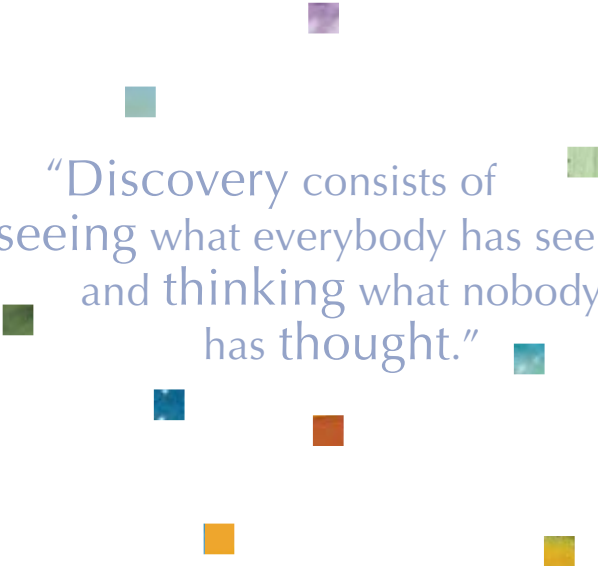


EXCERPT FROM



“Discovery consists of  
seeing what everybody has seen  
and thinking what nobody  
has thought.”

KAUFFMAN Thoughtbook 2009

Fourth in an ongoing series, the *Kauffman Thoughtbook 2009* captures what we are thinking, learning, and discovering about education, entrepreneurship, and advancing innovation. This collection of more than forty essays is written by the talented Kauffman Foundation associates, partners, and experts who are pursuing the principles and vision set by our founder, Ewing Kauffman.

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## Helping Local School Boards Understand the Importance of METS Education

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There are 14,600 local school boards across the United States, each independently addressing one of education's most critical challenges: how to improve the teaching of mathematics, engineering, technology, and science (METS). Some have led their districts to innovative partnerships and brilliant solutions; others have made disastrous decisions costing their districts thousands of dollars. But none of them has had a central place to go to for resources and support.

Beginning in 2007, a new partnership between the National School Boards Association (NSBA) and the American Association for the Advancement of Science (AAAS) was created to address this gaping need. The AAAS/NSBA Science, Mathematics, and Technology Education Project marks the first time a national science organization has reached out proactively to local school boards, and the first time that NSBA has directly addressed its constituents' needs with respect to METS subjects. The project's goal is to determine what school boards want and need to know about METS education and to address those needs head-on.

## Why Local School Boards?

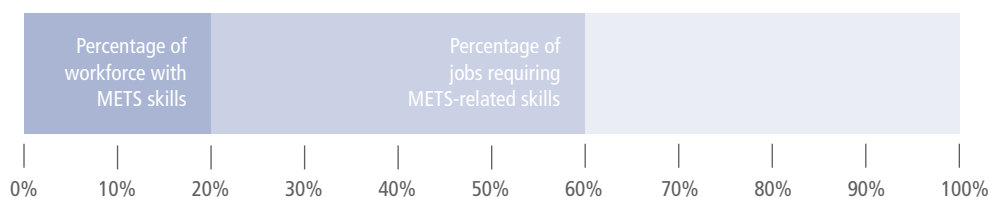
Educational and professional experts agree that U.S. public school education in METS fails to address society’s growing need for literacy in these subjects. Dire statistics include those from a recent U.S. Department of Labor report indicating that 60 percent of jobs in the 21st century economy will require skills that only 20 percent of the workforce currently has—and those skills are largely related to METS subjects. In the rush to address various aspects of the problem, a key player in the debate is often overlooked. The local school board is ultimately responsible not only for how these subjects are taught in public schools but also for garnering and ensuring community support for decisions about public school education. Yet school board members often know very little about METS education.

Typically, national science societies and organizations have interacted with local school boards only when boards institute policies that threaten science education. There are a number of examples, such as the Dover, Pennsylvania, school board’s decision to undermine the teaching of evolution by encouraging students to look into “intelligent design.” While weighing in after these decisions is important, preventing decisions like this in the first place would clearly benefit students as well

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as science education in general. The AAAS/NSBA partnership believes that helping school boards understand what science is and why METS education is so important will help prevent controversial issues from gaining traction while simultaneously addressing the larger issue of improving U.S. public METS education.

### Where to Begin?

Each of the U.S. local school boards faces a unique set of issues due to the highly localized structure of the U.S. public school system. Districts vary considerably in size, urbanization, and socio-economic variables, and board members represent a wide array of experience, education, and viewpoints. This means that a “one size fits all” approach is unlikely to meet all needs. To address this concern, the AAAS/NSBA partnership, with support from the Kauffman Foundation, designed a project that focused initially on the Kansas City metropolitan area. This region, in addition to being the headquarters of the Kauffman Foundation, encompasses a varied group of school districts that effectively function as a microcosm of the U.S. school districts in general. Furthermore, many Kansas City area school districts have had direct experience with controversies about evolution.

The most striking aspect of the AAAS/NSBA partnership has been the enthusiastic and appreciative response from Kansas City area school board members.

Our first challenge was to discover what school board members and their communities feel that school boards should know in order to address METS education. With the help of Public Agenda, we surveyed Kansas City area school board members, school administrators, teachers, parents, and students, and we soon

had some answers. First was the fact that Kansas City area school board members do not want to talk about evolution—they're sick of it, and they have more important concerns. Instead, school board members are worried about the state of METS education in general, and, while wary of being asked to become "educational experts," they need more information in order to be effective community leaders on this issue. These results reflect the larger school board community's feelings as well; a survey of school board members from across the country who attended our session about METS education at NSBA's 2007 Annual Meeting revealed similar concerns.

### Meeting Identified Needs

Our next challenge was to meet the needs revealed by our surveys in a way that would benefit school boards across the country as well as those in Kansas City. Our solution was to present a seminar for Kansas and Missouri school boards where experts addressed key questions, and to videotape the seminar and extract the best clips for dissemination to a broader audience. Accordingly, we offered the "AAAS/NSBA Science, Mathematics, and Technology Education Seminar" to approximately one hundred Kansas and Missouri school board members in June 2007. We have since been working to adapt the material to create resources for a broader audience. These will include training materials that state associations of local school boards can customize to offer boards the opportunity to learn more about METS education and a Web site that addresses specific questions board members have about METS education. We introduced preliminary iterations of these resources to the executive directors of the state associations of local school boards at a reception in February 2008, and they were met with widespread enthusiasm. The final resources debuted at the annual conference of state association trainers in June 2008.

## Next Steps

The most striking aspect of the AAAS/NSBA partnership has been the enthusiastic and appreciative response from Kansas City area school board members. As a result, AAAS is considering how to tailor more of its available resources to a school board audience, and NSBA is contemplating incorporating METS education more directly into its own work. This has been the best kind of partnership—the two organizations have learned from each other, and we are now inspired to look for ways to continue to work together beyond the scope of the original project.