The Facts About...

The Challenge: America’s schools are not producing the science excellence required for global economic leadership and homeland security in the 21st century.

The Solution: Ensure schools use research-based methods to teach science and measure results. Establish partnerships with universities to ensure that knowledgeable teachers deliver the best instruction in their field.

How No Child Left Behind Boosts Science Achievement

President Bush and Congress recognize there is a problem.

- Eighty-two percent of our nation’s twelfth graders performed below the proficient level on the 2000 National Assessment of Educational Progress (NAEP) science test.
- The longer students stay in the current system the worse they do. According to the 1995 Third International Mathematics and Science Study, U.S. fourth graders ranked second. By twelfth grade, they fell to 16th, behind nearly every industrialized rival and ahead of only Cyprus and South Africa.
- As the U.S. Commission on National Security in the Twenty-First Century reports, “More Americans will have to understand and work competently with science and math on a daily basis . . . the inadequacies of our systems of research and education pose a greater threat to U.S. national security over the next quarter century than any potential conventional war that we might imagine.”

No Child Left Behind creates Math and Science Partnerships to rally every sector of society to work with schools to increase math and science excellence.

- The National Science Foundation and the U.S. Department of Education will provide an estimated $1 billion over five years for results-oriented partnerships between local districts and universities and colleges.
- Partnerships will also invite businesses, science centers, museums, and community organizations to unite with schools to improve achievement.
- The program also rewards states for increasing participation of students in advanced math and science course and for increasing the passing rates on Advanced Placement exams.
- To ensure accountability, the Partnerships must report annually to the U.S. Secretary of Education on progress in meeting their set objectives, aligned to state standards.

The president has called for increasing the ranks and pay of teachers of math and science.

- No Child Left Behind requires states to fill the nation’s classrooms with teachers who are knowledgeable and experienced in math and science by 2005. The president supports paying math and science teachers more to help attract experience and excellence.

Our nation must research the best way to teach science and regularly measure student progress.

- No Child Left Behind requires that federal funding go only to programs that are backed by evidence.
- The new law also requires that beginning in 2007 states measure students’ progress in science at least once in each of three grade spans (3-5, 6-9, 10-12) each year.
- Over the last decade, researchers have scientifically proven the best ways to teach reading. We must do the same in science. America’s teachers must use only research-based teaching methods and the schools must reject unproven fads.