

EarthScope Chronicles: Sharing Scientists' Stories and Media Rich Earth Science Investigations (http://serc.carleton.edu/earthscope_chronicles/index.html)

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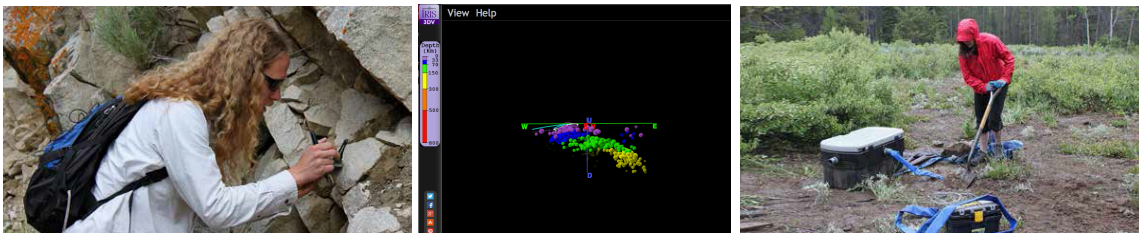
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TERC and McLean Media are collaborating to develop five media-rich teaching modules that highlight the work and personal stories of EarthScope scientists and engage students in grades 7-12 in data-based investigations connected to the scientists' research. These modules include compelling videos that feature interviews with scientists and footage of them conducting EarthScope research. Data-based investigations connect STEM classroom content to current, real-world scientific research. We use a variety of technology tools, including image analysis and geographic information systems software plus other earthquake-data specific tools, such as the USArray Ground Motion Visualization viewer.

Resources for EarthScope investigations and modules include visualizations, data and data products, images, animations, video clips, audio interviews, websites, PowerPoint presentations, text documents, and more. These resources come from the EarthScope program, the Incorporated Research Institutions for Seismology (IRIS), the United States Geological Survey (USGS), and others. Our investigations and modules under development are congruent with the Next Generation Science Standards (NGSS). Most of our resources are in the public domain and are likely to remain relatively stable over time, helping to ensure long-term usability and sustainability of our modules. Modules currently under development include: 1) *What is EarthScope? – Observatories and Research Projects*; 2) *Understanding Earthquakes*; 3) *Seeing into Earth with Seismic Waves*; 4) *Visualizing Volcanic Activity*; and 5) *Earth's Dynamic Crust – Exploring and Analyzing Change Over Time*.



EarthScope researchers in the field and IRIS 3-D Earthquake Viewer showing Earthquakes by depth in the subduction zone off the coast of South America.

To increase EarthScope's visibility within the educational community and the public at large, individual media resources from the modules, including video clips, image sets, and e-books, will be distributed through online digital libraries and social media sites such as TeacherTube, YouTube, Vimeo, and STEM Stories. NGSS show a focus on careers and on the human aspects of scientific discovery. EarthScope Chronicles media resources feature the personal stories of individuals involved in Earth science research projects. They combine interviews and footage of data gathering and research methods used in the field and lab to highlight the people behind the ideas and to provide strong career role models for middle and high school students. These media resources are now available on YouTube.