Inquiry Through Teamwork

The Activity-Based Physics and Astronomy Summer Institute for teachers in grades 6–9 offers a series of workshops over a five-day period (June 2-6, 2008). Participating teachers will focus on selected physics, physical science, and astronomy objectives from the Tennessee Science Curriculum Framework. The Institute will consist of hands-on activities, discussion sessions, laboratory experiments, building experiment set-ups, demonstrations, and unit and lesson plan design that promotes scientific inquiry.

Funding Information

The activity which is the subject of this publication was produced under a grant from the Tennessee Higher Education Commission and the U.S. Department of Education under the auspices of the Improving Teacher Quality Grant Program.
When and Where
Monday through Friday
June 2-6, 2008
On the campus of UT Martin, Martin, Tenn.

Curricular Areas
This Summer Institute is designed for West Tennessee science teachers in the 6th–9th grades, and will focus on the Tennessee Curriculum Framework objectives in the areas of

- Physics
- Physical Science
- Astronomy

Fields of Focus
Activities and teacher strategies will include:

- Measurement: length, volume, area, units, conversion, etc.
- Motion: speed, displacement, graphing, waves (sound and amplitude)
- Force: concept of force, Newton’s Laws
- Astronomy/Optics: building a telescope, spectroscopy
- Waves: amplitude, pulse, energy, speed (using a slinky)
- Electricity: electric charge, simple circuits
- Heat and temperature
- Simple Machines (pulley, inclined, lever)

Activities Planned
- Hands-on activities
- Using technology in experiments
- Discussion sessions
- Laboratory experiments
- Building experiment set-ups
- Demonstrations
- Units and lesson plan writing that promotes scientific inquiry

“What an opportunity to receive high quality equipment and software for the classroom while learning new physical science teaching strategies!”

What Participants Will Receive
- A $250 stipend
- A teacher kit (supplies) worth approximately $1,400 (includes computer interface for data collection)
- Meals and housing for the week
- Computer simulations
- Hand-outs/directions for the activities

Option for Graduate Credit
UT Martin will provide a 3 graduate-hour level course (PHYS691, first summer session) that incorporates both the Institute and additional work. The university will waive the tuition and fees for this class. Please observe deadline below.

Deadline to Apply
The deadline for application to the Institute is May 9, 2008. Due to limited space, only 20 participants will be selected to attend.

Activity-Based Physics/ Astronomy Summer Institute 2008 Technology Version Application Form
(may be duplicated as needed)

Name (Please print) ____________________________
School ______________________________________
School Address _______________________________
City ___________________ State _____ Zip ______
School Phone _________________________________
Home Phone _________________________________
Email Address ________________________________
Grade(s) Taught ______________________________
Subject(s) Taught ______________________________
County ______________________________________
Areas of science teaching I would like to enhance ______________________________

Are you interested in graduate credit? ☐ Yes ☐ No
Contact Dr. Erkal if your answer is yes and start your graduate student application at the UT Martin web site.

Mail to:
Dr. Cahit Erkal
Department of Geology, Geography and Physics
222E EPS Building
The University of Tennessee at Martin
Martin, TN 38238

For information, contact Dr. Erkal
Phone: 731-881-7432
Email: cerkal@utm.edu
Internet: www.utm.edu/staff/cerkal/cahit.htm

Dept. of Geology, Geography, and Physics
Phone: 731-881-7430
Fax: 731-881-7434