

Modeling Workshop in Mechanics

July 26 – August 6, 2010 at Greenhill School

Greenhill School will host a Physics Modeling Workshop from July 26 – August 6, 2010.

About the Workshop

Modeling Workshops provide a structured inquiry approach to high school physics teaching that incorporates computer technology and insights from physics education research. Emphasis is placed on the use of basic models and modeling in mechanics.

Participants develop skills in fostering scientific discourse among students and in the assessment of student learning.

This intensive 2-week workshop will run from 8:00-4:00 for 10 days, and will focus on topics in mechanics including motion, force, and energy. In addition, participants will be provided with detailed materials to help them apply the modeling method in other areas of the first-year physics curriculum, including momentum, electricity and magnetism, mechanical waves, light and basic quantum physics.

Each participant will design and carry out a series of investigations that use the Modeling Method. Participants will practice Socratic questioning techniques that will enable them to teach physics using the Modeling Method. Each participant will keep a daily journal book of problems solved, labs done, personal notes and reactions to activities and readings, and expected student difficulties and ways of addressing them.

More information about Modeling Instruction can be found at <http://modeling.asu.edu>.

Objectives of the Modeling Workshop:

- To train teachers in the use of a model-centered, constructivist method of teaching and at the same time to improve their content knowledge in mechanics.
- To integrate computer courseware effectively into the physics curriculum.
- To establish electronic network support and a learning community among participants.
- To help participants to make better use of national resources for physics education.
- To strengthen local institutional support for participants as school leaders in disseminating standards-based reform in science education.

Physics Modeling Workshop Registration

Name: _____

School District: _____

School: _____

Physics Courses and Grade Levels Currently Teaching:

Registration Fee: \$295.00

Make check payable to Greenhill School. The registration form and check must be received by June 2nd, 2010. Mail checks and registration forms to:

**Greenhill School
c/o Phyllis Spare
4141 Spring Valley Road
Addison, TX 75001**

