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

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## 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