Section 4 Introduction Weather, Climate and Society

"It is my conviction that weather doesn't just happen—it happens to us. Around us *and* inside us. Weather is our internal experience of daily atmospheric change. It is a human fabrication—a compound of rainfall and ritual, economics and air pressure, science and superstition, desire and expectation. It begins, naturally, 'out there,' but only becomes weather after it has touched us and we have touched it."
David Laskins, "Braving the Elements"

This section of the Guide offers 4 very different Activities actualizing various aspects of Laskin's words. "Writing Up a Storm" provides an opportunity for interdisciplinary connections to language arts and social studies while inviting students to reflect and remember a time when weather directly impacted their lives. Then, if you choose, students who generally use the Internet as a vast storehouse of data can put it to work as a communications device to share their stories with peers across the nation and around the world. "Hurricane Houses" is a rather unusual and fun classroom activity—involving a leaf-blower running at full throttle (safety tips provided!)—that also integrates meaningful connections to math, design and technology. "Making a Weather and Climate Timeline" will help put today's technology and knowledge in context by reaching back to encounter some of the most significant inventions and discoveries in humanity's long quest to understand the world about us. We've been sure to provide guidelines ensuring students will look far and wide in time and space to come up with unexpected people, places and severe weather events. Lastly "Modeling the Greenhouse Effect" allows students to see for themselves how global warming can and does happen. The hands-on Activity prepares students to research and debate the social and political issues involved in this topic, either as part of Activity 4.4, or as part of the unit Wrap-Up. (An intriguing extension of "Greenhouse Effect" is posted online, allowing students to experiment with the effect of clouds, oceans and albedo on temperature.)

The leading atmospheric research institutions in the nation, such as the National Center for Atmospheric Research, the University Corporation for Atmospheric Research in Boulder and NOAA's National Severe Storms Laboratory now include researchers with interest and experience in social implications as part of their research programs. (Roger Pielke, Sr. and Jr., at UCAR and Harold Brooks at NSSL.) This new component of meteorological research is related to the old saying usually ascribed to Mark Twain, "Everybody talks about the weather, but nobody does anything about it." We still can't stop hurricanes, tornadoes or snowstorms, despite the centuries-old dream of modifying or controlling the weather, and we probably never will have such powers. However, we can and increasingly now do predict them better. We can also better prepare for the worst that Nature can deliver by developing smarter emergency procedures and figuring out how to get people to follow sound advice. And in the one case where it now seems clear that humans *are* impacting climate (still politically controversial, though not seriously disputed in the scientific community), students can engage in debates over global warming and human-induced climate change with more awareness of the mechanisms involved. In all three areas Twain was wrong: properly informed, we can "do something about it." We can touch the weather, and it can touch us.