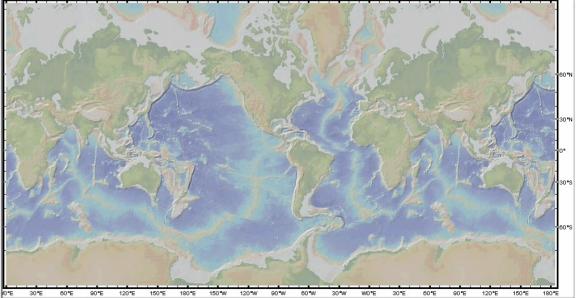
Learning Science Research

Investigator: Sandra Swenson, Teachers College doctoral student

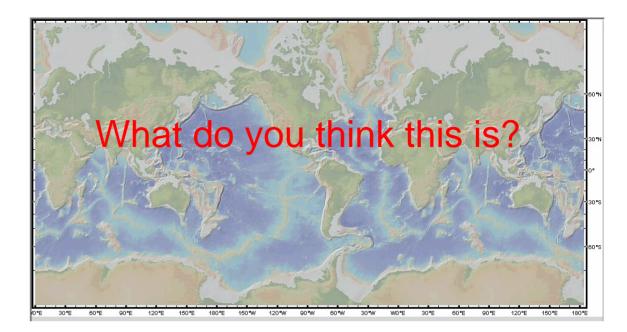
Participants: 120 total: 8th, 10th, 12th graders

Questions:

- What do you think this is?
- How do you think this was made?
- What do you think this is useful for?



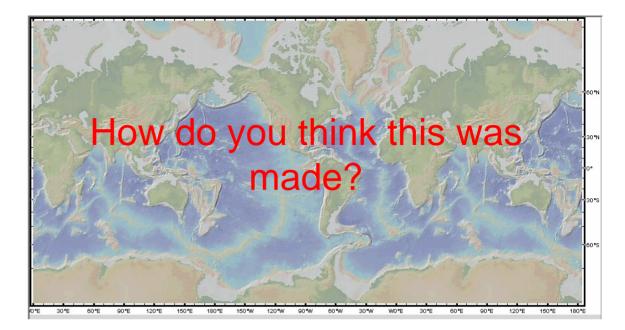
8th grade Earth Science students, spring 2005



- geographical map (15)
- world map (20)
- underwater features (13)
- topography (29)
- depth of water "dark area is higher"
- plate boundaries (3)
- geological map (3)

- "shows temperature by different blue colors"
- shows where there are high levels of sodium (for fishing)"
- "a map showing tides"
- world climates (e.g. white near N. pole is snow and glaciers)"

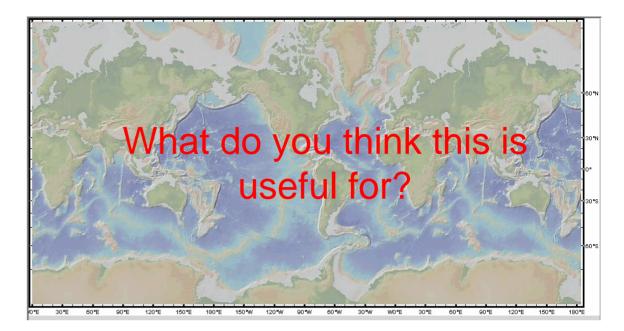
9th grade Honors biology students, spring 2005



- "made by a computer" (4)
- topographic survey by satellite (4)
- "taking two pictures of the earth and sticking them together"
- "I don't understand this question"
- "using data and analysing it over a period of time"
- "dating rocks in the ocean to find location"
- "instruments that measure depth"

(Not one student of the 120 mentioned "ship" or equivalent.)

12th graders, A.P. science, spring 2005



- "describing or displaying different parts of the world"
- "visualizing the continents"
- "understanding dynamics of Earth's crust movements of tectonic plates"
- "predicting earthquake threats"
- "oil drilling rigs"
- "weather, water current patterns"
- "water temperature"