

Project 2061 American Association for the Advancement of Science

# Choosing Mathematics Textbooks:

Study of muddle schools raises troubling questions

**Help is Here** 

Thanks to extensive press coverage in such publications as *Education Daily*, *Education Week*, *Minneapolis Star-Tribune*, and the *Detroit News*, Project 2061's middle school mathematics textbook evaluation is already influencing adoption decisions around the nation. The findings, which were released to hundreds of newspapers through the Gannett and Reuters news wires and promoted on NPR's *Science Friday*, have generated substantial interest at education conferences across the country. Numerous teachers and parents have contacted Project 2061 stating that they are using the evaluation to help their districts choose texts.

Project 2061 released the results of its rigorous analysis of 13 middle school mathematics textbooks in January. The evaluation of middle school science textbooks will be released this summer. Only four recently published mathematics series rated highly, while nine other more well-established textbooks were rated unsatisfactory in promoting student learning. The top-rated texts, *Connected Mathematics*, *Mathematics in Context*, *MathScape*, and *Middle Grades Math Thematics*, all published within the last 18 months, are not yet widely used.

"The good news is that there are excellent math textbooks now available for middle school students," stated Dr. George Nelson, director of Project 2061. "It is imperative that these become the textbooks of choice in more classrooms if we are to reach our goal of developing students who are math and science literate."

Carnegie Corporation of New York funded the evaluation, which was directed by Project 2061 program director Gerald Kulm with the assistance of senior project associate Kathleen Morris and project coordinator Laura Grier. The analysis was conducted by independent teams made up of classroom teachers and college and university faculty. Using Project 2061's rigorous curriculum-materials analysis procedure, they evaluated textbooks on how likely they are to help students achieve six key learning goals from Benchmarks for Science Literacy. These benchmarks, two each in the core strands of number, geometry, and algebra, are consistent with the widely accepted standards developed by the National Council of Teachers of Mathematics.

#### WILL TEXTS HELP STUDENTS LEARN?

A key feature of the Project 2061 evaluation is its analysis of how successfully the textbooks supported teachers in their efforts to help students learn. The analysis teams reviewed specific instructional strategies that textbooks provide for each benchmark idea or skill. To *continued on page 3*  N O today

## Science Literacy for a Changing Future

Mathematics Natural Sciences Social Sciences Technology

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#### Criteria for Evaluating the Quality of Instructional Guidance

#### CATEGORY I

- Identifying a Sense of Purpose
- I.1 Conveying Unit Purpose
- I.2 Conveying Lesson Purpose
- I.3 Justifying Sequence of Activities

#### CATEGORY II

#### Building on Student Ideas about Mathematics

- II.1 Specifying Prerequisite Knowledge
- II.2 Alerting Teacher to Student Ideas
- II.3 Assisting Teacher in Identifying Ideas
- II.4 Addressing Misconceptions

#### CATEGORY III

- Engaging Students in Mathematics
- III.1 Providing Variety of Contexts
- III.2 Providing Firsthand Experiences

#### CATEGORY IV

#### **Developing Mathematical Ideas**

- IV.1 Justifying Importance of Benchmark Ideas
- IV.2 Introducing Terms and Procedures
- IV.3 Representing Ideas Accurately
- IV.4 Connecting Benchmark Ideas
- IV.5 Demonstrating/Modeling Procedures
- IV.6 Providing Practice

#### CATEGORY V

#### Promoting Student Thinking about Mathematics

- V.1 Encouraging Students to Explain Their Reasoning
- V.2 Guiding Interpretation and ReasoningV.3 Encouraging Students to Think about
- What They've Learned

#### CATEGORY VI

Assessing Student Progress in Mathematics

- VI.1 Aligning Assessment
- VI.2 Assessing through Applications
- VI.3 Using Embedded Assessment

CATEGORY VII

- Enhancing the Mathematics Learning Environment
- VII.1 Providing Teacher Content Support
- VII.2 Establishing a Challenging Classroom
- VII.3 Supporting All Students

### About the Textbooks

Review teams evaluated mathematics programs written specifically for the middle grades and focused on the printed student and teacher editions only. Some of the series are well established and are likely to be on adoption lists or already in use in many middle school classrooms. Others are more recently published materials that are just entering the market.

