Thursday, March 31, 2005

1:00-1:30
Welcome, Introductions, Goals for the Symposium

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 Lab Teacher and Science Department Chair, Mason City, Ohio Schools
Al Byers, Director Professional Programs and e-Learning, NSTA
Claire Reinburg, Director NSTA Press
Mark Bosveld, NSTA Institute Program Manager, NSTA
- College Credit forms
- Pre-evaluation forms
- Goals for the Day

1:30 - 2:30
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.

2:30 -- 3:00
Picture-Perfect Science Lesson: Turtle Hurdles
- 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.

3:00 – 3:15
BREAK

3:15-3:55
Picture-Perfect Science Lesson: The Changing Moon
- 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.
3:55 - 4:35
**Picture-Perfect Science Lesson: Sheep in a Jeep**
- 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.

4:35 - 4:55
**Book Talk on Favorite Picture Books for Teaching Science**
- Learners will expand their knowledge of high-quality children’s picture books that can be used to guide science inquiry.

4:55 - 5:00
**A Sense of Wonder PowerPoint Presentation**

5:00 - 5:15
**Post-evaluation form**
**Perception Feedback Survey**
**Raffle for Book Sets and prizes!!**

Mark Bosveld
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.