“NSTA Symposium: Picture-Perfect Science Lessons”
Friday, December 2, 2005

8:00 AM – 8:15 AM
Registration

8:15 AM – 8:35 AM
Welcome, Introductions, Goals for the Symposium
Al Byers, Assistant Executive Director of Government Partnerships and e-Learning, NSTA
Claire Reinburg, Director NSTA Press, NSTA
Flavio Mendez, Symposia and Web Seminars Program Manager, NSTA
• About NSTA Symposia
• Agenda/Goals
• Forms/Credit Info/Logistics
• Introductions
Karen Ansberry, Co-Author Picture-Perfect Science Lessons, Elementary Science Curriculum Leader Mason City, Ohio Schools
Emily Morgan, Co-Author Picture-Perfect Science Lessons, Science Consultant, Hamilton County Educational Service Center, Cincinnati, OH

8:35 AM – 9:05 AM
Opening Activity: Reading and Scientific Inquiry
Learning Outcomes:
• Learners will build upon their current knowledge of using reading comprehension strategies in the content areas.
• Learners will gain knowledge of current research supporting the use of picture books and reading comprehension strategies in the science classroom.
• Learners will become familiar with the essential features of inquiry and the BSCS 5E instructional model.

9:05 AM – 9:45 AM
Picture-Perfect Science Lesson: Turtle Hurdles
Learning Outcomes:
• Learners will gain knowledge of the threats to the survival of sea turtles.
• Learners will understand that changes in a sea turtle’s environment can be natural or influenced by humans.

9:45 AM – 10:00 AM
Mid-Morning Break
10:00 AM – 10:30 AM
**Picture-Perfect Science Lesson: The Changing Moon**

**Learning Outcomes:**
- Learners will understand that the moon moves across the sky on a daily basis and that the observable shape of the moon changes from day to day in a cycle that lasts about a month.
- Learners will model the positions and movements of the earth, moon, and sun that cause moon phases.

10:30 AM – 11:10 AM
**Picture-Perfect Science Lesson: Sheep in a Jeep**

**Learning Outcomes:**
- Learners will gain knowledge of the forces influencing the position and motion of objects.
- Learners will propose and test an invention to slow the fall of an object.

11:10 AM – 11:30 AM
**Book Talk on Favorite Picture Books for Teaching Science**

**Learning Outcomes:**
- Learners will expand their knowledge of high-quality children’s picture books that can be used to guide science inquiry.

11:30 AM – 11:40 AM
**A Sense of Wonder PowerPoint Presentation**

11:40 AM – 12:00 PM
**Final Words**
- Post-assessment form
- Evaluation form/Survey
- NSTA Web Seminars
- Raffle of door prizes
Standards Addressed:

Professional Development Standard B
- Address teachers’ needs as learners and build on their current knowledge of science content, teaching, and learning.
- Use inquiry, reflection, interpretation of research, modeling, and guided practice to build understanding and skill in science teaching.

Content Standard A
- Abilities Necessary to Do Scientific Inquiry
  - Ask a question about objects, organisms, and events in the environment.
- Understandings About Scientific Inquiry
  - Scientific investigations involve asking and answering a question and comparing the answer with what scientists already know about the world.

Content Standard B
- Position and Motion of Objects
  - The position and motion of objects can be changed by pushing or pulling.
  - The size of the change of position and motion is related to the strength of the push or pull.

Content Standard C
- Organisms and Environments
  - When the environment changes, some plants and animals survive and reproduce, and others die or move to new locations.
  - Humans depend on their natural and constructed environments. Humans change environments in ways that can be either beneficial or detrimental for themselves and other organisms.
  - All organisms cause changes in the environment where they live. Some of these changes are detrimental to the organism or other organisms, whereas others are beneficial.

Content Standard D
- Objects in the Sky
  - As the moon circles our planet, the angle formed by the sun, Earth, and moon changes. It is this change that produces the moon phases that we see from Earth.
- Changes in Earth and Sky
  - Objects in the sky have patterns of movement.
  - The moon moves across the sky on a daily basis much like the sun.

Content Standard E
- Abilities of Technological Design
  - Identify a problem or design an opportunity and propose a solution.
Content Standard F

- Changes in Environments
  - Changes in environments can be natural or influenced by humans. Some changes are good, some are bad, and some are neither good nor bad.
  - Pollution is a change in the environment that can influence the health, survival, or activities of organisms, including humans.

- Natural Hazards
  - Human activities can induce hazards through resource acquisition. Such activities accelerate many natural changes.