#### Satisfactory

Connected Mathematics. Dale Seymour Publications, 1998 Mathematics in Context. Encyclopedia Britannica Educational Corporation, 1998 MathScape. Creative Publications, 1998 Middle Grades Math Thematics. McDougal Littell, 1999 **Unsatisfactory** Mathematics Plus. Harcourt Brace & Company, 1994 Middle School Math. ScottForesman-Addison Wesley, 1998 Math Advantage. Harcourt Brace & Company, 1998 Heath Passport. McDougal Littell, 1996 Heath Mathematics Connections. D.C. Heath and Company, 1996 Transition Mathematics. ScottForesman, 1995 Mathematics: Applications and Connections. Glencoe/McGraw-Hill, 1998 Middle Grades Math. Prentice Hall, 1997

Math 65, Math 76, Math 87. Saxon Publishers, 1997, 1995

#### **Textbook Profiles**

The Project 2061 curriculum-materials analysis procedure generates a wealth of information about the textbook being evaluated. For example, the sample chart below provides a profile showing how one textbook scored on both content and instructional quality. Using these profiles, educators can draw some conclusions about what the textbook series can be expected to accomplish in terms of its potential for helping students to learn the selected mathematics content. The profiles may indicate that a textbook covers number skills well and provides thorough instructional guidance for teaching these skills yet does a poorer job of dealing with algebra concepts.

	Benchmarks					
	Number Concepts	Number Skills	Geometry Concepts	Geometry Skills	Algebra Graph Concepts	Algebra Equation Concepts
Content		•		•	O	•
Instructional Categories						
Identifying a Sense of Purpose						
Building on Student Ideas about Mathematics						
Engaging Students in Mathematics						
Developing Mathematical Ideas						
Promoting Student Thinking about Mathematics						
Assessing Student Progress in Mathematics						
Enhancing the Mathematics Learning Environment						

#### Content Scale for Selected Benchmarks

- Most content
- Partial content
- Minimal content

#### Instructional Categories Scale

- High potential for learning to take place
- Some potential for learning to take place
- Little potential for learning to take place
- Not present

### Math Textbooks from page 1

evaluate the quality of these strategies, the analysts applied a set of 24 instructional criteria to specific lessons, activities, teacher notes, assessments, and other material in the student and teacher editions. Developed by Project 2061, these criteria were derived from research on learning and teaching and on the craft knowledge of experienced educators.

The analysis had a reliability rate of 90%. The overall scores on each of the criteria and the relative rankings of the textbook series reflect consistent judgments by the reviewers, regardless of the particular benchmark, instructional criterion, or textbook series.

#### Good News:

- There are a few excellent middle grades mathematics textbook series.
- The best series contains both in-depth mathematics content and excellent instructional support.
- Most of the textbooks do a satisfactory job on number and geometry skills.
- A majority of textbooks do a reasonable job in the key instructional areas of engaging students and helping them develop and use mathematical ideas.

#### **BAD NEWS:**

- There are no popular commercial textbooks among the best rated.
- Most of the textbooks are inconsistent and often weak in their coverage of conceptual benchmarks in mathematics.
- Most of the textbooks are weak in their instructional support for students and teachers.
- Many textbooks provide little development in sophistication of mathematical ideas from grades 6 to 8, corroborating similar findings of the Third International Mathematics and Science Study.
- A majority of textbooks are particularly unsatisfactory in providing a purpose for learning mathematics, taking account of student ideas, and promoting student thinking.

#### Furthering Reform

"The Project 2061 analysis gives busy educators the solid information they need to make informed choices about which textbooks will help their students improve their understanding of and skills in mathematics," stated Dr. Gerald Kulm. "It can also help educators use textbooks more effectively by identifying where supplemental materials or staff development may be needed. It's important to note that our analysis describes a textbook's potential for helping students learn—to be used effectively, excellent materials require excellent and well-trained teachers."

It is clear that education reform in mathematics is beginning to have an impact on textbooks and on the developers and publishers who create them. Project 2061 hopes its textbook evaluations will further influence publishers and curriculum developers to focus on key learning goals. The project is currently seeking funding to continue its analyses of mathematics and science textbooks at the high school and elementary levels so that educators will have a comprehensive resource to help them make the best textbook adoption decisions for their schools.

