

Making **Science**
Make **Sense**[®]

SCIENCE – n. knowledge derived from observation, study and experimentation.

SENSE – n. ability to perceive or feel or become conscious of a thing, awareness or recognition of something, or: the way in which a word or phrase is understood, its meaning or one of its meanings.

MAKE SENSE – v. to have a meaning; to be a sensible and practicable idea.

MAKING SCIENCE MAKE SENSE – Bayer's company-wide initiative that advances science literacy through hands-on, inquiry-based science learning, employee volunteerism and public education.



Recognition

- National Science Board's Public Service Award
- Presidential Ron Brown Award for Corporate Leadership
- President's Service Award
- Keystone Center's Leadership in Education Award
- The Conference Board's Best In Class Award



Collaboration

Believing in strength in numbers, Bayer collaborates with like-minded foundations, organizations, government agencies and corporations to improve STEM education and foster science literacy. Partners include:

- American Association for the Advancement of Science
- American Chemical Society
- National Association of Manufacturers
- National Math + Science Initiative
- National Science Foundation
- National Science Teachers Association
- PhRMA
- STEMconnector
- U.S. Department of Education



Science is at the heart of everything Bayer does. It's the thread that runs through and connects all of Bayer's businesses. As a science-based company, Bayer recognizes its responsibility to help improve science education and promote science literacy. After all, not only is a science-literate citizenry important to Bayer's businesses, it is critical to America's future economic strength and success.

This belief is the impetus for Bayer's decades-old Presidential award-winning *Making Science Make Sense*® program. It has a proven track record of advancing science literacy across the United States through the support of hands-on, inquiry-based science education, employee volunteerism and public advocacy/education. Bayer also is increasingly supporting programs designed to keep students in science, technology, engineering and math (STEM) throughout college – a point at which many drop out of STEM majors entirely.

In recent years, *Making Science Make Sense* has increasingly addressed the issues of STEM diversity and underrepresentation. As the need for STEM talent grows around the country, the current U.S. STEM workforce prepares to retire and the minority population grows, there is an urgent need to bring more people from all walks of life into the nation's STEM fields -- fields in which women, African-Americans, Hispanics, and American Indians have traditionally been underrepresented.

Bayer, through *Making Science Make Sense*, is examining these issues closely through public opinion surveys, forums and reports, and by developing strategies for diversifying the STEM pipeline beginning in elementary school through high school to college and beyond — promoting Science For A Better Life.

Employee Volunteerism

Making Science Make Sense has its roots in employee efforts begun half a century ago. It was then that Bayer volunteers began helping teachers teach and students learn science the way scientists do — by doing it. Today, in Bayer site communities across the country, employees work to foster science literacy and ignite student interest in science. They volunteer in schools, at science fairs, science centers, zoos, museums, community events and even open up their labs to inspire and serve as important role models for today's students – all efforts the nation's science teachers call essential.

Making Science Make Sense[®]

National Public Education Campaign

Reforming science education requires the support and commitment of the entire community. It is critical then to educate parents, businesses, civic leaders and the general public about the importance of science literacy and the need for reform. To achieve this, *Making Science Make Sense* uses a number of effective tools:

- **National MSMS spokesperson Dr. Mae C. Jemison**

As the nation's first African American female astronaut, Dr. Jemison travels the country on behalf of Bayer addressing STEM and science education, science literacy and diversity issues before key audiences, including federal, state and local elected officials, education and industry leaders, parents, teachers and students.

- **Bayer Facts of Science Education Survey Series**

The Bayer Facts surveys have taken the pulse of America's attitudes over the last 20 years about timely issues related to STEM education, science literacy, the STEM workforce and, more recently, diversity and underrepresentation. The surveys have polled various audiences, including the nation's Ph.D. scientists, *Fortune* 1000 STEM company CEOs, and deans of colleges and universities, as well as parents, science teachers, students and the general public. Results have been distributed widely and have helped inform the national discussion on these issues.

- **Resources for Parents, Students and Teachers**

On our Web site, MakingScienceMakeSense.com, visitors will find many free downloadable materials, including experiment guides, audio segments which answer everyday science questions, Bayer Facts survey results and an interactive periodic table, as well as other fun and informative science facts and trivia.

- **STEM Diversity and Education Forums**

Bayer has held a number of national STEM education diversity forums (in Washington, D.C., and San Francisco) to bring together education and business leaders and other interested parties to look at ways to scale up programs with proven track records of student achievement in STEM, particularly with girls and underrepresented minorities.

