Education and Outreach Activities in the UCAR Office of Education and Outreach

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Program Emphasis

– Offers part of basic FFRDC education and outreach program
– Local community outreach and events
– K-12 teachers and students
– Web-based public education
– Diversity
– Facilitation and support of education and outreach activities for internal and external UCAR community
Approaches

• Programs addressing UCAR EO Strategic Plan goals and objectives
• Leverage successful existing programs where possible for maximum impact
• Highly collaborative programs, internally and externally
• Multi-purposing for efficiency
• Numerous small individual projects, addressing community/scientist needs as they arise, linked to larger programs
• Encourage diversity throughout
• Bilingual or multilingual where possible
Local Community Education and Outreach Events

NCAR Tours and Field trips
- 15,000 individuals/year
- Multilingual guided; Audiotour
- Vis-Lab

Special Outreach Programs
- Girl Scouts at NCAR Day
- CU Water Festival, 5th Graders
- Girls Exploring Science Engineering and Technology, MS
- Science is Everywhere Day, MESA

Super Science Saturday
- ~5,000 kids/families, Mesa Lab, last Saturday of October

Wild Earth Day
- Focus on climate change, environmental preservation, and sustainability
- Thousands of participants, families and young adults
Exhibits Program

- Exhibits program guided with input from Scientific Advisory Committee
- Exhibit maintenance and occasional installation of new exhibits when funding is available (usually through other sources)
- Climate Discovery Exhibit and Teacher’s Guide
- Weather Gallery
- 29th Street
- Traveling exhibits
Education and Outreach Facilitation and Support Services

- Support for UCAR community education and outreach efforts
  - Preparation for school visits, lectures
  - Training on classroom activities, demonstrations
    - Activity Kits and power-points
    - Publications, give-aways
  - Opportunities for staff engagement in outreach events
  - Assistance with development and implementation of education and outreach components for research proposals, leveraging existing high-impact programs and networks
Nominations invited from university community in order to enroll 20 selected, gifted college juniors

Goals for students

• Gain knowledge of state-of-the-art multi-disciplinary research, facilities, models, & technology developed and utilized at NCAR and NOAA
• Meet scientists who describe their research, career paths, and challenges encountered along the way
• Study models of leadership and consider importance of leadership in the sciences
• Establish a network of student peers from leading programs in the geosciences
K-12 Teachers and Students

- **NCAR Online Education**
  - Climate Discovery Courses
    - Introduction to Earth’s Climate
    - Earth System Science – A Climate Change Perspective
    - Understanding Climate Change Today

- **Professional Development Workshops**
  - At NSTA and other PD venues nationally and internationally, as well as in-house workshops at NCAR
  - ~2500 teachers per year
Collaborations

- Internal partnerships across NCAR for content development
- Numerous external partners
- Funded through multiple direct-funded grants and subcontracts including:
  - NSF STCs
    - Center for Multi-scale Modeling of Atmospheric Processes (CSU)
    - Center for Integrated Space Weather Modeling (BU)
  - NSF Office of Legislative and Public Affairs
  - NSF ATM
  - NASA International Polar Year
  - NCAR Education and Outreach Strategic Initiative
  - Hewlett Foundation
  - USGS, National Geographic Foundation, NEON
An undergraduate to graduate bridge program

Broadening Participation through:
• Summer research at NCAR
• Multidimensional mentoring
• A supportive community or peers
• Professional development
• Financial support
• Multi-year experiences