

## Summary of Outreach Work of the Teacher Advisory Council

### Outreach to organizations outside of the Academy

Agency/Organization	Topic	Request/Outcome
National Council of Teachers of Mathematics (NCTM)	No Child Left Behind legislation <i>Focus in High School Mathematics: Reasoning and Sense Making</i>	On-going discussions around common core standards in science and mathematics as well as their relationship to the reauthorization of ESEA (No Child Left Behind)
National Science Teachers Association (NSTA)	No Child Left Behind legislation Common core standards in science and mathematics	On-going discussions around common core standards in science and mathematics as well as their relationship to the reauthorization of ESEA (No Child Left Behind) Additional possible areas of cooperation?
College Board	Common core standards and the reauthorization of the Elementary and Secondary Education Act (ESEA)  Restructuring of Advanced Placement science courses	Discussion - what would teachers like to see in the legislation?  What are the implications for professional development of AP teachers? How will these changes influence other parts of K-12 education? How can the TAC support the restructuring of the AP biology curriculum in conjunction with the Smithsonian' project, Teaching Evolution through 'Human Examples?
National Science Foundation	Various NSF projects (e.g. Math/Science Partnerships)	On-going discussions, since 2003, around NSF projects, TAC work, and areas of cooperation, and the PAEMST awards
Burroughs Wellcome Fund	Professionalization of the teaching profession and BWF's efforts to contribute to these efforts	Will look to have ongoing discussions about these issues.

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Smithsonian Institution's National Museum of Natural History	New exhibit on Human Origins	TAC support for education outreach – for this exhibit and others; on-going discussion and work on a possible grant Cooperative work to support Teaching Evolution through Human Examples as it relates to the new AP biology curriculum
American Association for the Advancement of Science (AAAS)	Work with the education section evolving formats of the AAAS journal, <i>Science</i>	- Establish areas of common concern for future cooperation - TAC support for work to make <i>Science</i> more accessible to K-12 teachers and upper level high school students
Merck Institute for Science Education	<i>Ready, Set SCIENCE!</i>	Discussion of potential grant to provide professional development for K-8 science teachers
Director, Educational Outreach, Library of Congress	Information available at Library of Congress	How can TAC help teachers explore the wealth of information available at the Library of Congress?
Representative from US Secretary of Education National Education Association	No Child Left Behind legislation	Discussion - how can teachers help with key issues?
Office of News and Public Information, PBS	Curricula for PBS science series Web based professional development	Advice and guidance on how to improve this product from the perspective of teachers.
Director, Educational outreach, Library of Congress	Information available through the Library of Congress	Discussion – how can the TAC help teachers reach information available through the Library of Congress?
Biotechnology Institute	Stem cells workshop	Establish guidelines for a potential joint workshop
US Department of Education	Math Science Partnerships Science Summit Professional development for teachers lacking science content	Information and discussion
National Aeronautics and Space Administration (NASA)	Various education programs	Overview of Education Programs
National Science Board	National Science Education Summit	What messages can the TAC send to the National Science Board?

<b>Agency/Organization</b>	<b>Topic</b>	<b>Request/Outcome</b>
American Institute of Biological Sciences (AIBS), American Institute of Physics, and American Association of Physics Teachers (AAPT) With NRC Board on Physics and Astronomy	Physics First curriculum	Discussion around issues related to placing physics first in the high school science curriculum
California Council on Science and Technology (CCST) and California Teacher Advisory Council (CALTAC)	Efforts in CA to improve K-12 STEM education	Continue to explore common issues that could result in workshops and other convenings (similar to 2007 symposium on the potential roles of online learning technologies to improve professional development for K-12 STEM teachers.
National Oceanographic and Atmospheric Administration (NOAA)	Education outreach programs around ocean exploration and research	What is available to teachers, and how can they best access NOAA's outreach materials?
Achieve	National standards and assessments	How can the TAC support work around the Next Generation Science Standards (NGSS)? How do the Common Core State Standards in mathematics and English, Language arts impact both science and mathematics educators?
National Council of Supervisors of Mathematics	Common Core State Standards (CCSS) in mathematics	Information about the implementation of the CCSS in mathematics

## Outreach to groups within the Academy

Division/Program	Topic	Request/Outcome
Division of Earth and Life Sciences	Educational products	On-going discussions, since 2006 - best distribution methods to get outreach projects to teachers and what format for educational materials is best for most teachers?
National Academy of Sciences Koshland Museum	Museum exhibits and education outreach	On-going discussion, since 2002, regarding museum work with students and teachers, a virtual field trip, and review of museum materials
National Academy of Engineering	Technology program Program – Public Understanding of Engineering Multimedia products about engineering as a career	Discussion and advice about feasibility of the project goals, and educator support  Outreach/dissemination support
NRC Center for Education	No Child Left Behind Evolution materials America's Lab Report Study of Effectiveness of Nationally - Board Certified Teachers 21 <sup>st</sup> Century Skills workshop	On-going discussions from 2003
Institute of Medicine	Obesity study Sleep and health Project on mental health (with NRC - Board on children, Youth , and Families	How to bring these materials into the K-12 curriculum  Dissemination; implications for using time in K-12 schools to devote to the interventions recommended in the report
Institute for Laboratory Animal Research	Report on <i>Science, Medicine and Animals</i>	Reaction to layout and format; strategies for use with middle and high school students; format and content of Teachers' Guide
Staff from the Academies' Office of Communications	Academies' education products Hot Topics brochures Communications workshop	On-going discussion from 2004 - information about communications and outreach efforts at the Academies and requests for suggestions for dissemination

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National Academies Press	New discovery engine – online Science briefs <i>Nobel Prize Women in Science</i> and I Was Wondering website	Discussion of possible student use How can these be made useful? Ideas for dissemination? How best to disseminate to teachers and students
NRC Board on Science Education (BOSE)	Common core standards in science NASA – precollege education evaluation Climate Change Roundtable Assessment Framework project Teacher Learning Continuum	Discussion of dissemination ideas for studies/reports - Science learning study, <i>Learning Science in Informal Environments</i> , Gaming, Simulations, and Education workshop report, <i>Ready, Set, SCIENCE!</i> Discussion around common core standards Information about NASA study and climate roundtable Coordination with BOSE on Strengthening Science Education through a Teacher Learning Continuum Discussions around Evaluation Framework for Successful K-12 STEM Education
Board on Chemical Sciences and Technology	Undergraduate chemistry education Chemical sciences roundtable <i>Prudent Practices in Lab Safety</i>	Next steps?  Teacher perspectives How can this be adapted for use in K-12 science classrooms?
NRC Chemical Sciences Roundtable	Strengthening High School Chemistry Through Teacher outreach Programs	Report of major workshop findings
Ocean Studies Board	Congressionally mandated Oceans Action Plan	What are the Ocean Sciences Educational Outreach Programs? How can this information reach teachers? Dissemination advice.
National Academy of Sciences (NAS) and Institute of Medicine (IOM)	Discussion of report: <i>Science. Evolution and Creationism</i>	Best ways to disseminate to teachers who need this information the most.

Division/Program	Topic	Request/Outcome
NRC Board on Life Sciences	The emerging field of Metagenomics and other big ideas in science <i>A New Biology for the 21<sup>st</sup> Century</i>	Possible ways to include cutting edge science in K-12 curricula  How can TAC support teacher involvement?