

## WHAT'S NEW?

### Toddlers and Preschoolers Really Learning About Science

Jessica Goldfarb works with young children at the Bristol-Myers Squibb Child Development Center, a day-care facility for the families of company employees in Lawrenceville, New Jersey, operated by Bright Horizons Family Solutions. So she's used to spending time helping them learn. Now a new program and series of science kits developed by Bristol-Myers Squibb take science learning for the very young to an entirely new level. And what's more, it's been a learning experience for Jessica as well.

"I really learned something new from one of the kits that explored playground science," she says. "The children learned about friction by riding down the slides on different types of mats. They learned about gravity by holding different objects and dropping them into buckets. We would trace a shadow in the morning and later stand in the same spot and see that shadow had moved because of the position of the earth in relationship to the sun. These were ideas that you would otherwise take for granted. Suddenly we had different activities to explore outdoor play. It was fun and the kids really enjoyed learning."

Adds Jackie Grisham, the center's director: "Anything to make science and math an adventure, instead of something to be feared, is great. And the parents loved them too, because the kits included take-home materials with activities they could do with their young kids."

For more than 10 years, Bristol-Myers Squibb has been a leader in developing and supporting programs to strengthen science teaching in kindergarten through 12th grades in area schools, partnering with school districts and teachers as well as with university teacher training programs — all based on the idea of using teaching materials that focus on experiential, inquiry-based, hands-on learning. That effort, called BLAST (Building Leadership and Assistance for Science Teaching), has now been extended to the very youngest learners, through BLAST PreK. The BLAST PreK kits, initially piloted at four company child development centers and now being expanded to other day care centers, introduce young learners to the excitement of exploration.

Says David Heil, a nationally recognized science educator who helped develop the curriculum and kits covering six units — insects, play, senses, water, sound, and fitness and nutrition: "We conducted a lot of research to understand what elementary school teachers felt they needed to see in science readiness of kids when they arrived at their doorstep, as well as what interested kids and what parents wanted their kids to learn. With simple tools and design elements you can create a rich exploratory environment. Early childhood educators are in an excellent position to set the stage for exploratory learning. As teachers, they can interact with kids in such a way that promotes confidence as a young explorer, and parents can engage in some of those activities as well."

After a year and a half of field testing at the Bristol-Myers Squibb child development centers, which already had science integrated into their curriculum, in February 2005, the Foundation provided kits and teacher training to five area preschools. The kits are being phased into 40 additional community child care centers — without charge over the next three years.

"This curriculum and these kits leverage the expertise in early childhood care of the community child care centers against ready-to-use materials and science concepts to make optimal use of the 'teachable moment,'" Heil says. "Now, because these kits have everything teachers need and the take-home activities to help make the family connections happen, the program enriches the learning environment for the children, and offers an advanced professional tool for the child care professionals. Bristol-Myers Squibb recognized the opportunity to help strengthen the field of early science intervention. In the broadest sense we want to increase the value that Americans place on science learning. By investing early in the processes of science learning, we're really investing in this country's future ability to continue to learn, innovate and compete in an increasingly science/technology-driven economy and society."

He concludes: "If we do this effectively at an earlier age, children will become more skilled at science learning, which will make them better science thinkers and better science citizens."



Very young children are experiencing science in an entirely new way thanks to BLAST PreK, a program piloted at the company's child development centers.