



Project 2061
American Association for the Advancement of Science

Engineering Change in the Education System

Blueprints for Reform

Since its publication in May 1998, *Blueprints for Reform* has received high praise from educators nationwide, and indications are that the book is becoming a "must have" for anyone interested in improving science, mathematics, and technology education.

Blueprints presents summaries of a dozen papers prepared by experts on aspects of the education system that must change to make Project 2061's vision of science literacy for all students a reality. *Blueprints* also poses questions that are designed to stimulate dialogue about the issues raised in those papers.

"It's a valuable resource for anyone working in science education reform," says Dr. Carlo Parravano, director of the Merck Institute for Science Education in Rahway, New Jersey.

The Merck Institute is working on systemic reform in four school districts by providing professional development for K-8 teachers and seeking to improve curriculum implementation and assessment. Dr. Parravano says he is frequently approached for background information on a specific area of science education reform, and he enthusiastically recommends *Blueprints*. "There are very few places to go for this kind of information," he reports. *Blueprints* is "up to date and has an extensive bibliography," he adds.

William McDiarmid, director of the Institute for Social and Economic Research at the University of Alaska, feels the book embodies the fundamentals of education reform.

"As I work with various groups around the country, I find that *Blueprints for Reform* pro-

vides the basic principles that state departments of education, foundations, and others can build on," McDiarmid said. "It lays out a reasonable set of goals and gives strategies for reaching those goals."

Cary Sneider, vice president for programs at the Museum of Science in Boston, is especially impressed with the graphics in *Blueprints*. "I like the data," Sneider declares. "Throughout the book the graphs are full of useful information, and they are nicely organized and displayed."

INFORMATION IN DEMAND

Educators across the country are evidently eager for the kinds of information *Blueprints* provides. Oxford University Press reports that 2,300 pre-publication copies were sold, and sales to date have topped 3,200 and are steadily climbing. *Blueprints* has also generated considerable interest at recent educators' meetings, such as the National Science Teachers Association regional conferences.

Exactly what is it about *Blueprints* that has created this demand? Part of the answer is that *Blueprints* brings a great deal of clarity to the complexity that often characterizes the education system. Many science teachers are especially pleased that so many important topics have been addressed so thoroughly and in one document. *Blueprints* sheds light on individual parts of the system and shows how those parts fit together. Each chapter serves as a primer on a key component of the K-12 education system but also deals with more advanced topics that are routinely overlooked.

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2061 today

Science Literacy
for a
Changing Future

Mathematics

Natural Sciences

Social Sciences

Technology

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Blueprints examines 12 aspects of the K-12 education system under three major themes:

THE FOUNDATION

Equity: How is the attainment of science literacy by all students impeded by policies and practices?

Policy: Do current local, state, and federal education policies help or hinder the realization of science literacy?

Finance: What are the costs, in terms of money and other resources, of "science literacy for all"?

Research: What kinds of research are needed to improve instruction for science literacy?

THE SCHOOL CONTEXT

School Organization: What will the realization of science literacy goals require of grade structure, teacher collaboration, and control of curriculum materials and assessments?

Curriculum Connections: How can connections among the natural and social sciences, mathematics, and technology be fostered?

Materials and Technology: What new resources are needed for teachers to help students become science literate?

Assessment: Do current assessment practices work for or against the kind of learning recommended in *Science for All Americans*?

THE SUPPORT STRUCTURE

Teacher Education: What changes are needed to produce teachers with the knowledge and skills to implement curricula based on science literacy goals?

Higher Education: What changes in admissions standards might be necessary to support K-12 reforms to promote science literacy?

Family and Community: How can families and communities help in supporting or implementing local, state, or national standards?

Business and Industry: In what ways can partnerships between business and education contribute to the attainment of science literacy?

