

## WHO NEEDS SPIR?

District Coordinators, Curriculum Specialists, Principals and Superintendents with interest in providing an exemplary science instructional program will consider NSTA's topnotch evaluation and assessment process to build student achievement.

### WHY?

Administrators need a benchmark for excellence in their science program. NSTA, through SPIR, works with a district or school's leadership to assess, then build a strategic roadmap for the school/district toward a research-based, science program.

### WHAT IS IT?

Based on NSTA's definition of program excellence and best practices, SPIR is a standards-based, comprehensive assessment with recommendations for improvement.

### HOW IS IT ACCOMPLISHED?

Our trained, expert reviewers collaborate with your administrators and school leaders to gather data for assessment and evaluation. Measuring your program against the NSTA standards gives leverage to the leadership to bring consensus to all participants for change.

### WHERE?

Site visits are scheduled in your district offices and sample schools.

### WHEN?

NSTA provides a one year matrix covering assessment tasks, required personnel and time needed per task with materials due dates.

### HOW MUCH DOES IT COST?

SPIR fees are determined by the unique needs of the client and can be negotiated to support those needs. The base fee of \$15,000 for one school review includes work with district/school leaders, surveys of key stakeholders, on-site observations of up to 8 classrooms, focus groups and the final report with recommendations. Most districts choose to sample more than one school.

The cost of a district review depends on the size of your district and decisions you make about how many schools will participate in on-site classroom observations and focus groups. NSTA staff will guide you through the rationale and process for picking a sample of schools that will receive on-site observations. During that process, the costs can be negotiated while the benefits and constraints are considered.

Visit [www.nsta.org/spir](http://www.nsta.org/spir) for more details.

## SET THE RIGHT COURSE ON YOUR JOURNEY TO EXCELLENCE IN SCIENCE EDUCATION.

Visit [www.nsta.org/spir](http://www.nsta.org/spir) for more details on  
Science Program Improvement Review (SPIR)

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## SCIENCE PROGRAM IMPROVEMENT REVIEW ROADMAP TO EXCELLENCE

**NSTA** National  
Science  
Teachers  
Association



## SCIENCE PROGRAM IMPROVEMENT REVIEW

assesses the quality of a school or district science program against research and standards-based best practices. This service encompasses a comprehensive review of a school's science instructional program by expert reviewers with detailed reports and recommendations for improvement. Using NSTA's standards for high quality programs as a roadmap to excellence, SPIR helps administrators build on their current program to reach that which is exemplary.

NSTA believes that the essential elements of science education reform are aligning curriculum, instruction, and assessment with national, state, and local standards; implementing professional development with national, state, and local needs and objectives; and ensuring that an infrastructure is in place to sustain the program over time.

*"SPIR is the best tool I have found for improving the science program. By implementing the recommendations from SPIR, our students' science scores have dramatically increased. In fact, some schools that were in academic emergency have now been recognized as effective and excellent."*

**Thomas Suter, Director, Project REAL, Ironton, OH**

## TRAINED AND EXPERIENCED SCIENCE REVIEWERS

Nationally-known experts in science education, selected for their abilities to observe, articulate, and analyze are trained for the reviewing process. The team conducts the review through classroom observations, interviews, surveys, and focus groups. After compiling the data, a comprehensive report is created that measures the program against standards goals and provides recommendations for improvement and advancement.

## AREAS OF ASSESSMENT

- *Policy and administrative support of the science program*, including the status of comprehensive strategic plans, an organized and accountable leadership team, a rigorous curriculum and high-quality instructional materials, and adequate resource allocations.
- *Classroom implementation of the science curriculum*, which includes school leaders who provide guidance, support and

*"The Science Program Improvement Reviews have been very effective in helping the district and individual schools assess their current status in science curriculum and instruction. We have to know where we are before we can determine how far we have to go."*

**Nancy Wilcher, Instructional Supervisor, Lincoln County Schools, Stanford, KY**

accountability; instruction that results in student understanding; and a materials management system.

- *A culture of high expectations* (a) in science classrooms that contribute to positive attitudes and model scientific inquiry, (b) in a professional learning community among teachers, (c) in a curriculum and school environment that provides equitable access for all, (d) in assessment practices that promote learning and student responsibility, (e) for highly-qualified teachers for each science class, and (f) for an engaged school community.
- *Accountability* as shown in data-driven decision making at all levels and results that show most students succeeding in their science courses and more students showing an interest in science.

## ASSESSMENT REPORT

Comprehensive and annotated, this confidential report clearly identifies those areas for improvement and recommends areas for enhancing student learning opportunities. Data is organized around 15 practice-based standards and the instructional program is rated on rubrics for 3-4 objects for each.

## BENEFITS FOR YOUR SCHOOL OR DISTRICT

- **SPIR provides a benchmark assessment to inform your strategic planning.**
- **Administrators and teachers will be able to identify areas of strength and build on that competency.**
- **Administrators and teachers will identify areas of concern and implement a plan for improvement.**
- **Achievable goals aligned with state and national standards can be established.**
- **Science instruction can be aligned to current research in "best practices."**
- **A culture of learning can be established which supports improved teacher knowledge and skills.**
- **Your school community can be engaged and encouraged.**
- **Student science learning improves to meet NCLB requirements.**

## BCMCS'S ROADMAP TO EXCELLENCE

In support of their mission to deliver high quality mathematics and science education for the students of Michigan, the Battle Creek Math and Science Center conducted an NSTA Science Program Improvement Review (SPIR) and used the comprehensive report generated as the foundation for program improvement plans in three middle schools. Here is what BCMSC Director Connie Duncan says about the SPIR analysis and recommendations.

"The science staff at each school in our district are energized and focused. Having a plan in place with achievable goals has made a huge difference. The review recommended extra curricular activities to be put into place. We've found that kids are excited about science, teachers are comfortable teaching it, and parents are thrilled with the new after school opportunities for their children. In just one year our schools have implemented these after school activities — rocket clubs, science fairs, rock clubs, science sessions, and Saturday science for families. The NSTA SPIR program is an excellent way to identify strengths and challenges of district science programs. I highly recommend it for districts that truly seek honest feedback and assistance."

Duncan continued, "The SPIR reviewers were professional and knowledgeable. They were correct in their evaluations, listing both strengths and areas for improvement with matching resources. Having an unbiased evaluation as the basis for school science improvement has made all the difference in our area middle schools. They are now looking forward to their follow up review to measure the science program improvement and gains in student achievement. They are already celebrating!"

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