Make Your Own Earthquake

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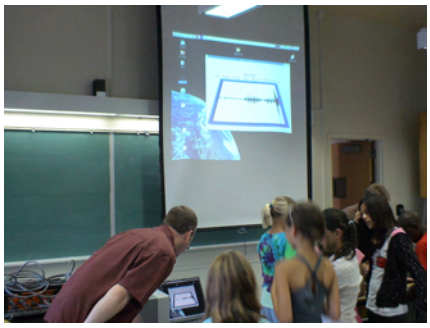
Abstract

Make Your Own Earthquake (MYOE) is a K-6 outreach activity developed by NEES@UCSB. MYOE is presented at local elementary schools and demonstrated at our facilities.

Make Your Own Earthquake consists of a Kinemetrics Episensor accelerometer and Q330 datalogger, a laptop computer, and a laser printer. NEES@UCSB has developed the MYOE software. The accelerometer is placed in the classroom and the laptop is nearby. The computer prompts each student to type his / her name and then counts down from until the student is instructed to "Jump!". During 10 seconds of jumping, the record of the vertical channel is displayed on the laptop. This record is printed with the student's name. MYOE is a very popular activity and as many as 400 students participate in one session.

In the next year, we will make MYOE a NEES network-wide activity. Instead of expensive field equipment, MYOE will record with Quake Catcher Network (QCN) accelerometers. This accelerometer is a USB device that costs $49 and plugs into any laptop. NEES@UCSB is developing the software for Make Your Own Earthquake using the QCN sensor. We will test the activity and write and film a tutorial that will explain the set up and its use. This software and the tutorial will be available on the NEESHub website.



Make Your Own Earthquake

- **Objective:** Students create their own earthquake by jumping. They gain an understanding of how the shaking from earthquakes is transmitted through the ground.
- **Target:** K-6 elementary-age students.
- **Description:** An accelerometer is attached to a Kinemetrics Q330 digitizer. Acquisition software and a graphing routine run on a laptop. Students type their names and jump for 10 seconds. They receive a personal printout of the record on the vertical channel.
- **The Future***: A NEES network-wide EOT initiative!*
  A USB sensor is available for $49 from the Quake-Catcher Network at http://qcn.stanford.edu/learning/requests.php

NEES@UCSB will provide the software and training information for **Make Your Own Earthquake**

A NEES network-wide EOT initiative!

The equipment setup with laptop computer, laser printer, Q330 datalogger and accelerometer.

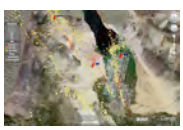


The working Geotech Instruments Model S-13 is housed in a plexiglass case.

Quotes from parents:

"What a great way to learn how earthquakes are measured. The 'test' sparked a ton of questions and the kids wanted to do it over and over."

"This was a fabulous way for kids to use their whole bodies and engage their minds. It really showed them how scientists measure earthquakes and let them go home with a cool reminder of their experience."

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