Blueprints *from page 1*

Another reason *Blueprints* is being so well received may be the manner in which the book was put together. Only after extensive consultation with educators, scientists, and policymakers did Project 2061 choose the twelve key components of the education system that are addressed in *Blueprints*. It then consulted still more experts to describe these components as well as how they interact with one another. During an extensive review process, additional educators and specialists participated in three focus groups where they provided feedback on each *Blueprints* chapter. The combined knowledge of hundreds of experts in education, science, mathematics, and technology went into the creation of the publication.

CONTINUING THE DIALOGUE

Project 2061 encourages educators not simply to read *Blueprints* but to become active participants in the work it promotes. To spark thoughtful debate that will further education reform, readers are encouraged to respond to survey questions about *Blueprints* topics on Project 2061's Web site at <http://project2061.aaas.org>. Readers are also invited to help expand *Blueprints*'s resources and bibliographies by emailing information on relevant programs, projects, reports, and research studies to blueprints@aaas.org.

Blueprints for Reform: Science, Mathematics, and Technology Education is available on-line at <http://project2061.aaas.org> or from Oxford University Press. For ordering information call 1-800-451-7556.

AAAS 1999 Forum for School Science to Focus on *Science For All Americans*

Project 2061's landmark book *Science for All Americans*, published in 1989, helped set the stage for the science standards movement in the United States. The 10-year anniversary of this publication will be celebrated in the *AAAS Forum for School Science: Science Futures—Education for the New Millennium* on January 25 and 26 at the 1999 AAAS Annual Meeting in Anaheim, CA. The Forum will examine progress in various science disciplines and in the opportunities for all students to learn science and highlight how new scientific knowledge, technological innovations, and a changing society will affect science education in the 21st century.

In its 1996 evaluation of the impact of *Science for All Americans*, and its companion, *Benchmarks for Science Literacy*, SRI International stated that they reflect the "best thinking in science education reform..." and that Project 2061 has "provided a banner around which science education reformers could rally." To date, more than 130,000 copies of *Science for All Americans* have been sold worldwide.

On the first day of the Forum, two panels of experts from the physical, life, social and behavioral sciences, and mathematics will describe the advancements in their fields over the past 10 years and highlight those that might affect

how schools help students to achieve science literacy. On the second day, practitioners will discuss the progress of national, state, and local groups in engaging every student in the study of science and offer suggestions for future efforts. On both days, small group sessions will follow the panel presentations. These sessions will include workshops on Project 2061's curriculum-materials evaluation procedure and a presentation by the directors of Project 2061's School-District Centers in San Diego and San Francisco on their experiences in implementing education reform. A Forum poster session and reception will also be held to highlight the work of teachers, schools, and districts that have adopted the recommendations of *Science for All Americans*.

Other invited Forum speakers include Eric Jolly, Education Development Center; Leon Lederman, Illinois Institute of Technology; Marian Diamond, University of California, Berkeley; and Greg Stefanich, University of Northern Iowa.

The AAAS Forum will run from 9:30 a.m. to 6:30 p.m., Monday, January 25, and from 8 a.m. to 3:30 p.m. on Tuesday, January 26. For more information, visit the 1999 AAAS Annual Meeting Web site at <http://www.aaas.org/meetings/scope>.

How Business Can Further Education Reform

Kevin Healey is director of Corporate Public Involvement at UNUM Corporation, the world's leading provider of disability and special risk insurance. Headquartered in Portland, Maine, UNUM is the state's fifth largest employer and a major champion of K-12 public education reform. UNUM's Chairman and CEO, James F. Orr, III, led the Maine Coalition for Excellence in Education when it drafted its fifteen-goal education restructuring plan "Success Begins With Education." Over the past five years, the UNUM Foundation has given 37% of its annual program budget to activities linked to restructuring Maine's K-12 public education system. Project 2061 staff member Susan Shuttleworth talked with Healey about how businesses can work to further education reform.

SS: Why is UNUM so interested in K-12 public education reform?

