The Earth in a Day: lessons and ideas from a geology workshop for pre-service teachers with no access to geoscience courses

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Next Generation Science Standards include a focus on Earth and Space Science at every grade K-12. In fourth grade, for example, teachers are expected to cover plate tectonics, natural hazards, and erosion—essentially a miniature introductory geology course. Many elementary teachers, however, have limited undergraduate exposure to geoscience and feel inadequately prepared to teach it (Banilower et al., 2013).

Here we present lessons, ideas, and observations from a full-day geoscience workshop for pre-service teachers at Gonzaga University (which has no geoscience department). Pre-service teachers were introduced to foundational topics in the geosciences through hands-on activities and provided with K-6 lesson plans for each activity. Pre-service teachers were taken on a field trip of local geologic features which were used to illustrate the geologic history of the region. This one-day workshop model is easy to implement and requires less involvement than creating a semester-long geoscience education course. Data will be reported on pre-service teachers' assessment of their preparedness to teach earth science. Banilower, E. R., et al. (2013). Report of the 2012 National Survey of Science and Mathematics Education. Chapel Hill, NC: Horizon Research, Inc.

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