STUDENTS ASSESSING GEOLOGIC HAZARDS USING ONLINE TOOLS

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“The geologist…may consider it good luck if he can glimpse a rock exposure once or twice a day.”

-David Dale Owen (1852)

Describing field mapping in Iowa
Challenge Teaching Geology in Midwest

Photo by K. Gray
Challenge Teaching Geology in Midwest

usgs.gov

iihr.uiowa.edu
Online Geoscience Resources

Geologic Information Portal

The Washington Geologic Information Portal puts complex geologic and hazards information into the hands of everyone, including you. This application allows you to quickly compare and synthesize data of different types to help solve a variety of problems. Enter the Portal by clicking the icon below.

www.dnr.wa.gov/geologyportal

Interactive Maps & Geospatial Data

DOGAMI’s interactive maps, GIS data, and map services help Oregonians better understand our state’s geology and geologic hazards.

Interactive Maps

www.oregongeology.org/gis/
Hazards Project – Assigned Tasks

• 3-4 Students per Group
• Tasks:
  • Describe Geography/Geology
  • Assess all hazards
  • Identify #1 Need
  • Propose a solution
• Products
  • Group oral presentation
  • Individual Papers
Hazards Project – Hazards Assessed

- Bedrock Geology
- Seismic Hazards
  - Shaking
  - Liquefaction
  - Tsunami
- Public Building Safety
- Volcanic Hazards
- Landslides
- Coastal Erosion (Oregon)
- Floods (FEMA)
Grays Harbor

Population
• County = 72,697

1 Hospital
• 140 Beds

13 Fire Stations
22 Schools
Your Task

• Review Hazards (Maps)
• Biggest Risk
• 1 Solution
Bedrock Geology

Ocean Shores

Aberdeen

Hoquiam

Westport

Bedrock Geology
Predicted Shaking - 9.0 Cascadia Quake

Seismic Shaking - 9.0 Cascadia Quake

Study Area

Seattle
Liquefaction Hazards
Liquefaction Hazards

Tsunami Inundation Zone

Ocean Shores

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Westport
Ocosta Elementary

Questions?