



Project CRISS Supports National Science Standards

By Cindy McCloud

In 1995, the National Research Council developed a set of rigorous standards for science designed to provide guidance on how teachers and students should teach and learn at all grade levels. The standards are arranged in **six categories**: teaching, professional development, assessment, content, education programs, and education systems. Because support for strategy instruction is evident throughout the National Science Standards, Project CRISS is a logical choice to aid science teachers in their instruction.

Though the National Science Curriculum has been in the hands of educators for over a decade, the National Assessment of Education Progress (NAEP) **science scores** over the same decade indicate a nation of public school children who are still struggling in the area of science. Over the past ten years of NAEP assessment, in none of the tested grades did more than one-third of the students score at or above **Proficient**.

The National Science Standards provide a rigorous framework for science instruction, but having a framework is not enough to ensure the success of students. What must educators do to aid students in mastering science concepts in their curriculum? The foundational Principles and Philosophy and the strategies provided by Project CRISS give teachers the tools they need to teach science within the National Science Standards. More importantly, the CRISS Principles and Philosophy and strategies give students the ability to master science curriculum and to become independent learners and critical thinkers in the scientific realm.

Embedded in the teaching standards is the assumption that teachers greatly influence students by the way they provide instruction. The foundational Principles and Philosophy of Project CRISS emphasize a research-based instructional focus, which includes teacher explanation, modeling, and teaching for understanding.

In addition, the National Science Standards call for students to be actively involved in constructivist learning, both individually and through interaction with peers. The research base on which Project CRISS is built supports this type of student discussion and writing as a means to comprehension.

Additionally, the National Science Standards assert that the teaching and assessment strategies the teacher selects need to support students as critical thinkers and active learners. Project CRISS does exactly that. Students are taught to be metacognitive in their learning through an awareness and use of background knowledge, purpose setting, active learning strategies, organizing strategies, and attention to the author's craft.

As teachers continue to strive for excellence in the area of science instruction, Project CRISS provides a research-based framework within which teachers may teach and students may learn. A keynote of science is critical and independent thinking. What better tool is there than Project CRISS to Create Independence through Student-owned Strategies?

Web links, as of 3/07.

Six Categories: <http://books.nap.edu/readingroom/books/nses/overview.html>

Science Scores: http://nationsreportcard.gov/science_2005/s0104.asp

Proficient: <http://nces.ed.gov/nationsreportcard/science/achieveall.asp>

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