



Daily Program

This preliminary program is current as of September 18, 2008. You can make your own current conference schedule using the Charlotte Session Browser/Personal Scheduler (www.nsta.org/charlottebrowser). Browse events by day, format, subject, grade level, conference strand, sponsor, or keyword. When you see an event you like, simply click the button to add it to your schedule. View and revise your personal schedule as often as you like—plan ahead!

You can find a list of short courses and exhibitor workshops by using the Charlotte Session Browser/Personal Scheduler (www.nsta.org/charlottebrowser) and selecting event format “short courses” or “exhibitor workshops,” respectively and then clicking the “browse events” button.

Thursday, October 30

8:00–8:30 AM

If You Want Your Children to Be Intelligent, Read Them Fairy Tales—Albert Einstein (Gen)
 Tricia Easterling, Radford University, Radford, Va.; Jeradi Cohen, University of Virginia, Roanoke

8:00–9:00 AM

Helping High School Students Write Their Own Scientific Experiments (Bio)
 Kristen R. Dotti, Christ School, Arden, N.C.

Does the Use of Differentiated Instruction Increase Student Achievement? (ASSESS) (Gen)
 Betty C. Anderson, Skyview Elementary School, Lizella, Ga.

Assessing Student Notebooks: Beyond Rubrics (ASSESS) (Gen)
 Carla M. Billups, Jonathan Valley Elementary School, Waynesville, N.C.

You, Too, Can Be a Rocket Scientist (Phys)
 Elicia “Dynaë” Fullwood, NASA Langley Research Center, Hampton, Va.

Teaching Earth Science Topics with MY NASA DATA (Earth)
 Susan W. Moore, NASA Langley Research Center/Science Systems and Applications, Inc., Hampton, Va.

“Erupting” with Enthusiasm: Using a Case Study to Guide Inquiry in Your Classroom (Gen)
 Gina M. Barrier and Michelle Benigno, The Science House, North Carolina State University, Lenoir

International Year of Astronomy 2009—Get Ready Now! (Earth)
 John McFarland, Johannes Kepler Project, Charleston, S.C.

Science Area

- (Bio) = Biology/Life Science
- (Chem) = Chemistry/Physical Science
- (Earth) = Earth/Space Science
- (Env) = Environmental Science
- (Gen) = Integrated/General
- (Phys) = Physics/Physical Science

Conference Strands

- (ASSESS) = Assessment for Understanding
- (BIOTECH) = Biotechnology as an Economic Engine
- (PHYS) = Fearlessly Teaching Physical Science in the Elementary Classroom

Special Programs

- AAPT = Physics Day sponsored by AAPT
- ACS = Chemistry Day sponsored by ACS
- NABT = Biology session sponsored by NABT
- PSESD = Physical Science and Earth Science Day sponsored by ACS, AGI, and APS

Science IS...Teaching Inquiry Safely in the Elementary Classroom (Gen)

Linda M. Stroud and Clara A. Stallings, Science & Safety Consulting Services, Raleigh, N.C.; Todd J. Korbusieski, John A. Holmes High School, Edenton, N.C.

Teaching Elementary Science Using the 5E Lesson Plan (Phys)

Georgette M. Rush and Terry J. Gatlin, Fred A. Anderson Elementary School, Bayboro, N.C.

Environmental Technology and Inquiry (Env)

Beth Snoke Harris, Science Is Fun!, Hendersonville, N.C.

Digitizing the Science Classroom: Preparing Students for the Global Society (Gen)

Ben Smith, Red Lion Area High School, Red Lion, Pa.

Teachers of Teachers of Science in North Carolina I (Gen)

Kate Popejoy, The University of North Carolina at Charlotte

Demystifying the Assessment of Scientific Knowledge in the Diverse Classroom (Gen)

Charles B. Hutchison, The University of North Carolina at Charlotte

Teaching Physics with Inquiry and a Problem-based Approach (Phys)

Becky Reynolds, Sonoraville High School, Calhoun, Ga.

Literacy-based Elementary Earth Science (Env)

Sarah F. Smith and Alisa B. Wickliff, The University of North Carolina at Charlotte; Kimberly Garrett, Environmental Educator, Charlotte, N.C.

Biotechnology and Today's Cash Crops (BIOTECH) (Bio)

Louise W. Lamm and Ellen B. Gould, North Carolina Farm Bureau, Raleigh

Fire and Ice: NASA's MESSENGER and Phoenix Missions Bring the Solar System to Your Classroom (Earth)

Susie Miller, Sparta Elementary School, Sparta, N.C.

Graphic-enhanced Elementary Science (PHYS) (Phys)

Eric N. Wiebe, James Minogue, John Bedward, and Lauren Madden, North Carolina State University, Raleigh

Science Through Literacy (Gen)

Angela M. Clayton, West Oxford Elementary School, Oxford, N.C.

Learn the Sky (Earth)

Amy E. Sayle, The University of North Carolina at Chapel Hill

Earth Dynamics and Human Civilization, Part 1 (Earth)

Stanley R. Riggs, David J. Mallinson, and Steve J. Culver, East Carolina University, Greenville, N.C.

Innovative Techniques for Monitoring Science Comprehension in the Secondary Classroom (Gen)

R. Michael Holler and Laurissa L. Yarborough, Harriman High School, Harriman, Tenn.

Teaching Climate Change Using NOAA Resources During the International Polar Year and Beyond (Gen)

Kirk Beckendorf, NOAA, Washington, D.C.

Monitoring and Mapping Turtles in an Urban Environment (Bio)

Kimberly Burge and Susannah Thompson, North Carolina Wildlife Resources Commission, Raleigh

Physical Science Rules the World (Gen)

Betty Preece, Society of Women Engineers, Indialantic, Fla.

Chemistry Applications: Drugs, DNA, and Detectives (Chem)

Patricia B. Ligon, Broughton High School, Raleigh, N.C.

Stop Faking It! Finally Understand Chemistry Basics II So You Can Teach It (Chem)

Bill Robertson, Bill Robertson Science, Inc., Woodland Park, Colo.

First-Time Conference Attendees' Orientation (Gen)

Ken Rosenbaum, NSTA Chapter Relations Consultant, Prospect, Ky.

CSSS Session: South Carolina Physical Science Companion Project (Chem)

Linda D. Sinclair, South Carolina Dept. of Education, Columbia; Demetria Atkins, The South Carolina Governor's School for Science and Mathematics, Hartsville; Kim Warren-Page, Easley, S.C.; Jerry Martin, Latta, S.C.; Jo Killoy, Columbia, S.C.; Norma L. Ashburn, Hanahan High School, Hanahan, S.C.

9:15–10:30 AM

General Session: Forensic Anthropology: From Crime Lab to Crime Fiction (Gen)

Kathy Reichs, Best-selling Author and Forensic Anthropologist, The University of North Carolina at Charlotte

12:30–1:30 PM

Let's Look at How Science REALLY Works! (Gen)

Anna Thanukos, University of California Museum of Paleontology, Berkeley

Integrate Flight in Science and Math (Earth)

Jayson Duncan, Retired Educator, Pine Hall, N.C.; Jay Duncan, Roaring River Elementary School, Roaring River, N.C.

Assessment Is a Four-Letter Word: TOOL (Gen)

Kathleen B. Ortlund and Linda Schoen-Giddings, South Carolina Dept. of Education, Columbia

Teachers' Bag of Tricks: The Toys Every Teacher Needs to Know About! (Gen)

Lawrence G. Volk, John T. Hoggard High School, Wilmington, N.C.

Enrich Your Lessons on HIV with Resources from the Howard Hughes Medical Institute (Bio)

Anthony Bertino, University at Albany, Scotia, N.Y.; Patricia Nolan Bertino, Retired Educator, Scotia, N.Y.

Emerging Leaders: Developing Science Leaders, the NCSLA Science Leadership Fellows Program Model

(Gen)

Mary Louise Bellamy, North Carolina State University, Raleigh; Pat M. Shane, NSTA President-elect, and The University of North Carolina at Chapel Hill; Darlene C. Ryan, Chapel Hill-Carrboro City Schools, Chapel Hill, N.C.; Donna Melpolder, Chatham County Schools, Pittsboro, N.C.