KH: No other public issue has such a direct impact on our communities and our business. Like most companies, we've become much more dependent on technology and more focused on customer service. Both of these areas require well-educated employees. If the school system doesn't equip graduates with the necessary skills, then we'll have to invest heavily to train employees ourselves. That doesn't make any sense.

Even our customers have to be well educated. Insurance is a concept product. Understanding why you need it can be complex. If we're going to be successful in the future, better education for everyone is essential.

This is also part of being a good corporate citizen, a socially responsible company. But I have to be honest with you: if there wasn't a strong business case to be made, we wouldn't be investing as heavily as we are. Public education is one of those areas where you really can combine your own corporate interests with the needs of the community.

SS: "Success Begins With Education," a comprehensive reform plan developed by the Maine Coalition for Excellence in Education, calls for, among other things, high standards of achievement for all students, professional development

for teachers, and closer cooperation among schools, parents, communities, and businesses. Tell us more about UNUM's involvement.

KH: We've been underwriters, supporters, and leaders within the Coalition for seven years. The Coalition is a rather unique and eclectic mix of all stakeholders. We've got state legislators, the commissioner of education, business leaders, the head of the teacher's union, parents, and teachers. Everything UNUM does within the education reform movement—whether it's giving money in grants or enlisting our employees to volunteer in the schools—connects to one of the plan's 15 goals. For instance, the first three goals deal with getting standards in place in Maine. We used UNUM's lobbyists to walk the halls of the state capitol and talk to representatives and senators to help them understand why standards were so important. We supported the development of editorials, ads, and communication pieces. We met with the gubernatorial candidates to talk about why standards were so important.

Other goals in the plan promote advocacy for children. In response, UNUM has changed some of its policies so that employees who are parents can take time off with pay to participate in parent-teacher conferences, field trips, school meetings, and so forth.

SS: How is UNUM involved in professional development for teachers?

KH: We have underwritten many grants for professional development through the University of Southern Maine's College of Education. We also look for partnerships. For several summers, we supported a program where marine biology and oceanography professors from Maine Maritime Academy took teachers on a schooner for a week and equipped them with new knowledge and tools to take back to their classrooms. We also sponsored some hands-on, nontraditional work with *Young America*, a boat vying for the America's Cup back in 1995. The crew developed a program with the University of Southern Maine on using the technology of modern sailing and race boats as a hands-on classroom project.

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Kevin Healey

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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 set of reform tools to help educators meet science literacy goals in their own districts:

Science for All Americans describes what every citizen needs to know in science, mathematics, and technology. *Benchmarks for Science Literacy* presents specific learning goals in science, mathematics, and technology for the ends of grades 2, 5, 8, and 12. *Resources for Science Literacy: Professional Development* provides educators with valuable background materials to improve their own knowledge and skills. *Blueprints for Reform* outlines changes needed in a dozen areas of the education system to improve learning in science, mathematics, and technology. *Resources for Science Literacy: Curriculum Materials Evaluation* (forthcoming) reports on Project 2061's approach to analyzing and evaluating science and mathematics textbooks and other instructional materials. *Designs for Science Literacy* (forthcoming) suggests how educators can take a systematic design approach to planning a K-12 curriculum. *Atlas of Science Literacy* (forthcoming) maps out connections among benchmarks to show how student learning progresses over time and how content connects across disciplines.

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

AAAS gratefully acknowledges the following for their support of Project 2061: Carnegie Corporation of New York, John D. and Catherine T. MacArthur Foundation, Andrew W. Mellon Foundation, Robert N. Noyce Foundation, The Pew Charitable Trusts, and the National Science Foundation.

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Project 2061's print and electronic products are available from Oxford University Press. For ordering information, please call 1-800-451-7556.

How Business Can Further Education Reform *continued from page 3*

SS: What would you say to businesses across the country to encourage them to get involved in science, mathematics, and technology education reform?

