### resources

# The Earth Science by Design Program

## Earth Science by Design brings Understanding by Design to Earth Science.

Developed by TERC and the American Geological Institute with funding from the National Science Foundation, ESBD is a year-long program of professional development for middle or high school teachers based on the Understanding by Design approach pioneered by Grant Wiggins and Jay McTighe. ESBD has been field-tested by staff developers in eight sites nationwide.

#### ESBD helps teachers:

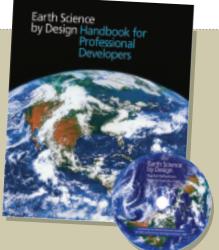
- Teach for deep and enduring understanding of the "big ideas" in Earth science
- Use "backward design" to create curriculum units and lessons that are engaging, rigorous, and aligned with national, state, and local standards
- Design effective classroom assessments and rubrics
- Incorporate powerful web-based Earth science visualizations and satellite imagery into an Earth system science approach

# A Complete Professional Development Package for staff developers, including:

- The ESBD Handbook—everything you need to offer the program, including detailed workshop lesson plans
- The ESBD Web Site—where you can advertise your program, register your teachers, and where teachers can develop curriculum units online
- Online resources for Earth science teaching and learning
- PowerPoint presentations for workshops
- DVD video of teacher reflections

### Workshops for teachers and leaders:

• TERC offers leadership workshops to support staff developers in the implementation of ESBD



### FIND OUT why teachers said:

"I will never teach the same way again."

"ESBD helped me become the teacher I thought I was."

"I have had a major paradigm shift... I have been teaching for 25 years, and this is the most logical design I've seen."

### For more information on workshops or to order your ESBD package contact:

Harold McWilliams *Principal Investigator and Project Director* harold\_mcwilliams@terc.edu 617.873.9673