## How to Access the Report

Project 2061's Middle Grades Mathematics Textbooks: A Benchmarks-Based Evaluation can be found on the Web at http://project2061. aaas.org. The report contains an overall comparison of the textbooks analyzed, an overview of how and why the analysis was conducted, a description of Project 2061's analysis procedure and the cognitive research behind it, and summary reports on each textbook. A print version of this report will be published and will also include a CD-ROM with all the ratings on specific criteria and detailed descriptions of analysis findings. The results of the evaluation of middle school science textbooks will be released on the Web this summer. To receive notice of exact dates of publication, please call 202-326-6666 or e-mail project2061@aaas.org. An in-depth look at Project 2061's curriculum materials analysis procedure along with cognitive research and examples of satisfactory and unsatisfactory materials will be published in the forthcoming print/CD-ROM tool Resources for Science Literacy: Curriculum Materials Evaluation.

#### A Much Needed Resource

Visits to Project 2061's Web site have more than doubled since the evaluations were posted, and numerous educators and parents have e-mailed Project 2061 saying they are using the report:

Thank you to you and your team for the excellent review of middle level math materials. It is especially helpful here in Wisconsin as we are developing a standards-based curriculum in all areas with a high stakes test to match. We are also reviewing Connected Mathematics for adoption next year. Keep up the good work!

"I saw a newspaper article in the Detroit News and noticed my daughter has a very lowrated text. My husband, an engineer, had told me the text was poor, and this confirmed his belief. I hope to use this information to change the textbook in our district."

"As my colleagues and I sharpen our pencils to write our middle grades curriculum guide (more qualitative descriptions of math, science, and language arts materials), we continue to turn to your ratings both as a resource for our own work and as one to which we can refer our readers."

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# Working Toward Understanding in the Classroom

Steve Holman, a science teacher at McNary High School in Keizer, Oregon, has recently embarked upon a new approach to teaching. Last spring Holman received training from Project 2061 Professional Development Programs in understanding the nature of benchmarks and standards, analyzing curriculum frameworks and materials, and designing instruction. Incorporating the Project 2061 training into his teaching led Holman to the discovery that his students were not attaining adequate depth of understanding of fundamental science concepts. Project 2061 staff member Terry Handy talked with Holman about what he has learned from Project 2061, why and how

> he has changed his teaching methods, and how he hopes to help his students to better understand what they are being taught.

**TH:** What alerted you that your students were not attaining the depth of understanding they needed?

**SH:** Last spring I was invited to take part in developing training for workshop leaders for

Project 2061 Professional Development Programs. That experience opened my eyes to the fact that a lot of teachers are finding that their students do not really understand what they are being taught. Of course, I assumed that my students were learning what I was teaching. After all, they were doing well on tests. But upon closer scrutiny, I discovered that I really wasn't reaching them. For example, when a concept is fully understood, it's possible to apply it or at least speculate how to apply it to real life situations. But when I interviewed some of my students one-on-one and gave them a written test to see how well they understood the concepts I had taught, I realized that they could not translate what they had learned to applications outside the classroom. Part of this was lack of understanding and part of it was the students had never been asked to do this before. Either way, this is a real barrier for students.

**TH:** How are you attempting to correct this lack of understanding?

SH: One of the things I learned from my Project 2061 training is the importance of providing students with multiple experiences for each concept I introduce and the need to approach each concept from several different angles. I'm also trying to provide more opportunities for students to practice concepts and ideas in a lot of different contexts. I'm also re-teaching if it's clear that they're just not getting it, rather than shoving on under the pressure of having to cover every topic in the curriculum. I've tried to take more of a scaffolded approach-breaking down the concept into smaller, more "teachable" pieces. Then I try to teach each piece as a separate lesson, scaffolding or building up to the final concept. It seems to be working pretty well for some things and not so well for others. I think it's the right approach, but I need more experience with it.

**TH:** Describe the approach to teaching you used prior to this year.

**SH:** I think my approach was a little bit more traditional. My goal was to cover material, to get through a unit, to get to the next unit. I could only spend so much time on each unit, and when a unit was done, we moved on. That gets you through material efficiently, but it doesn't allow you to go back and ask, "Did they get it?" And if they didn't get it, "Now what do I need to do?" So for selected units, I'm teaching now with the notion that if they don't understand, then I'm going to have to devote more time. That's the main difference in my approach: I'm trying to be sensitive to whether I'm just covering material or truly helping them to master fundamental concepts.

**TH:** Are you satisfied that you're on the right track?



Steve Holman McNary High School Keizer, OR

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**SH:** Absolutely. I'm still struggling with what model to use to achieve that understanding. I think a teacher should expect to struggle with that for a while. I'm trying a lot of things. The scaffolding approach is something we spent a lot of time on in one of the Project 2061 workshops, and I'm finding that extremely helpful. So I'm on the right track, but I'm not there yet.