KH: The U.S. economy has to compete on a global level now. We are excelling in the value-added service sector and in high-tech manufacturing. These require workers with top skills in technology, science, and math. These disciplines are directly connected to where the economy of the United States is going. If we're going to continue to be strong in these areas, we'd better invest now. There's that old saying about why Wayne Gretzky is such a superior hockey player. The answer is that Wayne skates to where the puck is going to be, not to where it is. When we look at technology, mathematics, and science, that's where the puck is going to be, and that's why we need to keep investing in these areas.

SS: What role do you see for Project 2061 or similar education reform initiatives?

KH: School districts and states are at very different stages of education reform. Some are just starting out, and some have been struggling with it for a long time. I think groups like Project 2061 can offer both a model and the means so that educators don't have to reinvent the wheel every time. There are tremendous

resources available to educators who want to know about standards, new curriculum, and ways to improve their school. I've heard people call them islands of change. Organizations like Project 2061 are those islands of change.

SS: You are on your local school board and on numerous committees at the state level. What advice would you give to individuals who are looking to get involved in education reform in their communities?

KH: I would advise people to start locally. Don't necessarily jump right in at the state level or by joining some kind of national committee. Think about what you can do in your own backyard. Look for areas where you have a personal stake so that your involvement means that much more to you. Second, be strategic. Look at the big picture. Be more of a visionary. As a school board member, you can get bogged down on small, tactical minutiae. Don't get stuck in that quagmire. Continue to ask, "Why am I doing this?" You're doing this to improve children's learning. Anything that doesn't help advance this cause is not worth the effort. Finally, be prepared for a long haul. That's what it takes to really make changes. I've been doing this for a long time and so has UNUM. We've learned to measure our successes step by step.

Exhibit Schedule

Look for Project 2061's exhibit booth and presentations at the following conferences in 1999:

American Association for the Advancement of Science

January 21-26, 1999, Anaheim, CA
Contact: (202) 326-6450 or <http://www.aaas.org>

American Association of School Administrators

February 19-22, 1999, New Orleans, LA
Contact: (703) 875-0748 or <http://www.aasa.org>

American Association of Colleges for Teacher Education

February 24-27, 1999, Washington, D.C.
Contact: (202) 293-2450 or <http://www.aacte.org>

National Association of Secondary School Principals

February 26-March 2, 1999, New Orleans, LA
Contact: (703) 860-0200 or <http://www.nassp.org>

Association for Supervision and Curriculum Development

March 6-8, 1999, San Francisco, CA
Contact: (703) 578-9600 or <http://www.ascd.org>

National Science Teachers Association—National Meeting

March 25-28, 1999, Boston, MA
Contact: (703) 243-7100 or <http://www.nsta.org>

National School Boards Association

April 10-12, 1999, San Francisco, CA
Contact: (703) 838-6722 or <http://www.nsba.org>

National Council of Teachers of Mathematics

April 22-24, 1999, San Francisco, CA
Contact: (703) 620-9840 or <http://www.nctm.org>

Project 2061 Professional Development Programs: Setting the Standard

Project 2061 launched its new professional development enterprise just months ago, and already workshop requests are flowing in.

"We're getting requests from across the country and around the world," reports Scott May, executive director of Project 2061 Professional Development Programs. "Everyone's talking about using benchmarks and standards, and science and mathematics teachers are eager to learn how. They are relieved to find out that when it comes to standards, they don't have to start from scratch. Hundreds of top scientists, mathematicians, and educators spent years creating the learning goals found in *Benchmarks* and the *National Science Education Standards*, and these national documents are available to everyone. Of course, many states and districts have their own sets of standards now as well. The key is to learn how to use all of these learning goals effectively, and that's where we come in."

A DIFFERENT APPROACH

Project 2061 Professional Development Programs, launched with a \$2 million grant from The Pew Charitable Trusts, teach educators how to align curriculum and assessments to benchmarks and standards and to build their instruction around these learning goals. Workshops range from one-day introductory sessions to ongoing, multi-year programs. These long-term professional development programs prepare educators to become leaders in their schools and districts and to share what they've learned with colleagues. Workshop participants are better able to take on key reform tasks such as designing curriculum frameworks or choosing new textbooks and assessments.

