Steps in the Process:

1. Identify themes that define the questions in which GER operates and provide a comprehensive guiding framework to
   focus future GER on questions of high interest to the geosciences.
2. Complete a thorough review and analysis of best practices in teaching and learning in the geosciences, based on
   research identified as effective in supporting students' affect, apply the skills and ways of thinking in the geosciences
   along the expert-novice continuum.
3. Use the best practice guidelines to create new knowledge about the Earth.
4. Develop a comprehensive and shared understanding of the Earth, and how can geoscience education move
   students toward these understandings?
5. Establish evidence-based instructional strategies to improve geoscience learning, and to increase the
   collaborative potential of GER in the geosciences and in STEM education research.

GRC #2: What is the interplay between on campus interdisciplinary learning opportunities and national
opportunities that are most effective?

GRC #2: How can undergraduate geoscience instruction benefit from effective research-based practices in
educational research?

GRC #2: How can we best prepare future K-12 teachers to engage in earth and space science to promote
3-dimensional thinking as described in A Framework for 6-12 Science Education Practice, Crosscutting Concepts,
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GRC #2: What can we learn from the current growth of geoscience instructor ability to teach 3-dimensional
thinking to move students toward these understandings in other domains?

GRC #2: How can we better engage learners as co-creators and collaborators in teaching?

GRC #2: How can we most effectively disseminate and promote relevant research findings and best
practices in geoscience instruction?

GRC #2: What are the most useful ways to disseminate results on solid earth student understanding, e.g.,
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