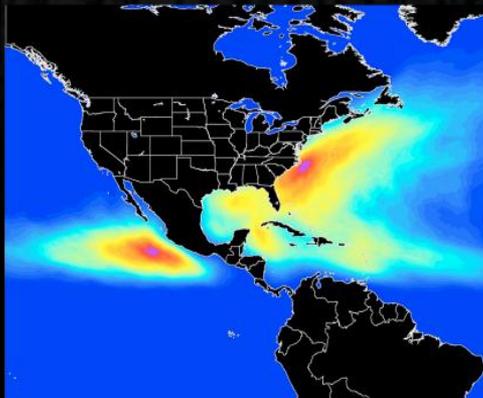
Wind Generation Potential
U.S.A.



Weather Monitoring
U.S.A.



Tropical Cyclones
National Hurricane Center



Impact of global climate change

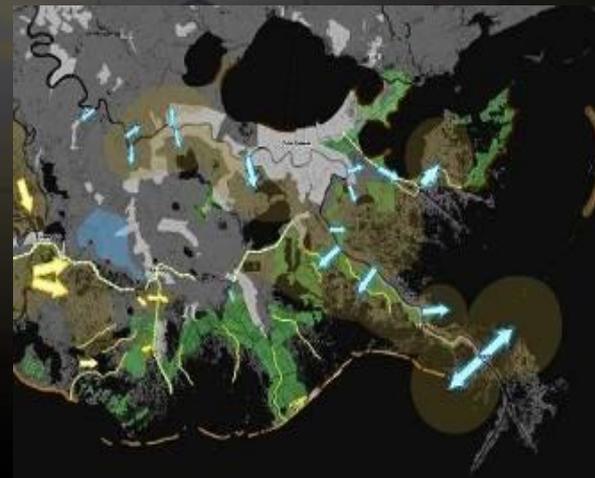
Sea Level Rise Modeling
Florida



New York



Vegetation Trends
Arctic



Coastal Zone Planning
Louisiana

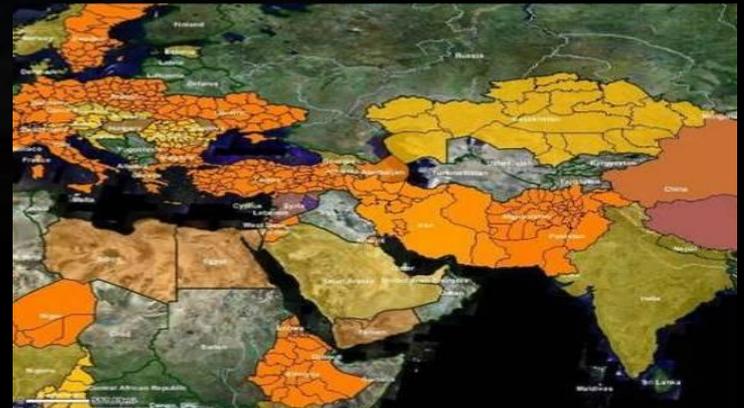
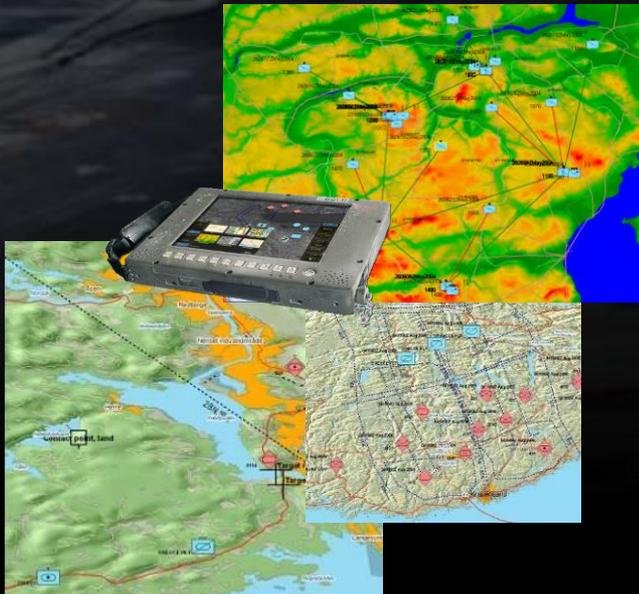
Protect our country