**TH:** Are any of the other science or mathematics teachers in your school using Project 2061 methods?

**SH:** Right now, I'm the only one, and it's difficult. Some of my lesson sequences are quite a bit slower than those of my colleagues because I stop and go back and re-teach. It just takes more time to be sure the students really know the material.

**TH:** What impact have the changes in your approach to teaching had on you?

**SH:** It's been tough to realize that what I had been doing simply wasn't working. It's easier to go along and blithely assume that things are going the way you think they are going. Since this is the first year I've tried this new approach, I didn't expect it to work right away. Yes, last year and the year before I felt more successful,

but it was only because I wasn't asking the right questions.

**TH:** What advice would you offer to teachers who want to know whether their students really understand what they're being taught?

SH:: Pick one or two units that you know well and say, "What do I want them to know at the end of this?" Then design an interview where you can talk with a few students to find out what they really understand. Ask application questions instead of recall questions, and then try to identify the pieces that are missing from their understanding and redesign the unit based on that feedback. But only do it for a couple of units to start with. I think if you try to do it for everything it will be overwhelming, and you'll be more likely to give up and go back to the old way. I would also advise teachers to get some training in teaching to benchmarks and standards and teaching for understanding. I think that is something a lot of teachers are missing.

I don't think you can expect things to change overnight. I think that next year I'll be far better and the year after that better still. I hope that in three or four years I will be where I want to be, and I will just be fine-tuning from then on. *Employed to be* sensitive to whether I'm just covering material or truly helping them to master fundamental concepts.

#### **Exploring Science, Mathematics, and Technology for Preschoolers**

What children experience in the pre-kindergarten years could determine how well they learn science, mathematics, and technology when they are older. Unfortunately, early childhood education in these areas is largely inadequate in the United States. These are just two of the findings revealed in *Dialogue on Early Childhood Science, Mathematics, and Technology Education*, the latest publication from Project 2061.

Although past educational research has cast doubt on very young children's abilities to understand these subjects, several experts contend that young children may be capable of learning more than previously thought. According to Jaqueline R. Johnson, a sociologist and anthropologist at Grand Valley State University, "More recent [research] grounded in developmental and cognitive psychology suggests that children are indeed capable of concept-based, theoretical learning." The best ways to develop science, mathematics, and technology experiences for young children are explored in *Dialogue*, a compilation of 15 papers commissioned by AAAS for its February 1998 Forum on Early Childhood Science, Mathematics, and Technology Education. More than 100 experts gathered at the Forum, which was funded by the National Science Foundation, to exchange ideas and identify the most promising directions for new research. In addition, the book contains an extensive bibliography and list of resources for educators, parents, and advocacy groups.

To order a copy of *Dialogue*, please contact the AAAS Distribution Center, 1-800-222-7809, P.O. Box 521, Annapolis Junction, MD, 20710. (Item #99-06S: 200 pages, \$12.95.) The full text of this publication is also available on-line at Project 2061's Web site, http://project2061.aaas.org.



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#### About Project 2061

Project 2061 of the American Association for the Advancement of Science is a long-term initiative to reform K-12 education nationwide so that all high-school graduates are science literate. Project 2061 is developing a coherent set of reform tools to help educators meet science literacy goals in their own districts.

Science for All Americans (OUP, \$13,95) describes what every citizen needs to know in science, mathematics, and technology. Benchmarks for Science Literacy (OUP, \$23.95) presents specific learning goals in science, mathematics, and technology for the end of grades 2, 5, 8, and 12. Both of these books are also available in Spanish (OUP-Mexico). *Resources for Science Literacy:* **Professional Development** (OUP, \$49.95) provides educators with valuable background materials to improve their own knowledge and skills. **Blueprints for Reform** (OUP, \$17.95) outlines changes needed in a dozen areas of the education system to improve learning in science, mathematics, and technology. **Dialogue on Early** Childhood Science, Mathematics, and Technology Education (AAAS, \$12.95) discusses the latest findings on teaching these subjects to preschool children. Middle Grades Mathematics Textbooks: A Benchmarks-Based Evaluation (currently on the Web) presents the results of Project 2061's analysis of both widely used and newly developed middle school mathematics texts.

