

Thursday, March 24, 2011  
The Phoenix, Greenville's Inn

National Science Foundation  
Southeastern Regional Noyce  
Conference

5:00-6:30 p.m.  
Registration\*  
Phoenix Inn Lobby

6:30-8:30 p.m.  
Meet and Greet  
Cash Bar and Heavy Hors D'Oeuvres  
Phoenix Inn Restaurant

\*Be sure to check in with Melissa Coy, Conference Coordinator, at registration to make sure paperwork is complete for reimbursement of expenses and substitutes.

\*\*Also sign up for SimHub Tours (see program, Sessions I and II) at the registration table.

Friday, March 25  
The University Center of Greenville  
Coffee available at Exceptional Catering in Mall

Late Registration  
Auditorium Lobby  
8:30-9:00 a.m.

*9:00 a.m.*  
*Welcome and General Information*  
*University Center Auditorium*

*9:30-10:20 Session I*  
*10:30-11:20 Session II*

*11:30-1:00 Lunch*  
*Pick up Lunch in Auditorium Lobby*  
*Catered by Exceptional Catering*

*Main Lunch Speaker/Auditorium*  
*Herb Johnson, Jr. Michelin North America*

*PI/Co-PI Luncheon/Clemson Suite 714*  
*Bert E. Holmes, NSF*

*1:00-1:50 Session III*  
*2:00-2:50 Session IV*  
*3:00-3:50 Session V*

**All breakout session rooms are upstairs and to the rear,  
to the left in the magenta area, except 202, to the right.**

**Don't forget to visit The Reading Source in the UCG Auditorium  
Lobby for math and science trade books at a discount!**

## Breakout Session I

9:30-10:20 a.m.

### Room 202

#### **Partnering with Local Industries in STEMs: Simply D'Vine**

**Dr. Pam Roberts, North Carolina State University**

Simply D'Vine is a partnership between a classroom teacher and a local industry. The industry is D'Vine Foods/LuMil Vineyard. It is through a Noyce grant with the Kenan Fellows program. High school curriculum was developed to provide students with an opportunity to experience and understand how chemistry is important in the food industry. You could provide specific examples from your lessons to emphasize the connection between the externship experience and your classroom lesson. Discussion will be on how to take a learning experience and develop lesson plans that emphasize STEM topics. Door prize of a basket filled with D'Vine food products will be given away. (Sorry I can't give away the wine!)

### Room 513

#### **Call Me MISTER: Minorities in the Math and Science Classroom**

**Mr. Winston Holton, Clemson University, Call Me MISTER**

This presentation highlights the classroom experience of Call Me MISTER STEMs graduates. The session makes observations and suggestions about the advantages of positive minority role models in the math and science classroom and discusses the success of the nationally recognized Call Me MISTER program.

**Room 503**

## **Bars & Number Lines to Establish the Arithmetic to Algebra Connection: Involving Noyce Scholars in Mentoring**

**Drs. Joy Darley, Michelle Cawthorn, Marlynn Griffin, Bryan Koehler  
Georgia Southern University**

At Georgia Southern University, Noyce scholars are not only being mentored, but they are also serving as mentors to pre-service elementary teachers. One topic that proves to be problematic for many mathematics students at many levels is the conceptual understanding of fractions and rational expressions. Since our Noyce scholars with mathematics degrees will be teaching algebra, it is important that they are fluent with the arithmetic to algebra connection. In addition, it is important for highly qualified mathematics majors to share their expertise with other pre-service teachers in a mentoring capacity. Participants in this session will learn how to engage their students in a performance assessment in which students are not only required to connect concrete models with standard fraction algorithms, but are also required to explain these connections.

**Room 511**

## **Using a Science Writing Heuristic in Chemistry**

**Nancy Caukin, Eagleville High School**

This presentation describes a mixed-methods study designed to determine if employing the writing-to-learn strategy known as a "Science Writing Heuristic (SWH)" would positively affect students' science achievement, self-efficacy in science, and scientific epistemological view. The publications *Science for All American, Blueprints for Reform: Project 2061* (AAAS, 1990; 1998) and *National Science Education Standards* (NRC 1996) strongly encourage science education that is student-centered, inquiry-based and active rather than passive; one that increases students' science literacy and moves them towards a constructivist view of science. The capacity to learn, reason, problem solve, think critically and construct new knowledge can potentially be experienced through writing (Irmscher, 1979; Klein, 1999; Applebee, 1984). SWH is a tool for designing science experiences that move students away from "cookbook" labs and allows them to design experiences based on their own ideas and questions. This non-traditional classroom strategy focuses on claims that students make based on evidence, compares those claims with their peers and compares those claims with the established science community. Students engage in reflection, meaning making based on their experiences, and demonstrate those understandings in multiple ways (Hand, 2004; Keys et al, 1999, Poock, nd).

