

Fourth Annual Conference on Carbon Capture & Sequestration

*Developing Potential Paths Forward Based on the
Knowledge, Science and Experience to Date*

Public Outreach and Education

Climate Change and Sequestration for Pre-Teens: Development of a Multi-Disciplinary School Curriculum

Jeremy Kranowitz

May 2-5, 2005, Hilton Alexandria Mark Center, Alexandria Virginia



The Center for Science and Public Policy at The Keystone Center

- Multi-party Dialogues
- Stakeholder Advisory Boards
- Meeting Facilitation
- 3 Program Areas:
 - Environment
 - Energy
 - Public Health



Artwork courtesy of Meg Kelly

Education Programs at The Keystone Center

Campus and Student Programs

- Classroom Access to Science Education (CASE) – School Groups
- Discovery Camp
- Policy Summits – Transportation (04), Childhood Obesity (05)

Curriculum Development & Teacher Training

- Key Issues – EPA
- Tri-State Key Issues – *DuPont*
- Mars Exploration Issues – *NASA and JPL*
- Green Chemistry – *Pfizer*
- Talkin' Trash – *CMI*
- Global Climate Change – *NETL and DOE*



What Makes TKC Curriculum Unique?

- Non-biased approach
- SPP expertise
- Integration of all content areas
- Tied to National Education Standards
- Inquiry-based and hands-on
- Current issue that has local, national & international impact and high visibility for kids

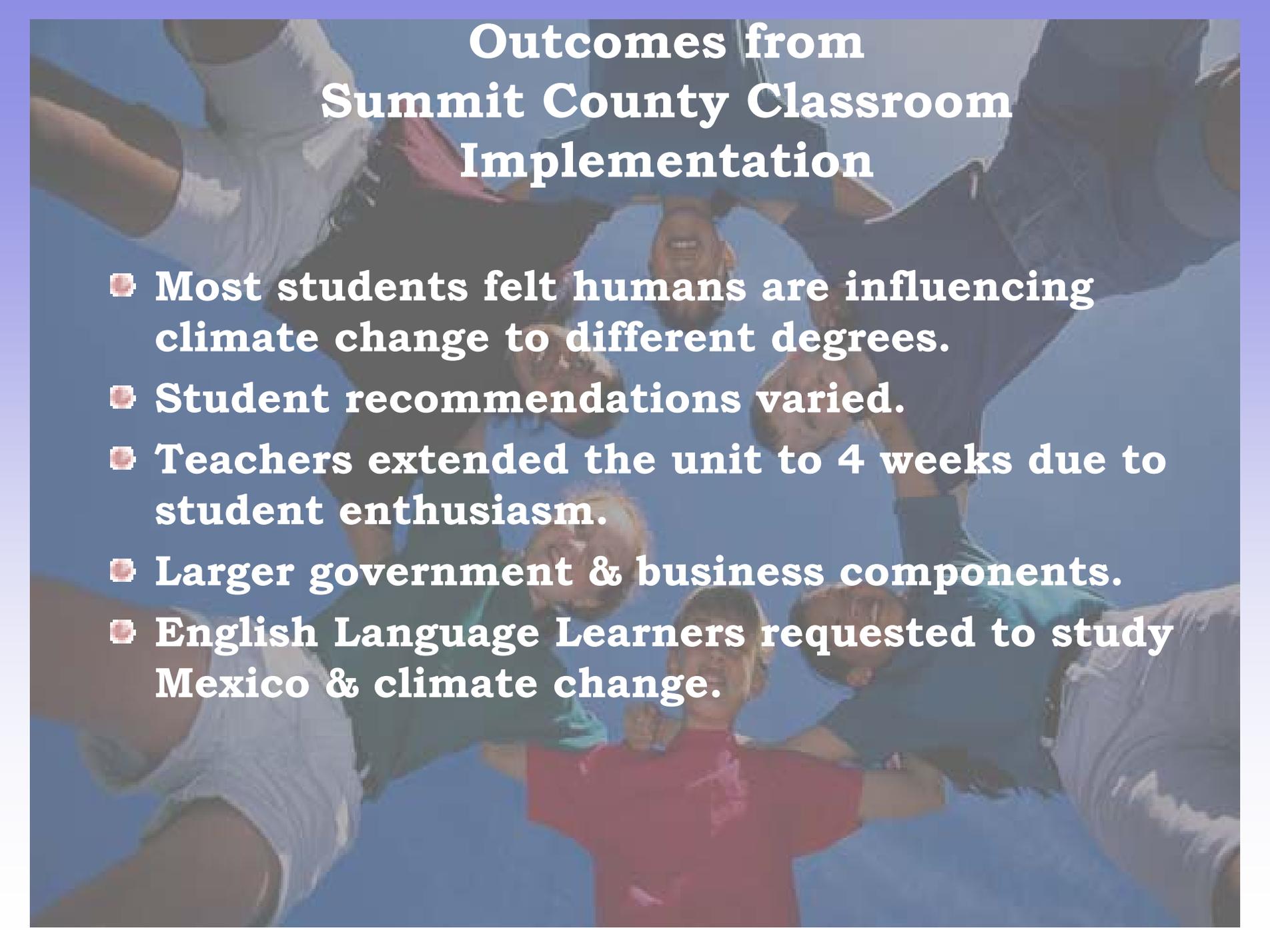




Climate Change Curriculum

- Students investigate the issue of rising temperatures
- Interdisciplinary lessons examine:
 - Possible causes, natural and human
 - Potential effects
 - Current research
 - Mitigation efforts
- Risk/Benefit analysis
- Potential Solutions – carbon sequestration, vehicle emission reduction, alternative energy, waste reduction...
- Decision Triangle uses concepts of sustainability
- Personal, local, and national action-taking