Teaching Technological Design Through NASCAR

(Phys)

Megan W. McNutt and Jennifer A. Larkin, J.N. Fries Middle School, Concord, N.C.

Positive Approaches in the Prevention of Childhood Obesity

(Bio)

Debra K. Goodwin and Paula K. Napoli, Jacksonville State University, Jacksonville, Ala.

Why Your School Should Fund Your Trip to the Beach

(Earth)

Alex M. LeMay, Durham School of the Arts, Durham, N.C.; Sam Fuerst, Northern High School, Durham, N.C.

An Enlightening Experience

(Phys)

Judith R. McDonald, Belmont Abbey College, Belmont, N.C.

It's Elementary...and Cheap!

(Chem)

Tommie C. Evans, Northern Middle School, Roxboro, N.C.; Jewel Hamlett, Bether Hill Charter School, Roxboro, N.C.

Making Superfund Relevant to Your Students

(Env)

Kathleen Gray, The University of North Carolina at Chapel Hill

Teachers of Teachers of Science in North Carolina III

(Gen)

Warren J. DiBiase, The University of North Carolina at Charlotte

Einstein Fellowships: Spend a Year in Washington, D.C., at a Federal Agency

(Gen)

Kirk Beckendorf, NOAA, Washington, D.C.

Nothing to Fear—Get Physical Science Tradebooks Here!

(Phys)

Steve Rich, Georgia Dept. of Education, Atlanta

The ABCs of Discover, Design, Differentiate—With a Physics Twist!

(Phys)

Wayne A. Fisher, Charlotte Mecklenburg Schools, Charlotte, N.C.

Success Stories: How We Used Probeware to Explore Real-Life Problems

(Gen)

Margaret R. Blanchard, Lisa L. Grable, and Jennifer L. Sharp, North Carolina State University, Raleigh

Earth Dynamics and Human Civilization, Part 2

(Earth)

Stanley R. Riggs, Karen R. Dawkins, and Steve J. Culver, East Carolina University, Greenville, N.C.

NASA Spectroscopy Activities, Analysis, and Data in Your Classroom

(Earth)

Sara E. Mitchell, SP Systems, Inc., and NASA Goddard Space Flight Center, Greenbelt, Md.; James Lochner, Universities Space Research Association and NASA Goddard Space Flight Center, Greenbelt, Md.

Activities in Air Quality for the Secondary Classroom

(Gen)

Timothy Cooney, University of Northern Iowa, Cedar Falls

Lesson Study: Making It Happen

(ASSESS) (Gen)

Catherine W. Horne and Bethany Fleener, Wake County Public School System, Raleigh, N.C.; Michael Klentschy, San Diego State University, Imperial Valley Campus, Calexico, Calif.

CESI Session: Dumbledore's Transfiguration Class: Science and Magic from Hogwart's Academy

(PHYS) (Phys)

Alan J. McCormack, CESI President, and San Diego State University, San Diego, Calif.

Biotechnology and Environmental Risk: Project Learning Tree's New Secondary Program

(BIOTECH) (Env)

Al Stenstrup, Project Learning Tree, American Forest Foundation, Washington, D.C.; Renee Strnad, North Carolina State University, Raleigh

iWalk the Eno

(Gen)

Bruce L. Middleton, Orange County Schools, Hillsborough, N.C.; Eric McDuffie, C.W. Stanford Middle School, Hillsborough, N.C.; Kathy Lee, Eno River Association, Durham, N.C.

Project-based Assessments for Middle Grades Students

(Gen)

Robbie L. Higdon, Hughes Academy of Science and Technology, Greenville, S.C.; Shawn M. Varner, Bell Street Middle School, Clinton, S.C.

Science in a Container

(Gen)

Phyllis Taylor, Jennifer Strain, Gena Riley, and Dale Campbell, Jacksonville State University, Jacksonville, Ala.

"Seeing the Invisible": Exploring the Electromagnetic Spectrum

(Phys)

Christine A. Royce, NSTA Director, District IV, and Shippensburg University, Shippensburg, Pa.

Starting an NSTA Student Chapter: Faculty and Student Perspectives

(Gen)

Howard Wahlberg, Assistant Executive Director, Member, Chapter, and Customer Relations, NSTA, Arlington, Va.

Student Presentations: Summer Ventures in Science and Mathematics

(Gen)

Floyd E. Mattheis, East Carolina University, Greenville, N.C.

Ignite Student Learning with Science Olympiad

(Gen)

Kelly R. Price, NSTA Director, District V, and Forsyth County Schools, Cumming, Ga.

2:00–3:00 PM

Win the \$10,000 Shell Science Teaching Award (Gen)

Kathleen B. Horstmeyer, Teacher Consultant, Carefree, Ariz.

Enzymes and Biotechnology (BIOTECH) (Bio)

Mary Phillips, Tulsa Community College, Tulsa, Okla.

Presenting an Effective Family Science Night (Gen)

Kenneth T. Micai, Hunterdon Central Regional High School, Flemington, N.J.

The Invisible Universe (Earth)

Rae A. McEntyre, Kentucky Dept. of Education, Frankfort

Embryology in the Classroom (Bio)

M. Brie Matthews, Poughkeepsie, N.Y.; Stephanie B. Matthews, Retired Educator, Poughkeepsie, N.Y.

Hands-On Project Assessments (Gen)

Susan A. Kautzer, Dupo Junior High School, Dupo, Ill.

Risky Business: Students' Perceptions of the Risks and Benefits of Nanotechnology Applications (BIOTECH) (Gen)

Grant E. Gardner, Gail Jones, Jennifer Forrester, Denise Krebs, and Laura Robertson, North Carolina State University, Raleigh; Amy R. Taylor, University of North Carolina, Wilmington

Detangling Common Science Misconceptions Using Discrepant Events (PHYS) (Gen)

Lauren T. Burdick, Trinity Elementary School, New Port Richey, Fla.

Chemistry of the National Parks (Chem)

Ed Waterman, Rocky Mountain High School, Fort Collins, Colo.

Hands-On Environmental Science Activities That Are Inquiry Based (Env)

Mary Louise Bellamy, North Carolina State University, Raleigh

Teaching Physical Science Concepts for Understanding and Retention: It Can Be Done! (Phys)

Paul C. Beisenherz, Western Washington University and Walden University, Everett; Marylou Dantonio, Walden University, Marshall, Minn.

Using Toys in Science (Gen)

Kecia N. Coln, J.N. Fries Middle School, Concord, N.C.

Exploring Electricity Through Invention Convention (Phys)

Briana Corke, Carrboro Elementary School, Carrboro, N.C.

Life of the Aquifer: A Partnership for Engaging Under-served Grades 9–12 Students in Local Geology (Earth)

Rachel A. McBroom and Martin Farley, The University of North Carolina at Pembroke

Become a “Teacher at Sea” with NOAA Scientists (Gen)

Kirk Beckendorf, NOAA, Washington, D.C.

Teachers of Teachers of Science in North Carolina II (Gen)

Sarah J. Ramsey, The University of North Carolina at Charlotte

Using Picture Cards of Insects' Legs to Study Diversity (Bio)

Tetsuya Narukawa, Elementary School attached to Fukushima University, Fukushima City, Japan

Fearlessly Extending Your Lessons on Electricity (Phys)

Barbara B. Leonard, High Point University, High Point, N.C.

Earth Dynamics and Human Civilization, Part 3 (Earth)

Stanley R. Riggs, Karen R. Dawkins, and Dorothea V. Ames, East Carolina University, Greenville, N.C.

Integrating Assessment into High School Science Inquiry Learning (Bio)

Barbara Schulz, Science Education Consultant, Black Butte Ranch, Ore.; Carolee Dodge Francis, American Indian Research and Education Center, University of Nevada, Las Vegas

Taking Flight: Bringing Aviation into the Classroom (Phys)

John B. Austin and Michael A. Katz, Discovery Place, Inc., Charlotte, N.C.