In addition, Project 2061 Professional Development Programs provide customtailored workshops on understanding benchmarks and standards and aligning curriculum and assessment to them.

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To order Project 2061 products call: Oxford University Press (OUP)-1-800-451-7556; OUP-Mexico-011-52-5-592-5600, ext. 166; AAAS Distribution Center-1-800-222-7809.

## **Professional Development in Panama**

ifteen "docentes mentores," mentor teachers from Panama, came to Washington, D.C., in January to attend their first Project 2061 Professional Development Programs workshop. These mentors included representatives from the Panamanian government, university level educators, and teachers from three pilot schools. The workshop represented the first step in an ongoing relationship between Project 2061 and Panama.

"Panama is very interested in using Project 2061 tools in areas such as evaluating curriculum materials and assessments, developing curriculum frameworks, and designing instruction," explained Scott May, executive director of Project 2061 Professional Development Programs. "Our goal is to develop a cadre of Project 2061 mentors who can act as resources for other teachers in Panama." This goal was the main

focus of this first workshop and will be expanded upon in a second, similar workshop in Panama. It, in turn, will be followed by a third workshop for 65 additional science, mathematics, and technology teachers from other Panama school districts. Panama is also interested in using the project's tools to analyze their national curriculum.

With the help of Avances en el Conocimiento Científico and Ciencia: Conocimiento Para Todos, (the Spanish versions of Benchmarks and Science for All Americans) and translators, workshop leaders and participants crossed language barriers easily. Despite some cultural differences, the workshop was successful. "It was a positive experience," said Fernando Cajas, a Project 2061 research associate who led many of the workshop sessions. "The participants were eager to learn about new tools for teaching, and Project 2061 leaders were excited to be introduced to an education system that operates within the context of one national curriculum."

In addition to Panama, other countries have also expressed an interest in Project 2061's



professional development workshops. In May, Project 2061 director George Nelson and Scott

> May will travel to Saudi Arabia to discuss workshop possibilities. Project 2061 is also exploring ways to work with both El Salvador and Guatemala.

#### **IMPROVING COLLEGE** Curriculum

To help adults achieve mathematics literacy, Project 2061 and the Alamo Community College District in San Antonio are experimenting with a new design for developmental mathematics courses for community college students. In a Project 2061 workshop this summer, two mathematics professors from each of four campuses will design new courses using grades 6-8 mathematics benchmarks and middle school mathematics textbooks. The texts will be one of four that received high rat-

ings in Project 2061's recent mathematics textbook evaluation. In September, these professors will teach both the new courses and their traditional mathematics classes and assess if the new courses improve student achievement. If they do, the District hopes to implement the new courses throughout its colleges.

#### 📕 To Learn More

Since 1994, Project 2061 has conducted hundreds of workshops across the United States with thousands of teachers, administrators, and university faculty in a variety of settings. Project 2061 workshops focus on implementing long-term, systemic reform through understanding benchmarks and standards and aligning curriculum, instruction, and assessments to them.

For more information about Project 2061's Professional Development Programs, or how to bring Project 2061 to your school, district, state, museum, or other education facility, visit http://project2061.aaas.org/pdp/index.html, send a request by email to pdp2061@aaas.org, or call 1-888-PDP-2061.





## Director's Notes

## Transforming Textbooks

Dr. Gerald Kulm, who directed our mathematics textbook evaluation, went a step further. He wanted to assess the science in the mathematics books and the mathematics in the science books. His preliminary findings were surprising. The mathematics books contained almost no science. Occasionally, a reference was made to some object or process that could "sound scientific," but there was almost no use of scientific concepts or knowledge or attempt to teach them. In the science books, mathematics was used but not taught and was completely out of sequence with what was being learned in math class. It seems that integration still escapes us in mathematics and science.

Our textbook evaluation also pointed out differences in the content of school mathematics and school science. School mathematics is at best a very slow-changing body of knowledge. The content and context do not change much from book to book, year to year, or generation to generation, but cognitive research and technology have greatly influenced instruction in the last decade. Although enormous effort has gone into improving teaching of traditional mathematics, new developments in mathematics research rarely play a part. (You don't find much about Andrew Wiles' proof of Fermat's last theorem in new middle school math books.)

With the new materials, students are learning the ideas and skills of school math that will serve them well in the world of work. But something is lost in ignoring the excitement of mathematics as a dynamic discipline. Textbooks include few examples of new mathematics, and in an attempt to show real-world applications for every activity, children have few chances to explore and gain an appreciation for mathematics itself.

