

What is CMMAP?

The Center for Multiscale Modeling of Atmospheric Processes, CMMAP (pronounced "see map"), is one of 17 current Science and Technology Centers sponsored by the National Science Foundation. CMMAP is a partnership of research and educational institutions, government agencies, and industry.



CMMAP conducts research and promotes the education of a diverse scientific workforce. CMMAP communicates its findings to the general public, to policy makers, and to centers that predict weather and climate.

Clouds are one of the most important parts of the climate system and control cycles of energy, water, motion, and chemistry. The climate models that scientists currently have the technology to create do not completely represent cloud processes; the models are too coarse to accurately portray clouds and cloud movement, so it is difficult to understand and predict changes in global climate. Scientists have recently discovered a way to address these issues. CMMAP is developing a revolutionary new approach that will lead to more accurate simulations and a better understanding of global climate change.

For more information, please visit us online at:
www.cmmap.org

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Center for Multiscale Modeling of Atmospheric Processes



Teacher Resources

*Helping teachers and students
reach for the sky!*



A National Science Foundation Science and Technology Center

Science Education

Mission

CMMAP is educating and training a diverse population in climate and Earth System Science by enhancing teaching and learning at all educational levels, disseminating science results through multiple media, engaging stakeholders and policymakers, and improving science pedagogy.

Vision

It is our vision that a better understanding of global climate change will lead to improved science education, increased interest in atmospheric science as a career, a greater public understanding of the consequences, and policies to address the issues.



The Little Shop of Physics is a group of science educators and science students based out of Colorado State University.

They don't show students science; they help them do science. Their goal is to teach people that science is something anyone can do!

CMMAP is a proud partner and supporter of the Little Shop of Physics.

Little Shop of Physics resources include:

- **Ten Things You Should Know About the Atmosphere**, lesson plans with hands-on investigations to do with students.
- **Everyday Science**, a TV show on Poudre School District Channel 10 and Rocky Mountain PBS. Each episode explores a science theme that not only entertains but is tied to science standards for grades K-12.
- **Science It Up!**, a podcast series featuring short episodes that are educational and fun!
- **Tips for Teachers**, a pedagogical TV program just for teachers with great activity tips.



For more information, please visit:
<http://littleshop.physics.colostate.edu>

Exploration & Engagement



Weather & Climate for Teachers

Two 3-day course offerings each summer:

- Part I: The Science of Weather and Climate
- Part II: Weather & Climate Across the Globe

Courses provide college-level content on the physics of the atmosphere, weather, climate, and climate change, as well as demonstrate activities for the classroom. Teachers take home a box of science tools to use in their own classrooms!



Colorado Global Climate Conference

One-day conference for high school students and their teachers.

Our goal is to engage students in exploring climate science, regional and global effects of changing climate, and sustainable technologies and lifestyles.



Additional Resources

www.cmmap.org/scienceEd/teachers.html

- Literature and online resource recommendations
- Weather & Climate lessons for the classroom
- Changing Climates @ CSU

A non-technical online source for high-quality, up-to-date information about climate change from a variety of perspectives and disciplines. View short and long videos, book recommendations, public lecture announcements and more at: changingclimates.colostate.edu