What Were They Thinking? Uncovering Students' Ideas with Formative Probes and FACTS (ASSESS) (Gen)

Joyce B. Tugel, Maine Mathematics and Science Alliance, Augusta

Enhancing Understanding Through Hands-On Field Activities: A Partnership Between a Public School System, a Private University, and Local Conservation Agencies (Env)

Jessica Braswell, Queens University of Charlotte, N.C.

Mapping the Arctic Ocean (Earth)

Sam I. Fuerst and Joshua D. Roberts, Northern High School, Durham, N.C.

NMLSTA Session: Learn Chemistry Concepts Using the Hands On Plastics™ 2 Kit (Chem)

Annette Barzal, NMLSTA President, and Science Consultant, Medina, Ohio; Dale J. Rosene, Marshall Middle School, Marshall, Mich.; Rebecca H. Knipp, Sunman-Dearborn Intermediate School, West Harrison, Ind.

Modeling the Electromagnetic Spectrum (Phys)

Christine A. Royce, NSTA Director, District IV, and Shippensburg University, Shippensburg, Pa.

Before and After Retirement: Practicalities and Possibilities (Gen)

Howard Wahlberg, Assistant Executive Director, Member, Chapter, and Customer Relations, NSTA, Arlington, Va.

Stop Faking It! Finally Understand Chemistry Basics I So You Can Teach It (Chem)

Bill Robertson, Bill Robertson Science, Inc., Woodland Park, Colo.

AMSE Session: Navigating the Cultural Divide: Teaching Science in the Urban Classroom (Earth)

Harriet R. Morrison, J. Sargeant Reynolds Community College, Richmond, Va.

3:30–4:00 PM

Biotechnology and Inquiry-based Learning Course (Gen)

Warren J. DiBiase and Todd Steck, The University of North Carolina at Charlotte

3:30–4:30 PM

Featured Presentation: Applying the Biotechnology Toolbox Across Industries (BIOTECH) (Gen)

William E. Schy, Manager, Education and Training Program, North Carolina Biotechnology Center, Research Triangle Park

Measuring the Monster in the Middle (Earth)

Rae A. McEntyre, Kentucky Dept. of Education, Frankfort

Attention Science Teachers and Administrators! Come Learn How to Win \$\$\$\$ by Winning One of Many NSTA Awards! (Gen)

Ruth Ruud, Chairperson, NSTA Awards and Recognition Committee, Fairview, Pa.

Hands-On Activities for Teaching the Basic Physical Quantities of Mechanics (Phys)

Timothy M. Ritter, Peter A. Wish, and Rachel A. McBroom, The University of North Carolina at Pembroke

Building Partnerships to Improve Teacher Quality and Student Outcomes: The Cleveland Math and Science Partnership (Gen)

Bill Badders, Cleveland (Ohio) Metropolitan School District; Julie Gielow, H.Barbara Booker K–8 Academy, Cleveland, Ohio

CSI—Elementary Style (Gen)

Michelle Ellis, Lingerfeldt Elementary School, Gastonia, N.C.

CSI + DNA + NCCAT = Exciting Science in Your Classroom! (BIOTECH) (Gen)

Renee H. Coward and Julius W. Peter, North Carolina Center for the Advancement of Teaching, Cullowhee

X-treme School Science Facilities Makeovers for Effective, Safe Teaching and Learning (Gen)

LaMoine L. Motz, 1988–1989 NSTA President, and Oakland Schools, Waterford, Mich.; James T. Biehle, Inside/Out Architecture, Kirkwood, Mo.; Sandra West, Texas State University, San Marcos; Juliana Texley, Palm Beach Community College, Boca Raton, Fla.

Extreme Science: Size and Scale (Gen)

Gail Jones, Jennifer Forrester, Denise Krebs, Laura Robertson, and Grant Gardner, North Carolina State University, Raleigh; Amy Taylor, University of North Carolina, Wilmington; Michael Falvo, The University of North Carolina at Chapel Hill

Creating a Powerful Synergy with Hands-On Investigations, Science Literacy Skills, and Science Content in the K–6 Science Classroom (Gen)

Donna L. Knoell, Educational Consultant, Shawnee Mission, Kans.

Conceptual Chemistry: Forensic Analyses of Amino Acids, Proteins, and Artificial Sweeteners (Chem)

Christopher J. Fenk and Donald G. Gerbig, Kent State University-Tuscarawas, New Philadelphia, Ohio; Claudia Khourey-Bowers, Kent State University-Stark, North Canton, Ohio

Teaching Electricity: Getting Current (Phys)

Jennie S. Lavine, The Pennsylvania State University, University Park

The Physics and Biology of Radiation (Gen)

Samuel R. Wheeler, William G. Enloe Magnet High School, Raleigh, N.C.

UODs (Unidentified Old Devices): Using Old-Time Inventions and Oddities to Stimulate Inventiveness (Gen)

Alan J. McCormack, CESI President, and San Diego State University, San Diego, Calif.

Using a Hand-operated Generator to Study Energy and the Environment (Env)

Yoshitaka Tanioka, Elementary School attached to Nara Women University, Nara, Japan

Science Leadership in an Age of Accountability (Gen)

Gregory MacDougall, NSTA Director, District VI, and University of South Carolina, Aiken; Barry R. Thompson, Augusta State University, Augusta, Ga.

Simple Machines (PHYS) (Phys)

Bob Koszelak and Kim Lehnes, Rocky Mount Academy, Rocky Mount, N.C.

Exciting Earth/Environmental Science Resources to Help You Meet the Standard Course of Study (Earth)

Jack Hall, University of North Carolina, Wilmington

Integrating Real-Time Weather Data into Middle School Meteorology (Earth)

Timothy Cooney, University of Northern Iowa, Cedar Falls

Using Oobleck to Teach Properties of Objects and Materials (Gen)

Sarah J. Ramsey, The University of North Carolina at Charlotte

Wonderful Wikispaces! Free Webpages for Teachers (Gen)

Leslie U. Bradbury and Jeff M. Goodman, Appalachian State University, Boone, N.C.

Curriculum Mapping: Analyzing Affective Results and Other Consequences (Gen)

Joyce M. Gleason, Educational Consultant, Punta Gorda, Fla.

NMLSTA Session: Science Teacher to Technology Teacher—Lessons Learned (Gen)

Dale J. Rosene, Marshall Middle School, Marshall, Mich.

CESI Session: More Than a Water Cycle? The Physical Science of Water (Chem)

Barbara Z. Tharp, Baylor College of Medicine, Houston, Tex.

New Professional Development Providers: What You Need to Know and Be Able to Do (Gen)

Gwen Pollock, NSTA Director, Professional Development, Sherman, Ill.

Stop Faking It! Finally Understand LIGHT and SOUND So You Can Teach It (Phys)

Bill Robertson, Bill Robertson Science, Inc., Woodland Park, Colo.

Siemens “We Can Change the World Challenge”: Seven Tech Tips for Teaching About a Greener Tomorrow (Env)

Lance Rougeux, Director, Discovery Educator Network, Discovery Education, Silver Spring, Md.

4:00–4:30 PM

Amphibians and Reptiles of the Southeast (Bio)

Terry Tomasek, Elon University, Elon, N.C.; Jeff Hall, North Carolina Partners in Amphibian and Reptile Conservation, Greenville; Grover Barfield, North Carolina Herpetological Society, Greensboro; Zach Barfield, North Carolina Dept. of Environment and Natural Resources, Greensboro

Friday, October 31

8:00–8:30 AM

Science Teacher Practices (Gen)

Kecia N. Coln, J.N. Fries Middle School, Concord, N.C.

8:00–9:00 AM

How to Make the History of Atomic Theory Interesting to Learners (Chem)

Nikki Malatin and Carol West, West Caldwell High School, Lenior, N.C.

