Living on the Edge:
Building Sustainable Communities at Active Plate Boundaries

A QUEST 2014 professional development workshop for middle and high school teachers

Laurel Goodell, Dept. of Geosciences, Princeton University

Monday July 7 Introductions, Overview of Risk and Plate Tectonics

- Introductions and overview
- Pre-Quest surveys and questionnaires
- Introduction to Risk and the Risk Equation
- Using Google Earth to Explore Plate Tectonics (LG's SERC exercises)
- Characteristics of Plate Boundaries
- Teacher Talk*

Tuesday, July 8 Transform Plate Boundaries

- Teacher Talk*
- Characteristics of Transform Plate Boundaries
- Determining earthquake probabilities (Integrate Unit 1a)
- Evaluating of San Francisco school sites for seimic risk (Integrate Unit 1b)

Wednesday, July 9 Divergent Plate Boundaries, Intro to Independent Project

- Characteristics of Divergent Plate Boundaries
- Hazards at Divergent Plate Boundaries (Integrate Unit 2a)
- Jelloea activity
- Risk at Divergent Plate Boundaries (Integrate Unit 2b)
- Independent projects – choose your location, preliminary research

Thursday, July 10 Convergent Plate Boundaries, Independent Projects (cont.)

- Teacher Talk*
- Characteristics of Convergent Plate Boundaries
- Mini-lecture on types of volcanism
  Aka "Recipes for Making Magma"
- Hazard and Risk at Convergent Plate Boundaries (Integrate Unit 3)
- Re-grouping of Independent Projects into Small Group Projects, based on plate boundary type.
- Preparation of Friday presentations.

Friday, July 11

- Preparation and presentation of Small Group Projects
- Assessments
- Teacher Talk*
- Summation and final assessments
- Closing "ceremonies"

*Teacher talk lead by Martha Friend, QUEST Lead Teacher, focused on Next Generation Science Standards and classroom applications of the week's curriculum.