

CMMAP Post-Secondary Education Initiatives:

Colorado College and Beyond



**Howard Drossman & Luke van Roekel
August 10, 2007**

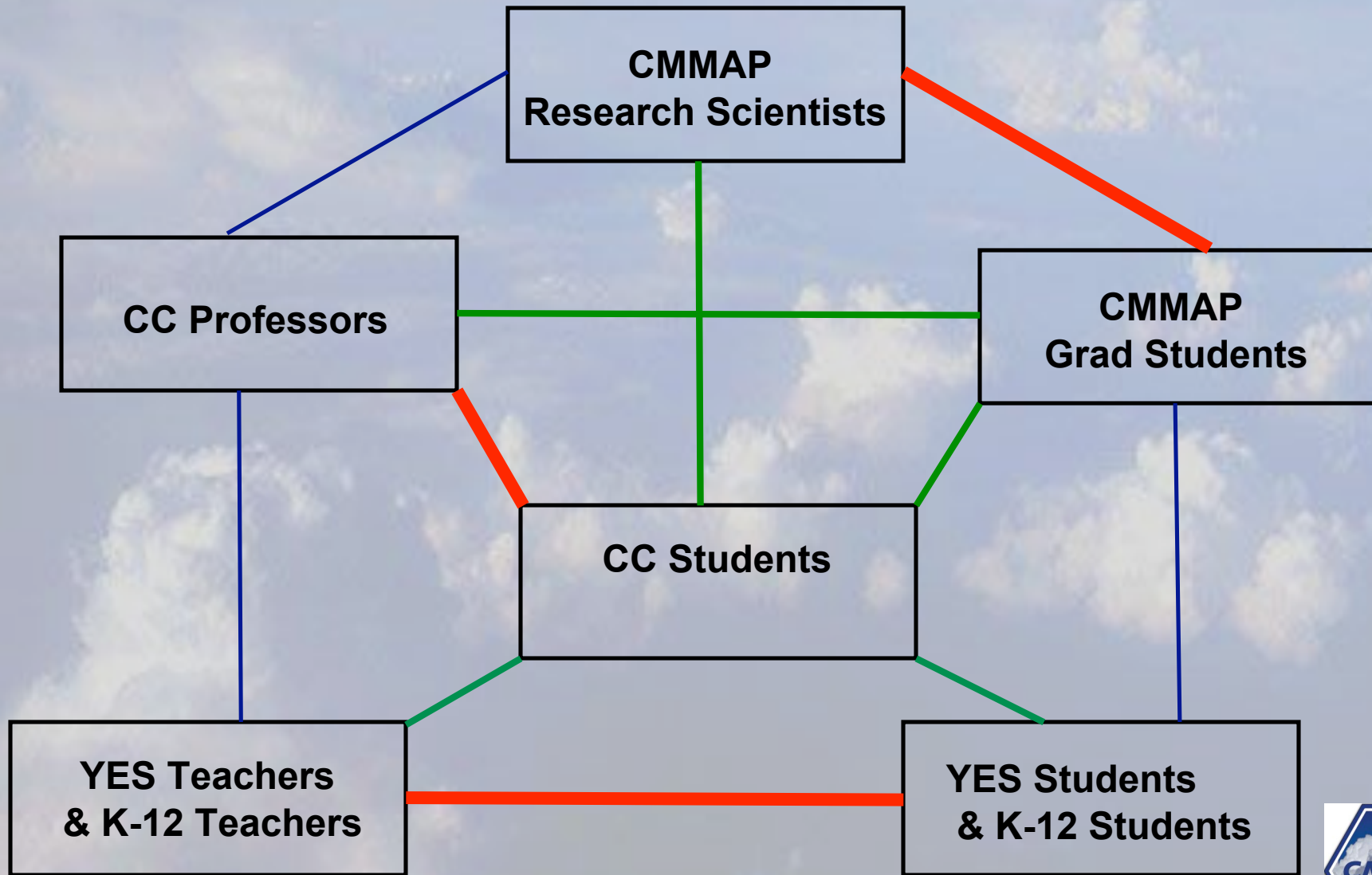


CC CMMAP Funding

- Two annual student scholarships:
Rebecca Simpson (U. Hawaii)
- Two annual summer undergraduate student research stipends
Beth Beckel (Collet); Parker Krauss (Denning); Gillian Bobier (Foster)
- One annual undergraduate block research stipend: Rebecca Simpson (Kreidenweis); Beth Beckel (Randall)
- Graduate Student Exchanges: Luke van Roekel (Air)
- Faculty Visits: David Randall CC Seminar and class visit