**Room 514**

## **Merging Biology and Ethics: Lessons and Tools from the EMRGE Project**

**Amy Hawkins, Anderson District 5  
Drs. Kelly Smith and Barbara Speziale, Clemson University  
Linda Gallicchio, Rutland Institute for Ethics**

In developing the Ethics in Medical Research and Genetic Engineering (EMRGE) Project, science educators collaborated with multiple groups, including students, professors, and outreach personnel from a local university to help biology students understand the relationship between science and ethics using real world scenarios and applications that support the National Science Education Standards. Join us in experiencing key components as well as a discussion of this community-based research project sponsored by Clemson University's SC Life Program, which is funded through a grant from the Howard Hughes Medical Institute Precollege and Undergraduate Science Education Program.

**Room 409**

## **Benefits of Collaboration Between Education and STEM Faculty**

**Drs. Elaine Wiegert and Kelly Waters, USC-Upstate**

In this session, a collaborative teaching experience will be discussed. The presenters will discuss the planning process as well as the implementation of a graduate-level geometry class for middle level teachers. Both the successes and challenges will be addressed. Plans for future collaborations will be discussed. Funds for this collaboration were provided by an Improving Teacher Quality Grant funded by the SC Commission on Higher Education.

**Meet at Registration Desk**

## **SimHub Tour (This tour is repeated in Session II)**

**Helen Landmesser, SimHub Manager**

Conference participants may sign up for a SimHub tour and at that tour sign up for afternoon times to use one of the SimHub simulators (as time and interest allows). The University Center of Greenville's SimHub is a place where faculty and students can investigate the teaching, research, and outreach potential of emerging social and immersive technology with 21<sup>st</sup> century tools such as virtual worlds, simulations, serious games, and augmented reality. Experience a Teaching Simulator, explore a virtual world, or think about how to engage your students with games.

## Break Out Session II

10:30 a.m.-11:20 p.m.

### Room 202

#### **Drawing to Learn in the Science Classroom**

**Brian Marcum, Will Green, Denise Liddle, Sandhills Middle School  
Kelly Holmes, W.A. Perry Middle School; Newberry College ITEC Grant**

Educators will see how "drawing to learn" in the science classroom helps students make connections between science concepts and real life. This session will model active learning strategies.

### Room 503

#### **Interviewing Skills: Getting Your First Job (This session is repeated in Session VIII)**

**Dr. David Ledbetter and Ms. Margaret Spivey  
Greenville County Schools**

This session provides practical information on interviewing skills as you prepare to look for your first job. In this tough economic climate, knowing what interviewers are looking for is a distinct advantage. Experienced human resources employees from South Carolina's largest school district share their insights.

### Room 511

#### **Examining Issues of Equity in the Mathematics Classroom**

**Dr. Delayne Johnson, Jamario Twitty, Clemson University**

The National Council of Teachers of Mathematics identifies *Equity* as one of six principles of high-quality mathematics education. In this session, we will examine the meaning(s) of equity for school mathematics and discuss what an equitable mathematics classroom might look like. Both theoretical and practical implications of several conceptions of equity will be addressed.

**Room 513**

## **Online Resources for Teaching Physics**

**Dr. Taha Mzoughi, Kennesaw State University**

A large number of physics resources have become available over the last few years and have been catalogued in several digital libraries. In this session, we will start by exploring a couple of digital libraries: The physics front (thephysicsfront.org), the digital library for pre-college physics and the physics source (physicssource.org), the digital library for introductory physics courses. Among highlighted resources are resources for first time teaching and a variety of simulations and videos for teaching physics. This session will focus on how to effectively use these resources in the physics classroom. As part of the sessions, participants will be shown how to use the resources in the digital libraries for their teaching. Participants are encouraged to bring their laptop to the session.