Evolution Now! Educational Resources from the National Evolutionary Synthesis Center (Bio)

Kristin P. Jenkins and Jory Weintraub, National Evolutionary Synthesis Center, Durham, N.C.

Inquiry Done Well: What Are the Essential Elements? (Gen)

Terry Shaw and Virginia Reid, Lawrence Hall of Science, University of California, Berkeley

From Ocean Floor to Lab Bench (BIOTECH) (Chem)

Eric A. Grunden, Raleigh Charter High School, Raleigh, N.C.

Manipulatives for and During Biology Assessment (Bio)

Renee R. Brice, Hopewell High School, Hopewell, N.C.

Are You Smarter Than an Elementary School Student? Clearing Up Common Misconceptions in Elementary School Science (ASSESS) (Gen)

Olga S. Jarrett, Brian Williams, and Ruby Champion, Georgia State University, Atlanta; Meron Y. Shiferaw, Centennial Place Elementary School, Atlanta, Ga.; Bianca Jones, Burgess-Peterson Academy, Atlanta, Ga.; Sakon Kieh, Cleveland Avenue Elementary School, Atlanta, Ga.; Bejanae Kareem, Parkside Elementary School, Atlanta, Ga.; Stacey Bradley, Heritage Academy, Atlanta, Ga.

Gizmo Excitement for Students and Teachers (Gen)

Kris Campesi, Stafford Middle School, Stafford, Va.

Quantoons: Cartoons for Science Engagement (Phys)

Arthur Eisenkraft, 2000–2001 NSTA President, and University of Massachusetts, Boston

Physics in a Baggie® (PHYS) (Phys)

Jenny E. Mercer, The Health Adventure, Asheville, N.C.

Linking Home and School with P.A.S.S.© (Portable Affordable Simple Science) (Gen)

Renee G. O’Leary and Margaret S. Dee, Caravel Academy, Bear, Del.

The Science of Sports (Phys)

Michelle M. Ellis, Lingerfeldt Elementary School, Gastonia, N.C.

Air Quality Education Made Fun, Easy, and Interactive (Env)

Donna Rogers, U.S. Environmental Protection Agency, Research Triangle Park, N.C.

International Year of the Reef 2008—Studying the Rain Forests of the Oceans Using NOAA Resources (Env)

Kirk Beckendorf, NOAA, Washington, D.C.

Transforming Student Awareness of Reptile and Amphibian Diversity (Env)

Terry Tomasek, Elon University, Elon, N.C.; Catherine E. Matthews, The University of North Carolina at Greensboro; Susannah Thompson and Kimberly Burge, North Carolina Wildlife Resources Commission, Raleigh

Curriculum Topic Study (CTS): Bridging the Gap Between Standards, Research, and Classroom Practice (Gen)

Joyce B. Tugel, Maine Mathematics and Science Alliance, Augusta

Connect Reading and the Environment (Gen)

Al Stenstrup, Project Learning Tree, American Forest Foundation, Washington, D.C.; Renee Strnad, North Carolina State University, Raleigh

ACS Session One: Understanding Specific Heat Capacity (Chem)

Jerry A. Bell, American Chemical Society, Washington, D.C.

NSTA High School Committee Share the Wealth (Gen)

Dina Ledford, Ashley Ridge High School, Summerville, S.C.; Carrie Jones, Middle Creek High School, Apex, N.C.; Dianne H. Earle, Boiling Springs High School, Boiling Springs, S.C.

PSESD Session: Physical Change and the Structure of the Water Molecule (Chem)

James H. Kessler, American Chemical Society, Washington, D.C.

AAPT Session: The Neutron's 15 Minutes of Fame (Phys)

Paul R. Huffman, North Carolina State University, Raleigh

How Do We Know They Know It? (Gen)

Susan German, NSTA Director, Middle Level Science Teaching, and Hallsville Middle School, Hallsville, Mo.

Engaging Fifth-Grade Students Through Haptically Enhanced Video Games (Phys)

Len Annetta and James Minogue, North Carolina State University, Raleigh

9:30–10:30 AM

Featured Presentation: Sticky, Shaky, Bumpy: Science at the Nanoscale for Elementary Teachers (PHYS)

Michael R. Falvo, Research Associate Professor, Dept. of Physics and Astronomy, The University of North Carolina at Chapel Hill

Special International Session: Science Education Reform in Japan (Gen)

Mitsuhiisa Hioki, Elementary and Secondary Education Bureau, Ministry of Education, Culture, Sports, Science, and Technology, Tokyo, Japan

The North Carolina Curriculum Units Project (Gen)

Ragan S. Spain, Beverly Vance, Benita B. Tipton, Edd Dunlap, and Janet Bailey, North Carolina Dept. of Public Instruction, Raleigh

Physics for Dummies (Phys)

Teresa H. Cowan, Robyn C. Schuster, and Melinda L. Christian, C.D. Owen Middle School, Swannanoa, N.C.

Do You Need a Better Introduction to the Periodic Table? (Chem)

Katherine Bobay Graser and Amy Mims, Mint Hill Middle School, Charlotte, N.C.

Turning Seniors On to Biology! (Bio)

Judith D. Jones, East Chapel Hill High School, Chapel Hill, N.C.

The Impact of an Inquiry-based Science Curriculum on Students' Performance on a High-Stakes Science Exam (Bio)

Alfred Porter, Benjamin E. Mays High School, Atlanta, Ga.

Harry Potter® Integrated (Gen)

Cindy Bullard, John R. Kernodle Middle School, Greensboro, N.C.; Tiffany Green, Oak Ridge Military Academy, Oak Ridge, N.C.

Making Physics Relevant for High School Students (Phys)

Cindy Y. Moss, Local Arrangement Coordinator, NSTA Charlotte Area Conference on Science Education, and Charlotte Mecklenburg Schools, Charlotte, N.C.; Geoff Möller, Richard Petty Driving Experience, Concord, N.C.

Climate Change: Using Inquiry to Investigate Impacts on the Natural World (Env)

Linda Schmalbeck, The North Carolina School of Science and Mathematics, Durham

What Do My Chemistry Students Know? (ASSESS) (Chem)

Myra J. Halpin, The North Carolina School of Science and Mathematics, Durham

Engaging K–8 Science Students with Hands-On Investigations and Inquiry Supported by Science Literacy Skills and Quality Resources (Gen)

Donna L. Knoell, Educational Consultant, Shawnee Mission, Kans.

Teaching Locally, Thinking Globally (Gen)

Samantha Dassler Barlow, James B. Hunt, Jr. Institute for Educational Leadership and Policy, Washington, D.C.

Assessment—You're Kidding Me! (Gen)

Rajeev Swami, Central State University, Wilberforce, Ohio

Investigating Science in Real and Virtual Worlds (Gen)

Frank E. Crawley, Rhea Miles, and Martha Fewell, East Carolina University, Greenville, N.C.

NASA's GLOBE Program: U.S. Regional GLOBE Networking Session (Env)

Teresa J. Kennedy, University Corporation for Atmospheric Research, Boulder, Colo.; Nandini McClurg, The GLOBE Program, Colorado State University, Fort Collins

Space Forensics: Death of a Star (Earth)

Sara E. Mitchell, SP Systems and NASA Goddard Space Flight Center, Greenbelt, Md.

Physical Science Can Be a Real Day in the Park! (PHYS) (Phys)

Rebecca Shackelford, Leiana Guerrero, and Nancy Dragotta-Muhl, Museum of Life and Science, Durham, N.C.

Using the 1780 Battle of Kings Mountain as a Science Lesson (Earth)

John R. Wagner, Clemson University, Clemson, S.C.

Hands-On Science Instruction (Gen)

Phyllis E. Weatherly-Rosner and Betty Dampier, SciWorks, Winston-Salem, N.C.

