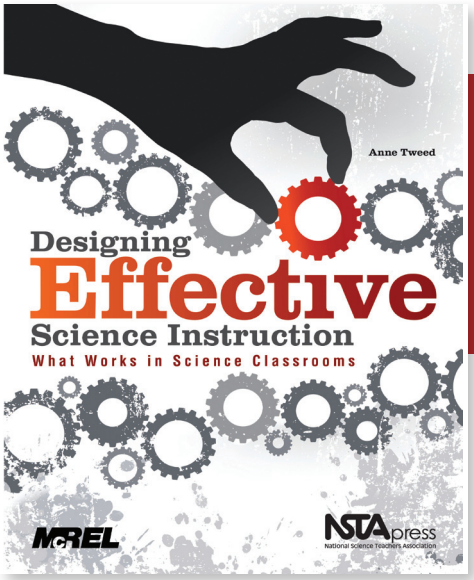

DESIGNING EFFECTIVE SCIENCE INSTRUCTION:
What Works in Science Classrooms

Make a real and lasting change in your classroom. Use research-based instructional strategies to help increase the quality of science instruction and student learning.

Professional development that aligns with the Next Generation Science Standards

In response to an international need to increase K–12 student achievement in science, McREL has developed Designing Effective Science Instruction, a customizable professional development program to improve the quality and delivery of science lessons.

Instructional practices are modeled using the new **Next Generation Science Standards**, and teachers will learn an instructional framework that can be used immediately to guide powerful lesson designs.

- Explore the CUES instructional framework, which addresses content and student understanding to improve the quality of science instruction and lessons.
- Learn research-based teaching strategies that are linked to increased student achievement.
- Discover how to build student engagement and motivation through positive classroom environments.
- Create professional development plans to sustain and continue improvements.
- Network with others to learn and exchange strategies for teaching diverse learners.

Bring this outstanding workshop for teachers and administrators to your school, region, or state

For more information, contact:

Anne Tweed
atweed@mcrel.org
303.632.5528

www.mcrel.org

DESIGNING EFFECTIVE SCIENCE INSTRUCTION FRAMEWORK

Identifying Important CONTENT	
Strategy 1:	Identifying Big Ideas and Key Concepts
Strategy 2:	Unburdening the Curriculum
Strategy 3:	Engaging Students with Content
Strategy 4:	Identifying Preconceptions and Prior Knowledge
Strategy 5:	Developing Assessments: How Do You Know that They Learned?
Strategy 6:	Sequencing the Learning Targets into a Progression
Developing Student UNDERSTANDING	
Strategy 1:	Engaging Students in Science Inquiry
Strategy 2:	Implementing Formative Assessments
Strategy 3:	Addressing Preconceptions and Prior Knowledge
Strategy 4:	Providing Wrap-Up and Sense-Making Opportunities
Strategy 5:	Planning for Collaborative Science Discourse
Strategy 6:	Providing Opportunities for Practice, Review, and Revision
Creating a Learning ENVIRONMENT	
Strategy 1:	Believing All Students Can Learn
Strategy 2:	Thinking Scientifically
Strategy 3:	Developing Positive Attitudes and Motivation
Strategy 4:	Providing Feedback
Strategy 5:	Reinforcing Progress and Effort
Strategy 6:	Teaching Students to be Metacognitive