Geographical Security *Kingdom of Bahrain*

Model areas in
Europe



Global Surveillance

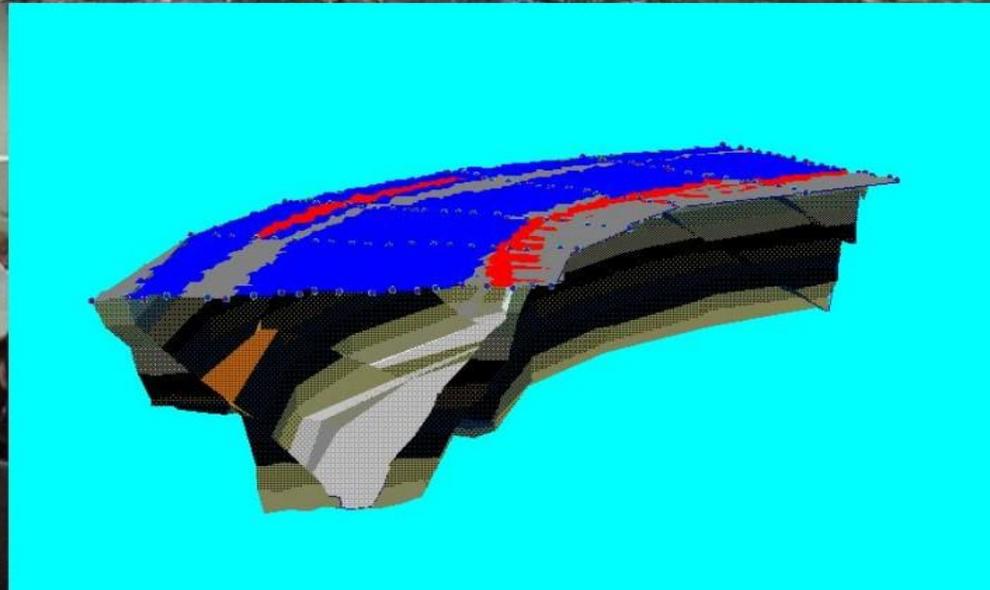


kids can use

GIS in the

real-world too

Find & collect field information



Geo-caching

www.geocaching.com

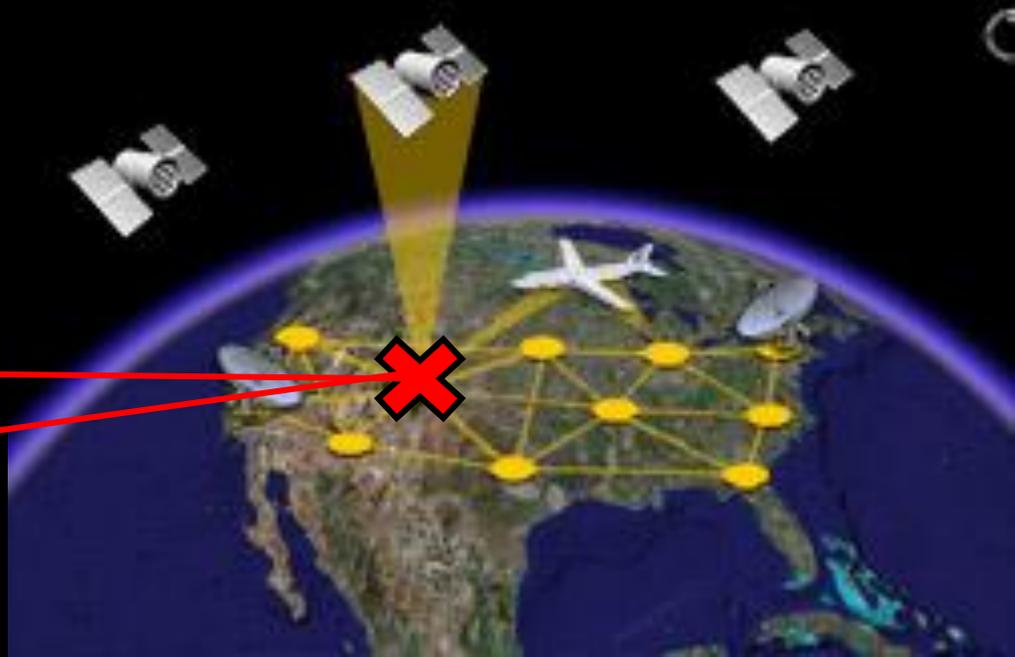


GPS – Where am I?

Global Positioning System

Latitude: 40 N

Longitude: 110 W



Who uses GPS?



Use GIS & GPS for fun too!



You can use GIS and GPS too!



GIS is for thinkers!

Use it to answer questions...

Think about a topic or a place

Ask a question about it

Make a map

Perform analyses

Ask a new question



Your turn!

1) Use ArcExplorer to find Los Angeles

2) Find your school



3) Drive/Fly to Disneyland

4) Find out what has changed over time?

Pop Quiz

1. What is your favorite part of GIS?
2. What does “Geo” stand for?
3. What can you do with GIS?

Use it every day!

GIS is for:

Mapping

Decision making

Planning our future

AL - the GIS Guy!