Phenomena and Representations for the Instruction of Science in Middle School (PRISMS): Digital Resources for Teaching Science (Gen)

Joyce B. Tugel, Maine Mathematics and Science Alliance, Augusta; Lori Agan, Expeditionary Learning Schools Outward Bound, Amherst, Mass.; Arlene Jurewicz Leighton, TeachLearnCollaborate.com, Lincolnville, Maine

NSTA High School Committee: Leading Beyond the Classroom (Gen)

Fred Myers, Glastonbury (Conn.) Public Schools; Robin Curtis, NSTA Director, District VIII, and Virginia Commonwealth University, Deltaville; Vincent Pereira, NEST+m, New York, N.Y.

ACS Session Two: Understanding the Energetics of Dissolving (Chem)

Jerry A. Bell, American Chemical Society, Washington, D.C.

Scale the Universe (Phys)

Christine A. Royce, NSTA Director, District IV, and Shippensburg University, Shippensburg, Pa.

The NSTA Learning Center: Free Resources and Professional Development—All in One Place (Gen)

Al Byers, Assistant Executive Director, e-Learning and Government Partnerships, NSTA, Arlington, Va.

PSESD Session: Chemical Change: Breaking and Making Bonds (Chem)

James H. Kessler, American Chemical Society, Washington, D.C.

Industrial Biotechnology: Florida's Newest Attraction! (BIOTECH) (Bio)

Tamara Mandell, Florida's Banner Center for Biotechnology, University of Florida, Alachua; June Camerlengo, Santa Fe High School, Alachua, Fla.; Carla Dee Reedy and Jill Stephens, North Marion High School, Citra, Fla.

AAPT Session: Teaching with Interactive Simulations (Phys)

Wolfgang Christian and Mario Belloni, Davidson College, Davidson, N.C.

11:00 AM–12 Noon

Featured Presentation: Biotechnology and the Genomic Era (BIOTECH) (Gen)

Carla L. Easter, Science Education Specialist, National Human Genome Research Institute, National Institutes of Health, Bethesda, Md.

Problem-based Learning Across the Curriculum (Gen)

Joel Gluck, Jackie Fitzgerald, and John Santangelo, NEL/CPS Career Academy, Cranston, R.I.

Designing Bridges to Create Elementary Science and Math Problem Solvers (Gen)

Linda S. Pickett, Winthrop University, Rock Hill, S.C.

Scale the Universe (Earth)

Rae A. McEntyre, Kentucky Dept. of Education, Frankfort

Energize Your Classroom (While Teaching Those Tough Energy Concepts) (PHYS) (Chem)

Amy Constant, The NEED Project, Raleigh, N.C.

Brain-based Instruction in Science: Creating Opportunities for Success (Gen)

Ragan S. Spain and Benita B. Tipton, North Carolina Dept. of Public Instruction, Raleigh

Technology Binds Mathematics and Science (Chem)

Greg Dodd, George Washington High School, Charleston, W.Va.

Formative Assessment in the Earth/ Environmental Science Classroom (ASSESS) (Env)

Kathleen Koch and Chris Triolo, Charlotte Mecklenburg Schools, Charlotte, N.C.; Diana Shell, South Mecklenburg High School, Charlotte, N.C.

Climate Change: Global Connections and Sustainable Solutions (Env)

Thomas Allison, Lake Weir Middle School, Summerfield, Fla.

An Apple a Day—Science That Students Can “Bite” Into! (Gen)

Keith C. Stanek, Tyro Middle School, Lexington, N.C.

Build Galileo's 1609 Telescope (Earth)

John McFarland, Johannes Kepler Project, Charleston, S.C.

Strategies for Teaching: Differentiation for Neurological Gender Differences in Learning (Gen)

Michelle J. Barthlow, Etowah High School, Woodstock, Ga.

Engineering Education in Today's Classroom (Gen)

Elaine Plybon, Southern Methodist University, Dallas, Tex.

An Overview of the Presidential Awards for Excellence in Math and Science Teaching (Gen)

Samuel R. Wheeler, William G. Enloe Magnet High School, Raleigh, N.C.; Mike Bowman, Madison High School, Marshall, N.C.

Enhancing Science Instruction and Literacy with Quality Nonfiction Trade Books, Related Resources, and Investigations (Gen)

Donna L. Knoell, Educational Consultant, Shawnee Mission, Kans.

Hands-on Exploration of Population, Consumption, and Our Changing Climate (Env)

Karen McKenzie, Covenant Day School, Matthews, N.C.

May the Force (and Motion) Be with You! (Phys)

Kathy Glasheen, Porter Ridge High School, Indian Trail, N.C.; Lori Peyton and Amanda Sant, Union County Public Schools, Monroe, N.C.

Birds of a Feather for Science Methods Instructors (Gen)

Helen M. Cook, Catherine E. Matthews, David Hildreth, and Heidi B. Carlone, The University of North Carolina at Greensboro

AP Course and Exam Review (Gen)

Tanya Sharpe, The College Board, Duluth, Ga.; John Eggebrecht, The College Board, New York, N.Y.

SGI: Maximizing Student Opportunities to Learn (Phys)

Catherine W. Horne, Wake County Public School System, Raleigh, N.C.; Michael Klentschy, San Diego State University, Imperial Valley Campus, Calexico, Calif.

ACS Session Three: Mixing and Entropy—A Model (Chem)

Jerry A. Bell, American Chemical Society, Washington, D.C.

NARST Session: The Communication in Science Inquiry Project (CISIP) (Bio)

Dale R. Baker, Elizabeth Lewis, Senay Yasar-Purzer, and Sibel Uysal, Arizona State University, Tempe

PSED Session: Index of Refraction (PHYS) (Phys)

Becky Thompson-Flagg, American Physical Society, College Park, Md.

Toshiba/NSTA ExploraVision Awards (Gen)

Brian P. Short, Assistant Manager, ExploraVision, NSTA, Arlington, Va.

NABT Session: Respirometers—Quick, Easy, Inexpensive, and Student Constructed (Bio)

L. George Sellers, Ware Shoals High School, Ware Shoals, S.C.

Middle Level Share-a-Thon (Gen)

Susan German, NSTA Director, Middle Level Science Teaching, and Hallsville Middle School, Hallsville, Mo.; Robbie L. Higdon, Hughes Academy of Science and Technology, Greenville, S.C.; Carrie A. Jones, Middle Creek High School, Apex, N.C.; Arlene S. Puryear, Aiken County Schools, Aiken, S.C.; Paula Costello, Tracy Elmore, Sandy Hall, Brittain Melton, Lisa Boron, and Kelly Bowers, Lugoff-Elgin Middle School, Lugoff, S.C.

AAPT Session: Using High-Speed Photography in Physics Teaching (Phys)

Loren M. Winters, The North Carolina School of Science and Mathematics, Durham

12:30–1:30 PM

The Cosmic Zoo (Earth)

Rae A. McEntyre, Kentucky Dept. of Education, Frankfort

Teaching Science Through Research (Chem)

Eugene L. de Silva and Beth Mattie, Lincoln Memorial University, Harrogate, Tenn.

A Closer Look at Adhesive Bandages (Chem)

Mary E. Harris, John Burroughs School, St. Louis, Mo.

Forensics: The New Integrated Science (Gen)

Jacklyn Bonneau, Massachusetts Academy of Math & Science at WPI, Worcester

Mastering the Properties of Matter Using Kitchen Chemicals (PHYS) (Chem)

Dennis W. Johnson, The Science House, North Carolina State University, Fayetteville

Activities, Materials, and Resources That Teach Science! (Phys)

Christine Wheeler, Janet H. Tyler, and Lisa R. Surles-Law, Thomas Jefferson National Accelerator Facility, Newport News, Va.

Communication and Collaboration in Science (Gen)

Ben Smith, Red Lion Area High School, Red Lion, Pa.

Girls in Science Clubs (Env)

Cindy Bullard, Kernodle Middle School, Greensboro, N.C.; Sonja McKay, Exploris Middle School, Raleigh, N.C.