"Most teachers do not get to spend nearly enough time honing their skills," states Project 2061 Professional Development Programs marketing manager John Howe. "Project 2061 is trying to change that. We work with schools and districts to develop long-term, custom-tailored professional development programs and then help schools find the funding to carry these programs out. This approach really sets us apart."

Based on feedback from a great many participants, Project 2061 has created programs

that are unique in other ways because they:

- Challenge teachers to focus on long-term reform strategies.
- Use research about how students learn from grades K-12.
- Emphasize the alignment of curriculum materials, instruction, and assessment to benchmarks and standards.
- Meet high standards established through extensive field-testing with hundreds of educators.

IN THE FIELD

Project 2061 is currently working with schools in the Harrisburg, Pennsylvania, area through funding from the Whitaker Foundation. The Harrisburg teachers will be using benchmarks and standards to write a new curriculum. On the international front, Project 2061 is beginning a three-year professional development program for science and mathematics teachers in Panama, which will be funded by the Inter-American Development Bank (IDB). Using Spanish translations of *Science for All Americans* and *Benchmarks for Science Literacy*, educators will be trained to use benchmarks and standards to revise Panama's curriculum framework in science, mathematics, and technology. Participants will also learn how to analyze curriculum materials and improve instructional strategies. Project 2061 has developed a proposal for a similar set of IDB-funded workshops for educators in El Salvador.

Professional development manager Mary Ann Brearton has been very busy giving workshops here at home. Since June, she has conducted workshops in Texas, South Dakota, Maine, Idaho, Iowa, Maryland, Pennsylvania, Oregon, and Tennessee. "From the response we're getting, it's obvious we are filling an important need in the education community," she states. "It's great to see so many teachers excited about learning to use benchmarks and standards."

For more information about Project 2061 Professional Development Programs, call 888-PDP-2061 or visit our Web site at <http://project2061.aas.org>.



Project 2061 Rates Instructional Materials

This is the most thorough and rigorous study of textbooks and their match to benchmarks and standards that has been done to date.

Now that science and mathematics educators have benchmarks and standards to guide them in what to teach, they need help in finding curriculum materials that match these benchmarks. Thanks to a grant from the Carnegie Corporation of New York, Project 2061 will be able to provide such help, at least for middle-school science and mathematics. In early 1999, Project 2061 will release evaluation reports that rate how well textbooks for grades 6-8 meet benchmarks and standards and support students learning them. Eventually, Project 2061 hopes to provide similar data on high-school and elementary-school materials.

THE ANALYSIS

Creation of the reports began this past summer when K-12 teachers, university faculty, scientists, and mathematicians gathered in Washington, D.C., to analyze a selection of the most widely used middle-school texts and the most innovative new materials. The analysts first underwent extensive training in Project 2061's curriculum-materials evaluation procedure, which examines a textbook's content and analyzes its instructional strategies to see whether the strategies actually help students to understand ideas in specific benchmarks and standards. The groups then tackled the curriculum materials, which were both print and technology based. The science analysts examined physical, life, and earth science sections in 14 texts, and the mathematics analysts examined 13 mathematics texts. Twelve analysts working in independent, two-person teams were assigned to each text.

HELPING EDUCATORS MAKE INFORMED CHOICES

"This is the most thorough and rigorous study of textbooks and their match to benchmarks and standards that has been done to date," stated Project 2061 director George Nelson. "The detailed evidence that our reports are based on will help educators to make informed choices about which texts will help students achieve benchmarks and standards."

Project 2061 hopes the reports, which will be released in book form and on-line, will create better informed teachers who, in turn, will

influence curriculum developers and textbook publishers. Ratings for the mathematics texts will be released in early 1999, and the science textbook ratings will be available in the spring. Visit Project 2061's Web site at <http://project2061.aas.org> for further updates.