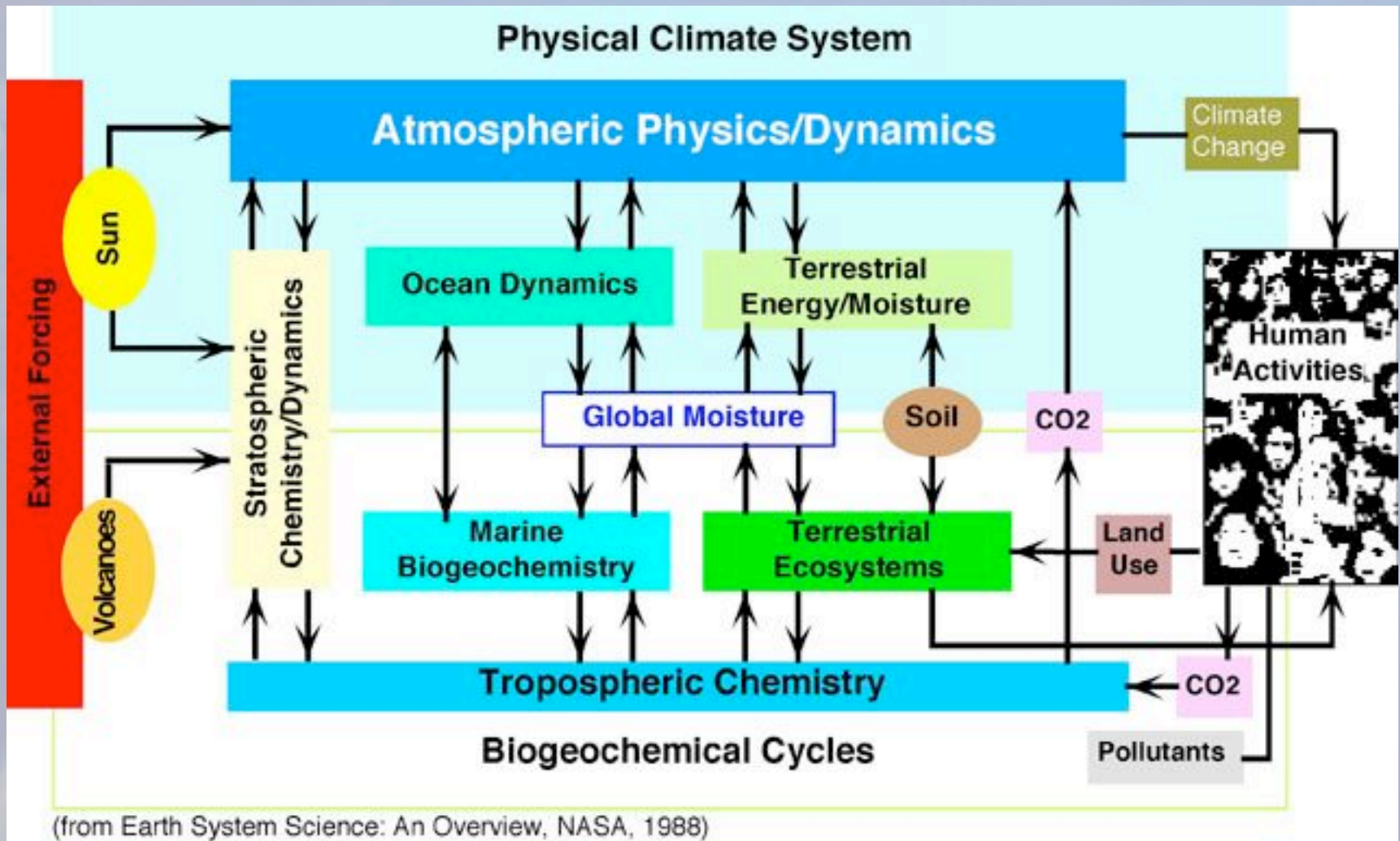
Systematic Project Integration

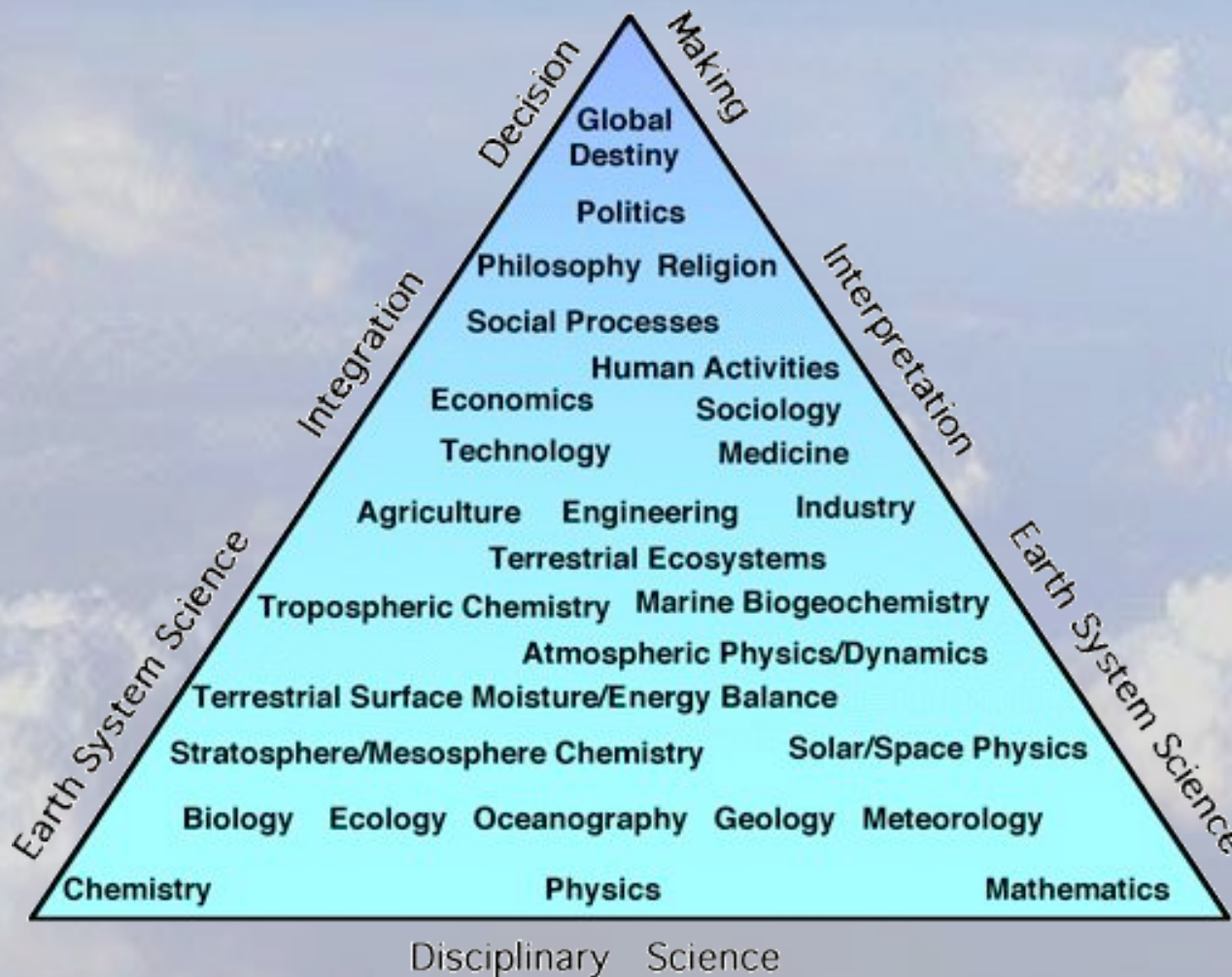


"Earth System Science courses are distinguished from Earth Science courses through their explicit multidisciplinary focus on the **connections, interactions and feedbacks** between the system components: atmosphere, hydrosphere, lithosphere, biosphere, anthroposphere, and exosphere."*

*Science Education Resource Center at Carleton College:
<http://serc.carleton.edu/introgeo/earthcoursedesign/whatis.html>







Johnson, D.R , Ruzek, M., Kalb, M., “Earth System Science and the Internet”, Computers and Geosciences, Special Issue: The Year 2000 Challenges, v. 26, no. 6, July, 2000 pp 669-676



EV 120: Introduction to
Environmental Science:
Global Climate Change

EV 128: Introduction to
Global Climate Change

EV 211: Human Impacts on
Biogeochemical Cycles



Systematic Curriculum Development

1. Understand the mission
2. Identify target audience and needs
3. Establish curricular goals/objectives
4. Evaluate existing curricular material
5. Assess students' prior knowledge
6. Match pedagogy to generative questions
7. Teach & evaluate with formative assessment
8. Summative assessment
9. Incorporate new findings (go to step 3)
10. Disseminate curriculum



EV 431: Air

Should Colorado College move the Children's Center to a larger site closer to the interstate highway?



Summative Assessment

Student Assessment of Learning Gains

Summary