Living Filters: Waste as Fuel (Env)

Lisa Steinberg, The Pennsylvania State University, University Park

Alternative Energy Sources: Inquiry-based Activities for Science Classrooms (BIOTECH) (Gen)

Darlene L. Montesanti, Peter A. Wish, Rachel A. McBroom, and Keenan E. Locklear, The University of North Carolina at Pembroke; Stefanie B. Burney, West Bladen High School, Bladenboro, N.C.; Verneatha Doctor, Fayetteville Technical Community College, Fayetteville, N.C.

Physical Science on the Farm (Phys)

Louise W. Lamm and Ellen B. Gould, North Carolina Farm Bureau, Raleigh

Enhancing Middle Grades Science Instruction: A Coaching Model (Gen)

Pradeep M. Dass, Appalachian State University, Boone, N.C.; John R. Goforth and Lori S. Wilbanks, Cleveland County Schools, Shelby, N.C.; Jill B. Francis, Rutherford County Schools, Forest City, N.C.; Luanne Parks O'Neill, McDowell County Schools, Marion, N.C.

ECU Share-a-Thon (Gen)

Rhea L. Miles, Martha Fewell, and Tammy Lee, East Carolina University, Greenville, N.C.; Tonya Little, Williamston High School/ECU Tech Math, Williamston, N.C.; Charlotte Maxwell, Creswell, N.C.

Lipids, Fats, and Oils: Modeling Molecular Structures with Relevance (Bio)

Barbara J. Speziale, Clemson University, Clemson, S.C.

Science Research Resources: Science Buddies (Gen)

Alisa B. Wickliff and Sarah F. Smith, The University of North Carolina at Charlotte

Hydroponics in the Middle School Classroom (Earth)

Alexander C. Micacchione and Lindsay Painter, Jean Childs Young Middle School, Atlanta, Ga.

Take A Child Outside Week: Reconnecting Children and Nature (Gen)

Elizabeth D. Baird, North Carolina Museum of Natural Sciences, Raleigh

Mentoring Students for Success in a Regional Science Fair (Gen)

Anne D. Deane, The Covenant School, Charlottesville, Va.

Fun Formative Assessments in a Short Time with Big Results (ASSESS) (Bio)

Stephanie R. Grady, Lakewood High School, Salemburg, N.C.; Carolyn H. Maidon, Campbell University, Buies Creek, N.C.

ACS Session Four: Osmosis and Entropy: An Application of Mixing (Chem)

Jerry A. Bell, American Chemical Society, Washington, D.C.

SCST Session: The Freshman Biology Laboratory Experience: Mitosis and Meiosis (Bio)

Arthur L. Buikema, Jr., Virginia Tech, Blacksburg

SCST Session: Developing a National Exam to Assess the General Chemistry Laboratory (Chem)

Deborah B. Exton, University of Oregon, Eugene; Jimmy H. Reeves, University of North Carolina, Wilmington

PSED Session: Electromagnetism (Phys)

Becky Thompson-Flagg, American Physical Society, College Park, Md.

AAPT Session: Astronomy Resources for Teachers (Phys)

Debbie W. Michael, North Lincoln High School, Lincolnton, N.C.

2:00–3:00 PM

Featured Presentation: Rethinking Assessment (ASSESS) (Gen)

Jane Griffin, Senior Research Education Analyst, Educational Studies Division, RTI International, Research Triangle Park, N.C.

Eureka! Inquiry...What Is It and How Do I Do It? (Chem)

Melissa L. Harris, Jack Britt High School, Fayetteville, N.C.

Use Scaffolded Inquiry to Build Science Literacy in Physical Science (Phys)

Karen L. Ostlund, Retired Educator, Austin, Tex.

Let's Get Physical! Weaving Technology, Language Arts, and Mathematics into Your Physical Science Units (ASSESS) (Phys)

Betty A. Martin, O.P. Earle Elementary School, Landrum, S.C.; Lana B. O'Shields, Campobello-Gramling Elementary School, Campobello, S.C.; Jodi Wright, New Prospect Elementary School, Inman, S.C.

Fueling the Future: Energy Interconnections and Sustainable Choices (Env)

Thomas Allison, Lake Weir Middle School, Summerfield, Fla.

CSSS Session: The Impact of Inquiry on Science Learning in the States (Gen)

Jan McLaughlin, CSSS President, and New Hampshire Dept. of Education, Concord

Rare-Breed Farm Animals Teach Concepts Concretely (Bio)

C.C. King, American Livestock Breeds Conservancy, Moncure, N.C.

Inquiry Matters: Incorporating Inquiry into Elementary and Middle School Physical Science (Chem)

Patricia M. Galvan and Adam Boyd, American Chemical Society, Washington, D.C.

Problem Solving and Decision Making in Science (Gen)

Ben Smith, Red Lion Area High School, Red Lion, Pa.

I Play, Therefore I Am: Using Toys to Understand Physical Science (PHYS) (Phys)

Dennis Kubasko and Barbara Glover, University of North Carolina, Wilmington

Magical Illusions Show for Science Teachers (Gen)

Alan J. McCormack, CESI President, and San Diego State University, San Diego, Calif.

Bring Literacy and Science Together: "B.L.A.S.T."© for Success at School and Home (Gen)

Margaret S. Dee and Renee G. O'Leary, Caravel Academy, Bear, Del.

Toyota TAPESTRY Grants for Science Teachers = \$\$\$ for Your School! (Gen)

Eric V. Crossley, Assistant Director, Corporate Partnerships/Toyota TAPESTRY, NSTA, Arlington, Va.

Digital Stellar Connections (Earth)

Christi J. Whitworth and Michael Castelaz, Pisgah Astronomical Research Institute, Rosman, N.C.

Kenan Fellows Biotechnology Curriculum (BIOTECH) (Bio)

Thomas E. Knott, Susan K. Parry, and Kenan Fellows, North Carolina State University, Raleigh

Using Student Research in Your Classroom (Gen)

Judy B. Day, North Carolina State University, Raleigh

Integrating Math into the Science Curriculum (Gen)

Ella M. Boyd and Jill Smith, Carmel Middle School, Charlotte, N.C.

The Scary Side of Physical Science (Chem)

Ann S. McClung, Karen J. Singer, and Mamta P. Singh, South Central High School, Winterville, N.C.

ACS Session Five: Understanding How Energy, Entropy, and Temperature Relate (Chem)

Jerry A. Bell, American Chemical Society, Washington, D.C.

SCST Session: Teaching for Inclusion and Diversity (Bio)

Jill C. Sible, Virginia Tech, Blacksburg

SCST Session: The Development of E-Nature Guides on the Flora and Fauna of the State of South Carolina (Env)

Edward Pivorun, Clemson University, Clemson, S.C.

PSED Session: Dynamic Earth: Earthquakes, Volcanoes, and Landslides (Earth)

Ann Benbow and Colin Mably, American Geological Institute, Alexandria, Va.

AAPT Session: Physics Make and Take (Phys)

Shawn A. Weatherford, North Carolina State University, Raleigh

Multicultural/Equity Division Presents: Urban Science Education—The Students, the Strategies, the Setting (Gen)

Vanessa Westbrook, NSTA Director, Multicultural/Equity in Science Education, and Charles A. Dana Center, University of Texas, Austin

2:00–4:00 PM

Planning Safe, Flexible, and Sustainable Science Suites for Inquiry-based Learning (Gen)

LaMoine L. Motz, 1988–1989 NSTA President, and Oakland Schools, Waterford, Mich.; James T. Biehle, Inside/Out Architecture, Inc., Kirkwood, Mo.; Juliana Texley, Palm Beach Community College, Boca Raton, Fla.

3:30–4:30 PM

Physics and “Ph”airy Tales (Phys)

Jennifer B. Hunter and Tenita R. Black, Mountain View Elementary School, Taylors, S.C.

A Renewed Emphasis on Physical Science—It’s Elementary (Phys)

Carrie A. Jones, Middle Creek High School, Apex, N.C.

Changing Students’ Misconceptions in Physical Science (Chem)

Donna M. Wolfinger, Michael R. Gilchrist, and Randy D. Russell, Auburn University, Montgomery, Ala.