School science, on the other hand, suffers from the opposite problem. Every new science book is crammed with the latest images from the Hubble Space Telescope, photographs of Dolly the cloned ewe, and vocabulary from every science story that has made the Tuesday edition of the *New York Times*. School districts won't buy science materials with a copyright even a year old, because they are "out of date," meaning the pictures and glossary have changed. There is no well-defined school science like there is school math.

Yet, the nature of science and its underlying principles, concepts, and skills change very slowly. In today's science textbooks, these foundational benchmark ideas may be present, but they are heaped indistinguishably with irrelevant trivia. Even though students graduate familiar with the topics and vocabulary of modern science, they gain no understanding on which to base future learning. They believe that science is exciting for scientists and impacts their own lives, they just don't know why or how. And they do not establish the habits of mind that could serve them well in this increasingly scientific world.

Through our analysis of textbooks, we're finding the content of the math curriculum to be relatively fixed but almost completely separated from the day to day work of mathematicians. In contrast, the content of the science curriculum is a moving target, exciting and connected to the frontiers of research but without a foundation-still a mile wide and an inch deep, as the TIMSS folks describe it. Given the choice, I'd take the approach of the new mathematics texts any day-good instruction with well-defined learning goals. The challenge for math is adding insights into the frontiers of the discipline. The challenge for science is keeping fantastic new discoveries from obscuring the core curriculum that will result in science literacy. The challenge for both is building coherence and mutual support across the disciplines.

George D. M.

George D. Nelson Director

Given the choice, I'd take the approach of the new mathematics texts any day—good instruction with welldefined learning goals.

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#### Watch the Web!

Visit http://project 2061.aaas.org for the latest Project 2061 products and news. The full text of Science for All Americans will soon be posted, joining on-line versions of Middle Grades Mathematics Textbooks: A Benchmarks-Based Evaluation; Dialogue on Early Childhood Science, Mathematics, and Technology Education; Blueprints for Reform; Benchmarks for Science Literacy, and recent project-related articles. Click "Contact Us" to be added to Project 2061's mailing list or to receive news and offers via e-mail.

#### **Hewlett-Packard**

Project 2061 has recently received an equipment grant from Hewlett-Packard's U.S. National Grants Program. The grant is being used to upgrade Project 2061's file and web servers and to enhance the project's product development capabilities.

#### Introducing ...

Project 2061 is pleased to introduce the following new staff members. **Ryan Arndt** has joined Project 2061 as a project assistant, working primarily on the *Atlas of Science Literacy*. He is a graduate of Harvey Mudd College with a degree in physics. **Brie Meisler** is the new administrative support specialist for the Project 2061 communications team. She worked previously as a patient relations representative at Sandhills Center for Mental Health, Developmental Disabilities and Substance Abuse Services. Also new on the Project 2061 communications staff is writer **Michelle Treistman**, a former assistant editor for the National Science Teachers Association. After a stint as an intern, **Mary Bennett Sharp** has joined the Project 2061 Professional Development Programs staff full time to work on trade show administration, database development, and meeting logistics. She has a degree in history from Davidson College. Marketing associate **Jennifer Sprague** is another new member of the Professional Development Programs team. She is a former assistant product-marketing manager at BYK-Gardner. **Linda Williams** is Project 2061's new senior financial analyst. She previously worked in the AAAS News and Information Office.

#### **On the Airwaves**

Project 2061 curriculum director Jo Ellen Roseman was a recent panelist on the National Public Radio show *Science Friday*. Roseman took part in a live, nationally broadcast discussion on science education reform with Leon Lederman, Nobel laureate and founder of the Illinois Mathematics and Science Academy and with Irma Anderson, project manager of the National Science Teachers Association's Teacher Center. *Science Friday*, hosted by Ira Flatow, is a weekly science talk show that focuses on science topics in the news.

#### Media Campaign

Project 2061 director George Nelson will be featured in a series of public service announcements for a statewide media campaign in Minnesota. SciMath Minnesota's "Raising Math and Science Achievement for All" campaign is a collaborative effort between the Minnesota Chamber of Commerce, Minnesota High Tech Association, Minnesota Business Partnership, Minnesota PTA, and SciMath MN. The campaign's objective is to increase awareness among Minnesota parents and employers about the importance of math and science skills for all students.

## 2061 today

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