

about the authors

The original version of *The Good Earth* was a product of a team of educators from the geosciences, science education, and cognitive psychology whose combined expertise created this text to teach essential earth science content in an engaging and cognitively supportive way. We wish to thank our colleagues Kathie Owens, Cathy Knight, and Lisa Park to their contributions to the textbook through the first two editions. The writing team has been reduced to the two principal authors for the third edition of the book.

David McConnell grew up in Londonderry, Northern Ireland, and was hooked on geology when he took his first course in high school with an inspirational teacher. His earliest geological exercises involved examining rocks along the rugged coastlines of Ireland. He graduated with a degree in geology from Queen's University, Belfast, before moving to the US to obtain graduate degrees from Oklahoma State and Texas A&M Universities. David spent much of his career at the University of Akron, Ohio, where he met David Steer, beginning a research partnership that eventually resulted in the book you are now holding. David relocated to North Carolina State University to build a geoscience education research group that continues to examine how to improve the student learning experience in large general education science classes.



David has taught a dozen different courses from introductory geoscience classes to advanced graduate courses. He has received several teaching awards, and he and his collaborators and graduate students have made many presentations and published articles on their educational research. When pressed for some personal information, David will tell you that he loves collecting vinyl records, is way too attached to Tottenham Hotspur football club, and enjoys spending weeks each summer hiking trails through a mountain range somewhere.

David Steer was fascinated with rocks as a child in Ohio. That interest was nurtured by his participation in a National Science Foundation–sponsored geology field camp for high school students that took him to the Black Hills of South Dakota. David's plan to become a geologist had to wait when he accepted an appointment to West Point and then served for a decade as an Army Corps of Engineers officer. While in the military, David attended Cornell University, earning a Master's of Engineering degree. He was then assigned to West Point Military Academy, where he taught physics. After leaving the service, David returned to Cornell University to pursue his early geological interests at the Ph.D. level, albeit in the field of geophysics. He began his appointment at the University of Akron in 1999.



Several years ago, David began employing student-centered learning techniques in his large introductory earth science classes. He has extensive experience in using conceptual questions, physical models, and other active learning techniques. His education research, allowing him to identify at-risk students very early in the course so that effective intervention can occur, has produced scholarly publications in the *Journal of Geoscience Education* and numerous national and regional conference presentations. David has been recognized for his extensive research and teaching scholarship at the institutional and national levels. He and David McConnell were recognized together as National Association of Geoscience Teachers Distinguished Speakers and travel the country making presentations about their educational research.

On a more personal note, David frequently experiments with using golf clubs as seismic energy sources and travels the country with his family with a goal of visiting every national park in the continental United States. David brings military discipline to the team and is one of the principal geoscience content writers. David made this comment about his participation: “Writing this text has been both rewarding and humbling. That endeavor constantly reminded me how much I still have to learn about our planet.”

Contributing Authors

Catharine Knight originally hails from Minneapolis, Minnesota. Cathy began her career in teaching while a teenager, achieving national recognition in training her Shelties for obedience competition. Cathy has become an expert in effective teaching and learning, and in cognitive support of learning for humans, as well. With a master’s degree and clinical certification in speech science and audiology from St. Cloud State University, Cathy brings a facility in the concepts of “hard science” to the science of learning and teaching: pedagogy. Her Ph.D. research in educational psychology and human development at Arizona State University and her research in cognitive development as a postdoctoral National Institutes of Health Research Fellow at the University of Denver began her dedication to making the science of cognitive development accessible, practical, and applicable to teachers and instructors in the real world.



She has devoted more than 25 years to the study of how students learn and develop, and how instructors can effectively teach, given the characteristics of both students and the concepts and content to be learned. This collaboration of earth science and pedagogical science results in a powerful tool to support teaching and learning in fundamentally new and excitingly effective ways.

When Cathy can grab some spare time from teaching, research, and writing, she kicks back with her Shelties or her cello, or best of all, on a Caribbean cruise ship where the only “requirement” is to do nothing!

Katharine Owens or Kathie, as she’s called informally, is the other education member of the team. Kathie says that being a member of *The Good Earth* writing team is one of the highlights of her long career in education. Kathie started out teaching mathematics in junior high and, after getting her master’s degree in science education at Texas A&M University where she learned a lot of geology, quickly found another love—teaching science in middle schools both in New York State and in Mississippi (Ed.D., University of Southern Mississippi). She reports that her interest in science began when she watched the *Apollo 8* astronauts circle the moon and greet everyone on “the good Earth” from their vantage point millions of miles away. When she was chosen as a Mississippi finalist in the Teacher in Space program and later as a Christa McAuliffe Fellow, she knew that for the rest of her teaching career, earth science would dominate. Currently, Kathie focuses on teacher education in science at the University of Akron, where she teaches methods courses to future teachers and develops science and technology lessons for the Akron Global Polymer Academy.



Kathie is convinced that how a subject is taught is equally as important as what is taught and that, if the instructor’s methods make the content dull and boring or the students are not challenged to think through the content, much is lost. When she’s away from her teaching job and education projects, she’s traveling around the United States to add to her rock collection, tending her garden, playing with her grandchildren, or whipping up some goodies in the kitchen.