Curriculum Materials Evaluated:

MATHEMATICS (GRADES 6-8)

Connected Mathematics Dale Seymour Publications
Connections D.C. Heath
Math Advantage Harcourt Brace and Company
Math 65, Math 76, Math 87 Saxon Publishers
Math Thematics McDougal Littell
Mathematics Applications and Connections Glencoe/McGraw-Hill
Mathematics in Context Encyclopedia Britannica Educational Corporation
Mathematics Plus Harcourt Brace and Company
MathScape Creative Publications
Middle Grades Math Prentice Hall
Middle School Math Scott Foresman-Addison Wesley
Passport to Mathematics Heath/McDougal Littell
Transition Mathematics Scott Foresman

SCIENCE (LIFE, EARTH, AND PHYSICAL SCIENCE - GRADES 6-8)

Glencoe Glencoe/McGraw-Hill
Macmillan McGraw-Hill Science Macmillan/McGraw-Hill
Michigan Science Education Resources Project - Chemistry That Applies; Food, Energy, and Growth (for grades 8-10); All Steamed Up; Hard as Ice; Lives of Plants (for grades 5-7) Michigan Department of Education
Middle School Science & Technology Kendall/Hunt
Prentice Hall Prentice Hall
PRIME Science Kendall/Hunt
Science Insights Addison-Wesley
Science Interactions Glencoe/McGraw-Hill
Science 2000 Decision Development Corporation
SciencePlus Holt, Rinehart and Winston

DIRECTOR'S NOTES

Toolkits

I grew up in a rural setting, and the holiday season always reminds me of the Sears catalog and those great toolkits: a 118-piece set for just \$19.99! Inside the front cover of *Benchmarks for Science Literacy* is a vision, circa 1993, of Project 2061's ultimate toolkit for science education reform. The text promises that "soon to follow [*Benchmarks*] will be *Designs for Science Literacy*, which advises on alternatives for local curriculum, and *Blueprints for Reform*, which considers the broader educational system in which curriculum functions. Later, all these publications plus a resource database will be incorporated and interrelated in the computerized Curriculum-Design & Resource System." You can't fault the project for lack of scope or vision!

SYSTEM 2061

Even though my astrophysical research involves computer modeling, and I trusted my life to a totally computer-controlled spacecraft in my astronaut days, I have never seen computer systems as the cure for all the world's woes. At first, I pictured this computer-based Curriculum-Design & Resource System—now code-named "System 2061"—as former director Jim Rutherford's pipe dream, a potential sink for time and resources. Today, thanks to the creative work of our staff, we're well on our way to making it a reality. Our current plan for System 2061 is even more ambitious than it was in 1993. Jim's vision is again vindicated. With *Designs* and *Blueprints* plus *Resources for Science Literacy: Professional Development*, *Resources for Science Literacy: Curriculum Materials Evaluation*, and *Atlas of Science Literacy*, each with their own web-connected electronic components, we are assembling a very powerful new set of tools. The completion of System 2061, which will bring all of our tools together and allow seamless movement among them, is a couple of years away, but the wait will be worth it.

Imagine being able to check for prerequisite ideas by jumping from a benchmark statement in *Benchmarks On-Line* to a growth-of-under-

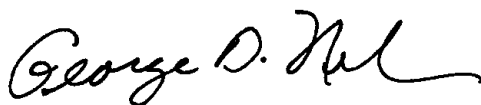
standing map from *Atlas*. Then clicking on the map to see the research on student misconceptions or a suggested assessment item or curriculum module. Suppose you find a trade book on our new *Professional Development* disk that is just what you need to learn about next week's topic. You'll only be a click away from our home page where you can order the book through our connection to Barnes and Noble and have it delivered the next day. As the Internet and information technology evolve, we plan to stay at the cutting edge so that our tools are most useful to educators everywhere.

