Building Partnerships Between CMMAP Scientists and Educators to Reach Diverse K–12 and Public Audiences

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Background

Partnerships between scientists and educators in the Center for Multi-Scale Modeling of Atmospheric Processes (CMMAP) are essential to meeting our **goal to educate and train a diverse population in climate and Earth system science.**

Our collaborations will enable us to:

- enhance teaching and learning at all education levels
- disseminate basic science knowledge and research results to students and the public through multiple media
- illustrate to stakeholders and policy makers the benefits of research to society

E & O Challenges

By establishing good communications between scientists and educators, we can overcome challenges:

- Find "educational niches" in which scientists are comfortable and enthusiastic
- Create an appropriate educational bridge between CMMAP research and our many audiences
- Simplify complex concepts without losing integrity of the science
- Use scientists' time efficiently

E & O Opportunities for Scientists

Be role models for STEM careers

By your example, motivate students to attain academic excellence.
- Share your excitement for cutting-edge research, technology, visualizations, and modeling
- Be a mentor for students and teachers

Advocate for STEM education reform

- Become informed about challenges
- Help as you can!

Promote public science literacy

Demystify and personalize the process of scientific research.
- Tell your story
- Explain your science interests
- Illustrate benefits of your research to society

Visit K-12 classrooms

Become familiar with and comfortable in K–12 classrooms.
- Know what to expect and what is expected
- Engage and relate well to students
- Align content appropriately for grade level

Enhance teachers' knowledge of science & research

Explain basic scientific concepts at the foundation of your research.
- Speak in teacher workshops
- Answer questions
- Provide tours of labs, field sites, and facilities

Help teachers relate what they teach to current research.
- Include them in "teacher-in-residence" lab and field experiences
- Participate with them as an equal partner in teaching and learning

Your help is needed!

WINDOWS TO THE UNIVERSE

Contribute to our online resources and technology

Validate the accuracy of our resources.
- Serve as a point person for clarification of scientific concepts
- Draft explanations about research that we can adapt for educational purposes

Provide scientific expertise and feedback to aid in development of educational tools.

How we can help you!

We have many helpful educational resources on www.windows.ucar.edu.

- Collections of hands-on science education activities for K-12 classrooms
- Tips for "Scientists in the Schools"
- Easy-to-do and build science demos
- Weather, clouds, climate, and modeling CMMAP-related web-based information
- Support in reaching diverse audiences

We are available to discuss your ideas and questions