- **Business Education Partnership Resource Materials**

To further galvanize STEM industry involvement in improving education, Bayer has made widely available free resources, including a business education partnership guide, a compendium of best practice K-12 STEM education programs, and a compilation report of 17 Bayer Facts surveys from 1995-2015.

Systemic Science Education Reform

At the core of *Making Science Make Sense* is a fundamental change in how science is taught. It involves a shift away from the traditional textbook approach to one that is hands-on, inquiry-based and experiential, starting from the earliest elementary school grades right through college. To help drive this change, Bayer spearheads and supports initiatives at every educational level, including:

- **K-8 Systemic Reform Programs**

Working together with local school districts and other partners, Bayer has spearheaded science education reform programs across the country to provide ongoing teacher professional development and introduce hands-on, inquiry-based science teaching and learning in classrooms in Pittsburgh, Pa., Clayton, N.C., New Haven, Conn., Charleston, S.C., Elkhart, Ind., New Martinsville, W.Va., and Kansas City, Mo.

- **School to Career Programs**

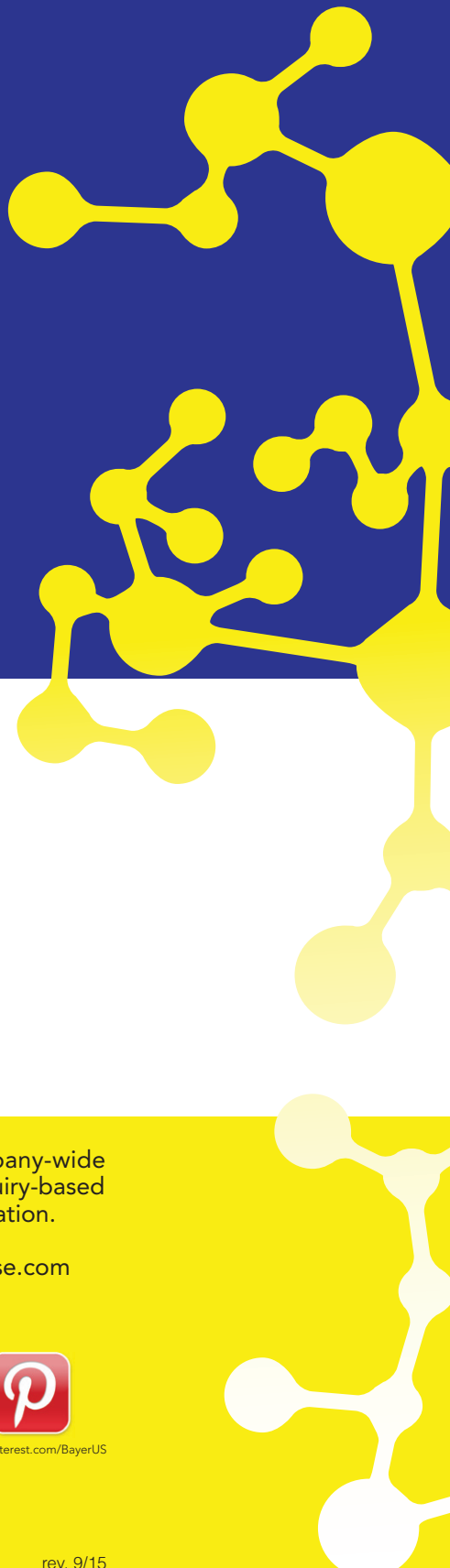
Bayer has created model programs at both the high school and community college levels that result in young people continuing their education and gaining entry level technical positions at Bayer and other STEM companies. In addition, in order to strengthen its talent pipeline, Bayer has rolled out various trainee programs across North America.

- **Higher Education Programs**

Through partnerships with organizations and universities, such as Biotech Partners, NACME (National Action Council for Minorities in Engineering), AISES (American Indian Science and Engineering Society), the American Chemical Society and California State University East Bay, among others, Bayer provides scholarships, fellowships and internships to graduate and undergraduate female and minority students who are committed to continuing their studies in the sciences.



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Making Science Make Sense® is Bayer's award-winning, company-wide initiative that advances science literacy through hands-on, inquiry-based science learning, employee volunteerism and public education.

For more information, please visit MakingScienceMakeSense.com



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