So THAT’s How We Know! Using the Electromagnetic Spectrum to Map the Universe (Earth)

Linda L. Smith, Paulsboro (N.J.) Public Schools

National Earth Science Teachers Association Share-a-Thon (Earth)

Parker Pennington IV, Past President, NESTA, Ann Arbor, Mich.; Michelle Harris, Wakefield High School, Arlington, Va.; Tom Ervin, Retired Educator, LeClaire, Iowa; Teresa Kennedy, University Corporation for Atmospheric Research, Boulder, Colo.; Susan W. Moore, NASA Langley Research Center/Science Systems and Applications, Inc., Hampton, Va.

Science IS...Inquiry Safely in Middle/Secondary Science (Gen)

Linda M. Stroud and Clara A. Stallings, Science & Safety Consulting Services, Raleigh, N.C.; Todd J. Korbusieski, John A. Holmes High School, Edenton, N.C.

Physics for Kids: 20 Simple and Powerful Activities (Phys)

Angela S. Galindo, Gray Elementary School, Houston, Tex.

Lab Inquiry: It’s as Easy as ABC (Activity Before Concept) (Gen)

Arthur Eisenkraft, 2000–2001 NSTA President, and University of Massachusetts, Boston

SciLinks: Using the Online Assignment Tool (Gen)

Virginia L. Chokouanga, Customer Service and Database Administrator, SciLinks, NSTA, Arlington, Va.; Tyson A. Brown, Director, SciLinks, NSTA, Arlington, Va.

Durable, Doable Demonstrations (PHYS) (Gen)

Melinda A. Wallrichs and Blenda Singletary, Catawba Science Center, Hickory, N.C.

Connecting Math and Science Standards (Gen)

David K. Pugalee, Sarah F. Smith, and Alisa B. Wickliff, The University of North Carolina at Charlotte

Connecting Research to Practice: Concept Maps as Learning and Assessment Tools (ASSESS) (Gen)

Robert A. Corbin, Discovery Place, Charlotte, N.C.; Angelique Seifert, Charlotte-Mecklenburg Schools, Huntersville, N.C.

No Way! Not My DNA! Gene Manipulation: A New Approach to Conceptual Learning (Bio)

Tamica A. Stubbs, E.E. Waddell High School, Charlotte, N.C.; Jason Gvazdauskas, Hopewell High School, Huntersville, N.C.

SOS! Science Olympiad and Standards (Gen)

Jason L. Painter, North Carolina State University, Raleigh

Co-constructing an Understanding of Students’ Learning of Science: Virtual Learning in Real Classrooms (Gen)

Frank E. Crawley, Martha Fewell, and ECU Graduate Students, East Carolina University, Greenville, N.C.

Professional Development Through a Partnership Focus Group (Gen)

Pradeep M. Dass and Jon M. Saken, Appalachian State University, Boone, N.C.; Freda B. Parker, Hibriten High School, Lenoir, N.C.; Rachel L. Crosby, East Burke High School, Connelly Springs, N.C.; Kay H. Campany, North Carolina Dept. of Public Instruction, Raleigh; Marian J. Marley, Wilkes Central High School, Wilkesboro, N.C.; Kelly Lopp, Ashe County High School, West Jefferson, N.C.

Marine Biotechnology Adventure: A New Kind of MBA (BIOTECH) (Bio)

Sue M. Kezios, University of North Carolina, Wilmington

Global Connections: Forests of the World (Env)

Al Stenstrup, Project Learning Tree, American Forest Foundation, Washington, D.C.; Renee Strnad, North Carolina State University, Raleigh

Let Children’s Literature Lead You into Inquiry (Gen)

Dale Campbell, Phyllis Taylor, Jennifer Strain, and Gena Riley, Jacksonville State University, Jacksonville, Ala.

ACS Session Six: Entropy Analysis of Colligative Properties and Chemical Equilibrium (Chem)

Jerry A. Bell, American Chemical Society, Washington, D.C.

PSED Session: Fuels from the Earth (Earth)

Ann Benbow and Colin Mably, American Geological Institute, Alexandria, Va.

AAPT Session: Physics Demonstrations for the Eager Teacher (Phys)

William W. McNairy, Duke University, Durham, N.C.

3:30–5:30 PM

Special Session: NSTA’s Exemplary Science Programs (ESP)...Realizing the Visions of the National Standards (Gen)

Coordinator: Timothy Cooney, University of Northern Iowa, Cedar Falls

4:00–5:00 PM

NCSTA Featured Presentation: Live Bat Encounter (Gen)

Rob Mies, Director, Organization for Bat Conservation, Cranbrook Institute of Science, Bloomfield Hills, Mich.

5:00–5:30 PM

The Virtual Biotech Entrepreneur (BIOTECH) (Bio)

Shari Laprise, Babson College, Babson Park, Mass.

5:00–6:00 PM

Dense About Density? (Chem)

Jennifer Lee, Washington Irving Elementary School, Chicago, Ill.

Exploring Electricity (Phys)

Amy Constant, The NEED Project, Raleigh, N.C.

Moving Along in Physical Science (Phys)

Betty Cordel, AIMS Education Foundation, Fresno, Calif.

National Earth Science Teachers Association Rock and Mineral Raffle (Earth)

Roberta M. Johnson, University Corporation for Atmospheric Research, Boulder, Colo.; Tom Ervin, Le Claire, Iowa; Sue Ervin, Le Claire, Iowa; Parker Pennington IV, Past President, NESTA, Ann Arbor, Mich.

Astronomy—50 Great Resources in 50 Minutes...All Free! (Earth)

John McFarland, Johannes Kepler Project, Charleston, S.C.

The Yale National Initiative: A Source for Research-based Lesson Plans (Gen)

Connie S. Wood and Debra Semmler, East Mecklenburg High School, Charlotte, N.C.; Ella Boyd, Carmel Middle School, Charlotte, N.C.

Presenting a High School Biotechnology Course (BIOTECH) (Bio)

Bruce W. Boller, Bertie High School, Windsor, N.C.

Beyond Volcanoes: Science Fairs in Elementary Schools (Gen)

Beth Snoko Harris, Science Is Fun!, Hendersonville, N.C.

Herpetological Conservation Education Summer Field Experiences (Env)

Catherine E. Matthews, Angela Webb, Julie Haun-Frank, Melony Allen, and Leslie Pullen, The University of North Carolina at Greensboro; Terry Tomasek, Elon University, Elon, N.C.

The Great Roller Coaster—Force and Motion Inquiry Learning Project (Phys)

Orvil L. White, State University of New York at Cortland

Exploring the Skies with NASA's X-ray Eyes (Earth)

James Lochner, Universities Space Research Association and NASA Goddard Space Flight Center, Greenbelt, Md.; Sara E. Mitchell, SP Systems, Inc., and NASA Goddard Space Flight Center, Greenbelt, Md.

Successful Implementation of Guided Inquiry in the High School Classroom (Gen)

Christine R. Lotter, University of South Carolina, Columbia

Teaching Local, Thinking Global (Gen)

Anna Smith, East Garner Magnet Middle School, Garner, N.C.

Cosmic Rays, Electronics, and Programming—Creating a Rich Experience at Delta High (Phys)

Julie Callahan, University of Utah, Salt Lake City

Elementary Science Activities and Inspiration® Software (Gen)

Cheryl T. Horton, The University of North Carolina at Chapel Hill; Angelia Reid Griffin, University of North Carolina, Wilmington

The Conceptual Change Model (ASSESS) (Gen)

Rachel Tustin and Martha Boswell, Kelly Mill Middle School, Blythewood, S.C.

Revising the NSTA Science Standards (Gen)

David A. Wiley, NSTA Director, Preservice Teacher Preparation, and The University of Scranton, Pa.

Saturday, November 1

8:00–9:00 AM

Drop the Lecture and Let the Students Pick Up the Learning in AP Science (Gen)

Kristen R. Dotti, Christ School, Arden, N.C.