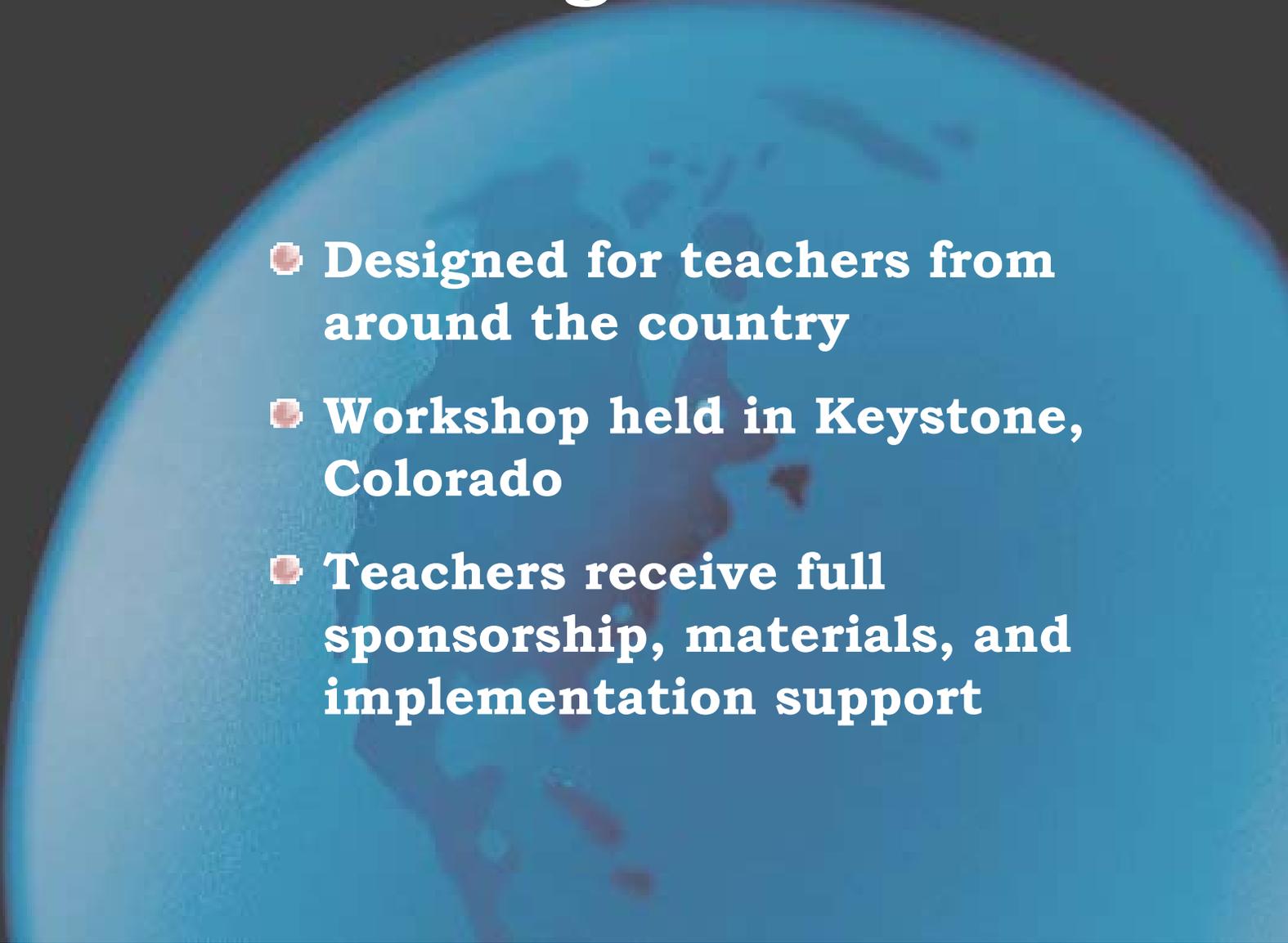


A group of diverse people, including men and women of various ethnicities, are shown from a high-angle perspective, huddled together in a circle. They are all smiling and looking towards the center. The background is a clear blue sky. The overall mood is positive and collaborative.

Outcomes from Summit County Classroom Implementation

- **Most students felt humans are influencing climate change to different degrees.**
- **Student recommendations varied.**
- **Teachers extended the unit to 4 weeks due to student enthusiasm.**
- **Larger government & business components.**
- **English Language Learners requested to study Mexico & climate change.**

Training 2005



- **Designed for teachers from around the country**
- **Workshop held in Keystone, Colorado**
- **Teachers receive full sponsorship, materials, and implementation support**

“You can’t do everything, but you can do something, and something can mean everything to someone.”

Quote from Justin Jozwik, 9th grader

For more information please contact:

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Eating Up Energy

A Sample Exercise

- Students discuss energy consumption, population, industrial development among nations
- Distinguishing between needs and wants (Material World)
- Global nature of carbon dioxide emissions
- Usefulness of models, and why this one isn't perfect (nuclear)
- Eat chocolate!
- More information at **www.keystonecurriculum.org**