Remote Sensing Interactive URL List

The Exploratorium's Online Exhibits - http://www.exploratorium.edu/exhibits/f_exhibits.html

Procedures

- Some displays require that you scroll down to bottom to read instructions AND explanations of what's happening. Others fit on a single screen.
- Work in teams, but ***change operators*** for each game or activity

Seeing exhibits - Red

- Bird in a Cage
- Changing Illusions (5 images)
- Mix-n-Match - scroll down to read directions
  - Make these colors
    - Yellow
    - White
    - Magenta
    - Cyan
  - Change background to match one of the circles you've created
- Sliding Gray Step
- Cafe Wall Illusion
- Depth Spinner & Squirming Palm (both take practice)

Mind Exhibits - Blue

- Droodles (2 sets of 4 each) - 1 team member can draw one picture, decide on which before click, then take turns drawing
- Don't Forget (4 memory games)
  - Teams work against each other
  - Which team remembers most of the objects from each group
- Common Cents *(fun, but only if time allows)*

Life Science - Green

- Which embryo is human?
- Frog Tracker (listen to different frogs)
- Play Fastball

Matter / World - Purple (OK only if have time or during breaks)

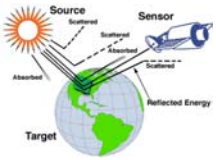
- Scientific Slugger - change angle, speed of pitch ...
- Bronx cheer (see vibrations)
- Interference
  - Tone Memory
  - Wave Machine
  - Distilled Light

NASA's Observatorium - http://observe.ivv.nasa.gov/nasa/education/gis/opening.html

- Better Living Through Geospatial Analysis - An Introduction
- Remote Sensing: A Non-Contact Sport - A Tutorial
- Go through BOTH sections.

NASA's Observatorium - http://observe.ivv.nasa.gov/nasa/education/reference/orbits/orbits.html

- Read & scroll through page (you don't need to click into the Kepler page)
- Continue (4 pages) until you reach the Multispectral RS page where you will see the following graphic



- Click on spectrum in the 2nd to the last paragraph (' because different objects on the Earth reflect sunlight differently in different parts of the **spectrum**')
- Click on ***Back***
- Click on ***Next Topic***
- Answer the 2 questions toward the bottom of the screen while checking the image
- Move on to another URL

Interpreting IR Imagery - http://cimss.ssec.wisc.edu/wxwise/satir

- Practice adjusting the sliders on the right to adjust cloud height & temperature.
- Note the difference in the extracted picture on the left.

Earth View - http://www.fourmilab.to/cgi-bin/uncgi/Earth

- Practice changing the:
  - Display: Map, From Sun, From Moon, Night side
  - Latitude / Longitude / Altitude in km
  - Choose a different satellites (dozens to choose from)
  - Image: Living Earth®, Topo map, Clouds, IR clouds, Colour weather
  - Time: Now, UTC, Julian
  - Image size: pixels, No night
- Remember, after making a change you MUST click on Update to initiate the change.

GOES Imager Tutorial - http://www.cira.colostate.edu/ramm/newgoes/gimgrtoc.htm

Skip the Introduction & Features and Imager Characteristics

Begin your review with ***Channel 1*** (note differences between the images) & continue through the 5 channels

Individual Imager Channel Discussions and Examples

- Channel 1, visible (VIS)
- Channel 2, short-wave infrared (IR)
- Channel 3, water vapor (WV)
- Channel 4, long-wave/window IR
- Channel 5, low-level water vapor/split-window IR

Derived Products

- Night-time Fog
- Day-time Reflectivity
- Fire Detection
- Volcanic Ash Detection
- Upper-level Winds
- Image Averaging

Bringing Images from Space -

http://kids.msfc.nasa.gov/Sites/ExternSite.asp?url=http%3A%2F%2Fdeepspace%2Ejpl%2Enasa%2Egov%2Fdsn%2Ftutor%2F

- After info & picture load on right, click on ***Next*** to proceed through the approximate 9 pictures.

The Online Remote Sensing Guide -

http://ww2010.atmos.uiuc.edu/(Gh)/guides/rs/sat/home.rxml

- Read page
- Click on ***Satellites***
- Then, click on ***GOES Satellites***
- Continue through ***Interpreting Satellite Images***

Seeing Our World in a Different Light - http://sirtf.caltech.edu/Education/IRapp/benefits.html

- Read & scroll through page
- Click on the IR image on the left / Click on the Back button
- Then click on Electromagnetic Spectrum & review
- Click on "Quiz Me!" about this topic!
- Each team MUST have Ms. Mundon, Ms. Dozier, or Ms. Pollard see the results before they move on to another URL.

- Complete Quiz as a team
- Which team succeeds first

Remote Sensing: Learning without Touching -

http://observe.ivv.nasa.gov/nasa/exhibits/learning/learning_0.html

- Read & click through 6 screens (Last display shows 'This 3-D visualization of Hurricane Andrew was produced from GOES satellite data.' at the end.

Third from the Sun - http://www.exploratorium.edu/learning_studio/landsat/index.html

- Read & click through the ***Introduction*** - Click on ***NEXT*** to proceed.
- Read & click through the ***LANDSAT Info*** (5 screens) - Click on ***NEXT*** to proceed.
- Read & click through the ***Geographical Features*** - This is a Quiz. How did your team do?

- Complete Quiz as a team
- Which team succeeds first