TAKING REFORM TO THE NEXT LEVEL

It is this combination of new capability and new thinking that makes Project 2061's tools so potent. But powerful tools require careful training and a lot of practice in using them and understanding their rationale. That is why we've developed a whole program of professional development workshops to help educators get the most out of our tools and to use them effectively. Workshop participants learn to use our tools to choose effective curriculum materials and assessments, improve their content knowledge, design coherent K-12 curricula, and further education reform in their communities.

Project 2061 is creating quite a toolkit. There is nothing else like it, not even in the Sears catalog. We invite you to take a close, hard look. Our tools are carefully reviewed prior to release, but that is just the start. We hope you will study them and apply them in many different ways to help all students achieve science literacy. Then let us know what you think.

As always, we welcome your suggestions and look forward to hearing from you.



George D. Nelson
Director

*As the Internet
and information
technology evolve, we
plan to stay at the
cutting edge so that our
tools are most useful to
educators everywhere.*



Early Childhood Education

Dialogue on Early Childhood Science, Mathematics, and Technology Education, the set of commissioned papers from Project 2061's Early Childhood Forum held in February 1998, is now available. For more information call (202) 326-6666 or visit <http://project2061.aaas.org>.

Introducing...

Project 2061 is pleased to welcome the following new staff members. **Scott May**, former director of development, information systems, and M.B.A. programs at The Washington Campus, has joined Project 2061 as executive director of Project 2061 Professional Development Programs. Helping him launch this new enterprise are marketing manager **John Howe**, former president and COO of Canson-Talens, Inc.; marketing associate **Joe Watson**, previously of the Mathematical Association of America; and administrator **Ayda Argueta**, also from The Washington Campus. Senior research associate **Kathleen Morris** has joined Project 2061 after teaching elementary and middle school for more than 20 years. She is working on the mathematics component of Project 2061's curriculum-materials evaluation database. Project coordinator **Terry Handy**, formerly in AAAS's Office of News and Information, is now part of Project 2061's communications team and works on communications and outreach activities. **Alan Stonebraker** has joined the computer department as a technology specialist in multi-media. He previously ran a 3-D imaging and microscopy core lab for SUNY at Buffalo's School of Medicine. Research associate **Fernando Cajas**, who recently received his doctorate from Michigan State University,

is coordinating Project 2061's professional development workshops in Panama and working on numerous science literacy projects involving technology.

Benchmarks for Science Literacy in Spanish

Benchmarks for Science Literacy is now available in Spanish. *Avances en el Conocimiento Científico*, like *Ciencia: Conocimiento para Todos* (*Science for All Americans*), will be distributed to schools throughout Mexico. Both translations will also be used in Project 2061's three-year professional development program in Panama. To order copies, call 202-326-6666 or e-mail project2061@aaas.org.

Project 2061 in the News

People all across America are learning about Project 2061! Director George D. Nelson's editorial, "You Don't Have to Be a Rocket Scientist to Think Like One," has appeared in the *Philadelphia Inquirer* and the *Minneapolis Star Tribune*, and he has spoken on TV and radio programs in Buffalo, Philadelphia, and Minneapolis. Over the past four months, Project 2061 has also been featured in the *Washington Post*, *Harvard Education Letter*, *Optics & Photonics News*, *Journal of Staff Development*, and *Science Teacher*. To access these articles, visit Project 2061's Web site at <http://project2061.aaas.org>.

Congratulations

Project 2061 founder Dr. F. James Rutherford has been awarded the Joseph H. Hazen Education Prize given for the first time by the History of Science Society in recognition of outstanding contributions to the teaching of history of science. He shares the prize with Professor Gerald Holton of Harvard University.

▶ To order FREE COPIES of Project 2061's **UPDATE 1998-99** or to receive information on Project 2061 Professional Development Programs, call 1-888-PDP-2061 or visit <http://project2061.aaas.org>.

2061 today

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