

# About Us



This set of instructional materials was developed through a partnership between [TERC](#) in Cambridge MA, and the [Cary Institute for Ecosystem Studies](#) in Millbrook NY, funded by grants from the [National Science Foundation](#).

TERC is a not-for-profit education research and development organization. For the last 48 years, TERC has focused on innovative and technology-rich advancements in math and science learning and teaching. TERC works at the frontiers of theory and practice to contribute to a deeper understanding of learning and teaching; enhance instruction through teacher professional development; develop applications of new technologies to education; create curricula and other products; and support reform in both school and informal settings.

Founded in 1983, the Cary Institute of Ecosystem Studies is one of the world's leading independent environmental research organizations whose mission is the creation, dissemination and application of knowledge about ecological systems. For nearly thirty years, the Institute's PhD-level scientists have been investigating the complex interactions that govern the natural world. Their objective findings lead to more effective policy decisions and increased environmental literacy.

A team of principal investigators, Gillian Puttick, Brian Drayton, Alan Berkowitz, and Steward Pickett, led the development team. Curriculum developers were Marlene Cole, Meaghan Donovan, and Jeff Lockwood, while administrative and research assistance was provided by Sara Hill, Tara Robillard, and Rachel Hayes.

The following teachers piloted or field-tested the curriculum:

- Marcia Bisnett, Miami Norland Senior High School, Miami FL
- Daniel Bryant, Incarnate Word Academy, Houston TX
- Josie Cain, Harrison High School, Harrison NY
- Vince Case, School on Wheels Alternative High School, Albuquerque NM
- Beth Cochran, Manchester Regional High School, Haledon, NJ
- Michele Cook Cadillac High School, Cadillac MI
- Joanne Coons, Shenendehowa Central Schools, Clifton Park, NY
- Sarah Cramer, Lincoln High School, Lincoln MO
- Karl Dreyer, Roosevelt Alternative High School, Rockford, IL
- Barbara Engle, Blue Ridge High School, Lakeside AZ
- Grant Euler, Arvada High School, Arvada CO
- Sandra Fischer, Chatham High School, Charham NY
- Ken Gracz, Andrews High School High Point NC
- Scott Havice, Fremont Ross High School, Fremont OH
- Susan Hieter, International School of Aruba, Oranjestad, Aruba
- Chris Hinz, East Troy High School, East Troy WI
- Nick LaFave, Clover High School, Clover SC
- Huck Laughner, Green Farms Academy, Westport CT
- Christine Lauer, Woodstock High School Woodstock GA
- Marcy McKinley, Duanesburg High School, Delanson, NY
- Carol Mutchler, Wilmington High School, Wilmington, MA
- Benjamin Nims, Maplewood Richmond Heights High School, Maplewood, MO
- Wendy Perkins, John Handley High School, Winchester VA
- Susan Pike, St Thomas Aquinas High School, Dover NH
- Kathleen Quinn, Huntingdon Area High School, Huntingdon PA
- Mark Richards, St Paul's School, Covington LA
- Meg Schneider, Attleboro High School, Whitinsville, MA
- Korrin Schriver, Messmer High School, Milwaukee WI
- Emily Sherman, Scarborough High School Scarborough ME
- Tim Surine, Highland High School, Riverside IA
- Matthew Talbot, Somerset High School, Somerset, MA
- Bill Thrasher, Whitman Hanson Regional High School, Whitman, MA
- Maria Toyos, Archbishop Coleman F. Carroll High School, Miami FL
- Teresa Tucker, Northwest High School, Jackson MI
- Jim White, Boston Collegiate Charter School, Boston, MA
- Abby Wood, Rocky Hill School East Greenwich CT
- Alex Velardi, North Haven High School, North Haven CT
- Jim Zlomke, Cheyenne east High School, Cheyenne WY

TERC and the Institute of Ecosystem Studies are designing *Biocomplexity and the Habitable Planet*, a set of instructional materials that integrates human interactions as components of natural systems, and supports students to engage in authentic investigations of systems phenomena. Four units provide for a yearlong capstone course in ecology/environmental science, while individual units can be used as replacement units. *Biocomplexity* consists of inquiry-oriented field and lab investigations designed around cases in urban, agricultural, tropical and polar systems. Students address environmental land use challenges increasingly confronted by society, choosing solutions, and marshaling arguments and evidence to defend their choices. They model relationships among components in systems qualitatively and quantitatively, and use their models to make predictions. The nature of the material lends itself to a range of student competencies. Provided data sets are rich enough that students with advanced mathematical skill can test new questions and conduct analyses.

Extensive and practical teacher materials increase teachers' content knowledge and support instructional strategies that promote learning the key ideas. Community materials serve to develop strong ties between school, parents and communities. As a capstone course, the materials will meet the needs of districts adopting Physics First particularly well.