South African and North Carolina Students Connect as Scientists (ASSESS) (Gen)

Sharon J. Mooney-Hughes, Topsail Middle School, Hampstead, N.C.; Julie Pollock, White Oak High School, Jacksonville, N.C.; Catherine R. Nesbit, University of North Carolina, Wilmington

Saving Energy in the Classroom (Env)

Amy Constant, The NEED Project, Raleigh, N.C.

S'COOL Is Cool! (Earth)

Susan W. Moore, NASA Langley Research Center/Science Systems and Applications, Inc., Hampton, Va.

Student Teacher Preparation Needs in Science Safety (Gen)

Linda M. Stroud and Clara A. Stallings, Science & Safety Consulting Services, Raleigh, N.C.; Todd J. Korbuseski, John A. Holmes High School, Edenton, N.C.

JetStream: An Online School for Weather (Earth)

Dennis Cain, National Weather Service, Fort Worth, Tex.

The Stone Speaks! (Gen)

Shelley R. Rogers, The University of North Carolina at Chapel Hill

Bringing Music into the Elementary Science Classroom (Phys)

Eric N. Wiebe, Sarah Carrier, and Kenan Fellows, North Carolina State University, Raleigh; Patricia Gray and David Teachout, The University of North Carolina at Greensboro

Physics from the Junk Drawer (Phys)

Scott Ragan, North Carolina State University, Raleigh

No Science Left Behind (Env)

Marla W. Jones, Elizabethtown College, Elizabethtown, Pa.

Stimulating Student Interest in Biotechnology Through Collaboration with a Science Museum (Bio)

Lawrence T. Hollis and Jeanne Smith, School of Biotechnology, Health, and Public Administration, Charlotte, N.C.; Jessica Murphy, Discovery Place, Charlotte, N.C.

Photonics Leaders: Optical Illusions and Evaluation (Phys)

Pamela O. Gilchrist and Joyce Hilliard-Clark, North Carolina State University, Raleigh

Using Intrigue and Discrepant Events to Grab Your Students (Phys)

Patricia A. Hewitt, The University of Tennessee, Martin

Zap! Understanding Electricity (PHYS) (Chem)

Rebecca S. Worlds, Melanie Biggers, Darlene Petranick, and Gayla Vardell, Lebanon Road Elementary School, Charlotte, N.C.

From NASCAR to Nutrition—The Story of Biotechnology in North Carolina (BIOTECH) (Bio)

Kathleen E. Kennedy and Marjorie Benbow, North Carolina Biotechnology Center, Charlotte

9:30–10:30 AM

Einstein + Expository Reading = Excitement (Phys)

Juliana Texley, Palm Beach Community College, Boca Raton, Fla.

Aligning Content with Standards and Assessment (Gen)

Michael P. Mahan, Armstrong Atlantic State University, Savannah, Ga.

Black Hole Basics (Earth)

Rae A. McEntyre, Kentucky Dept. of Education, Frankfort

Forces and Motion: It's Elementary and Teachable (Phys)

Michael Elder, Onslow County Schools, Jacksonville, N.C.; Krystal Rochelle, Southwest Elementary School, Jacksonville, N.C.; Stacy Joyer, Morton Elementary School, Jacksonville, N.C.

Beyond Penguins and Polar Bears—Physical Science from the Poles (Phys)

Jessica Fries-Gaither, The Ohio State University, Columbus

Embedded Formative Assessment (Chem)

Greg Dodd, George Washington High School, Charleston, W.Va.

Enhancing Instruction and Assessment with Questioning (Gen)

Lucille E. Eaton, North Carolina Dept. of Public Instruction, Raleigh

What's So "Write" About Science? Using Science Notebooks (Gen)

Lipi B. Pratt, Kim T. Price, and Terry Whisenant, Orchard Park Elementary School, Fort Mill, S.C.

Forensics in the Botany Classroom: An Interactive Summative Assessment (ASSESS) (Bio)

Amy E. Boyd, Warren Wilson College, Asheville, N.C.

Empowering Students Through Choices (ASSESS) (Gen)

Bill Pearson, Independence High School, Charlotte, N.C.; Nick LaFave, Clover High School, Clover, S.C.

Reflecting on the Phases of the Moon (Phys)

Ken C. Brandt, Robeson Planetarium and Science Center, Lumberton, N.C.

Physical Science Experiments for Elementary and Middle School Students (PHYS) (Chem)

Patricia M. Galvan and Adam Boyd, American Chemical Society, Washington, D.C.

Stop Treating Soil Like Dirt! Exploring the Amazing Properties of Soil (Env)

Greg Pillar and Reed M. Perkins, Queens University of Charlotte, N.C.

Research Methods (Gen)

Robert D. Halpern, Millennium Charter Academy, Mount Airy, N.C.

Science with Character (Bio)

Cynthia Hayes and Jacquelyn C. Leib, Bonner Springs High School, Bonner Springs, Kans.

10:00–10:30 AM

Your Community and Its Environmental Impact (Earth)

Hazel Jensen, John Burroughs School, St. Louis, Mo.

Biopolymers: The Future of Synthetic Fibers and Plastics (BIOTECH) (Env)

David Hinks, North Carolina State University, Raleigh

11:00–11:30 AM

Wildlife 911: Motivating the "Me Generation" to Become More Ecologically Intelligent (Gen)

Jeannie A. Lord, Lakeland College, Sheboygan, Wis.

11:00 AM–12 Noon

Don't Understand Meiosis? Make a Movie! (Bio)

Christopher A. Bogiages, Scholars Academy, Conway, S.C.

Our Favorite Things: Science, Math, Rainbows, and Chocolate (Gen)

Linda S. Pickett and Deborah V. Mink, Winthrop University, Rock Hill, S.C.

- Flying High with Science** (Phys)
Freda B. Parker, Hibriten High School, Lenoir, N.C.
- Bioethics in the Grades 6–12 Classroom (BIOTECH)** (Bio)
Shawn L. Reintjes, The Science House, North Carolina State University, Jacksonville
- It’s Not Magic, It’s Physics!** (Phys)
Elizabeth Kennedy, St. Rose School, Roseville, Calif.
- Moving Things in the Elementary Physical Science Class** (Chem)
Philip Malatin, Burke County Public Schools, Morganton, N.C.
- (Dry) Ice Capades** (Phys)
Nicholas Kuefler, Vanderlyn Elementary School, Dunwoody, Ga.
- Science Shoeboxes and Mystery Shoeboxes** (Gen)
Leslie A. Suters and Sarah A. Keller, Tennessee Tech University, Knoxville
- Using What You’ve Got! How to Ask Excellent Questions and Get Even Better Answers from All Students** (Gen)
Tricia Easterling, Radford University, Radford, Va.
- Online Resources: A Science Teacher’s Top 10 List** (Gen)
Mary F. Kmetz, Northeast Middle School, McCleasville, N.C.
- Navigating the Waters of Science Inquiry: North Carolina Teachers Join to Support Student Environmental Research (ASSESS)** (Env)
Colleen M. Karl, North Carolina State University, Raleigh; Mary Arnaudin, North Carolina State University, Brevard
- Using Alternative Assessments in Science to Enhance Student Achievement** (Gen)
Susan L. Foxx and Angelique Seifert, North Learning Community, Huntersville, N.C.
- Twenty-eight Discovery Boxes/Twenty-eight “Teach Tomorrow” Ideas** (Gen)
Helen M. Cook, The University of North Carolina at Greensboro
- Get a Half Life: Nuclear Science Explored** (Gen)
Lisa M. Marshall, North Carolina State University, Raleigh
- Statewide Institutes in Teaching Excellence (SITE) Professional Development** (Gen)
David C. Royster, The University of North Carolina at Charlotte
- Exploring Environmental Issues: Places We Live** (Env)
Al Stenstrup, Project Learning Tree, American Forest Foundation, Washington, D.C.; Renee Strnad, North Carolina State University, Raleigh
- It’s Electric** (Phys)
Judith R. McDonald, Belmont Abbey College, Belmont, N.C.