



What is GK- 12?

"GK-12" refers to an innovative program funded by the National Science Foundation (NSF): *Graduate Teaching Fellows in K-12 Education*. This program partners advanced graduate students in science, mathematics, engineering, and technology (SMET) disciplines with K-12 teachers, allowing for real-world learning and integration of computer-based modeling, scientific visualization, and informatics in science and mathematics education. The GK-12 Program is a collaboration between the University of Illinois at Urbana-Champaign, University of Alabama at Birmingham, and University of Alabama at Huntsville and their respective K-12 school partners. The annual teaching fellowships for selected graduate students provide rich opportunities for teaching and learning, building relationships between university faculty, school teachers, and the next generation of learners.

Across the country, teachers are partnered with scientist/fellows who work collaboratively in the classroom setting to enrich curriculum. Each fellow serves as both resident expert and student teacher, introducing "real" science as well as learning how to share that knowledge via education. Creating stronger, sustainable relationships between the science and education communities is a primary goal of the GK-12 Program, but not the only one.

A key aspect is exploring *how* we educate in the SMET disciplines, and the introduction of sophisticated, computer-based tools in a variety of K-12 environments allows students, teachers, fellows, and faculty to grow in their understanding of how technology can enrich our K-12 classrooms.

The GK-12 Program not only prepares future scientist/academics in their careers as researchers and educators, it plants the seeds necessary for the growth of future scientists and educators; bridging the gap between science and education, this generation and the next.

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The GK-12 program materials, including print and online publications, do not necessarily reflect the views of the National Science Foundation.

For more information, see our website:

<http://gk12.ncsa.uiuc.edu>

Contact:

Dr. Eric Jakobsson, Principal Investigator
Professor, Department of Molecular and Integrative Physiology
Senior Research Scientist, National Center for
Supercomputing Applications
University of Illinois
at Urbana-Champaign
Urbana, IL 61801
Telephone: (217) 244-2896
Email: jake@ncsa.uiuc.edu

Resources Include:

Biology Student Workbench

<http://bsw.ncsa.uiuc.edu>.

Biology Workbench is a computational, web-based tool designed for research, teaching, and learning. Biology Student Workbench is a K-12-friendly interface to this molecular biological resource.

ChemViz <http://chemviz.ncsa.uiuc.edu>

ChemViz is an interactive chemistry program that incorporates computational chemistry simulations and visualizations for use in the high school chemistry classroom.

Inquiry Page <http://inquiry.uiuc.edu>

The Inquiry Page is a web-based resource assisting educators and learners in realizing inquiry-based learning across communities.



Fellow/Mentor teams from the University of Alabama, Birmingham and University of Alabama, Huntsville visit UIUC Fellows, Teachers, and Mentors to share their GK-12 experiences.