**Room 514**

## **Mixing Math and Literature in the Middle School: *A Lost in Lexicon Case Study***

**Dr. Penny Noyce, The Noyce Foundation**

By middle school, mathematics and literature are usually taught by separate teachers using such different approaches that students begin to see the two subjects as entirely and completely foreign to one another. In this talk, Penny Noyce will discuss ways of integrating and enriching literature and mathematics, building on the experiences of two 6th grade teachers who co-taught a 5-week integrated unit on Noyce's fantasy *Lost in Lexicon: An Adventure in Words and Numbers*. She will also provide an annotated list of other books for the middle school level that allow for such integration.

**Meet at Registration Desk**

## **SimHub Tour**

**Helen Landmesser, SimHub Manager**

Conference participants may sign up for a SimHub tour and at that tour sign up for afternoon times to use one of the SimHub simulators (as time and interest allows). The University Center of Greenville's SimHub is a place where faculty and students can investigate the teaching, research, and outreach potential of emerging social and immersive technology with 21<sup>st</sup> century tools such as virtual worlds, simulations, serious games, and augmented reality. Experience a Teaching Simulator, explore a virtual world, or think about how to engage your students with games.

## LUNCH

11:30-1:00

### Pick up your lunch in the University Center Lobby

Participants should eat in the Auditorium or  
Proceed to Clemson Suite room 714  
You will need your name tag to pick up food

### Breakout Session III Poster Session

1:00-1:50 p.m.

Session III will be held in the lobby of the University Center, to the right of the main entrance. Posters will be displayed on Friday and attended from 1-1:50 for discussion and questions.

#### **POSTER 1**

**2010 Noyce Internship: Experiencing Diversity**  
**Bill Glace, Clint Harbuck, Griffin Gunther, Newberry College**

#### **POSTER 2**

**A Student Learns Much More Than She Expected**  
**Trisha Wilson, Newberry College**

#### **POSTER 3**

**Camp Bienvenidos Amigos—Diversity in Action**  
**Jennifer Lucas, Newberry College**

#### **POSTER 4**

**Combinatorial Chemistry Experiment**  
**Keyerria Howard, Newberry College**



**POSTER 5**

**Concerns and Perceptions of Robert Noyce Scholars  
Karen Rose, Florida State University**

**POSTER 6**

**Correlating Learning Styles to Differentiated Instruction for Algebra 1 Students  
Sharon Truax, Smyrna High School**

**POSTER 7**

**Experiences from the RE-Mast Summer Internship  
Jordan White, Newberry College**

**POSTER 8**

**The Impact of TI-Nspire Technology on Student Learning and Motivation in an  
Algebra 2 Classroom  
Samantha Stevens, Grundy County High School**

**POSTER 9**

**Important Concepts Acquired through a Summer Internship  
Faith Carnes, Newberry College**

**POSTER 10**

**Improving ACT College Readiness Mathematics Scores: An L to J Approach  
Michelle Fontanez, DeKalb County High School**

**POSTER 11**

**Increasing Mathematical Achievement in 8<sup>th</sup> Grade Mathematics:  
“Math Navigator” vs. “Move It Math”  
Olivia Mitchell, Clark Atlanta University**

**POSTER 12**

**Investigating the Effect of Using Study Island to Increase  
Student Achievement in Math  
Nicole Brown, Clark Atlanta University**

**POSTER 13**

**Involved in Mathematics  
Adrienne Long, Newberry College**

**POSTER 14**

**Recruiting Scholars  
Katherine Aplington, Florida State University**

**POSTER 15**

**Relating the Real World to Middle School Math  
Talia Swiney, North Carolina State University**

**POSTER 16**

**Strategies for Biology Teachers  
Karen Thomas, Duke University**

**POSTER 17**  
**Summer of Innovation**  
**Tiffany Hunter, Hampton University**

**POSTER 18**  
**Virtual Manipulatives and Student Achievement**  
**Antrell Barnes, Clark Atlanta University**

## **Breakout Session IV**

2:00-2:50 p.m.

**Room 202**

### **A Pedagogical Tool for Biology Teachers**

**Dr. Cassie Quigley, Norm Burdette, Kelsey Rice, Clemson University**

In this Experiential Session, science teachers will learn how to use a pedagogical tool called Photovoice to elicit student understanding, engage students in scientific discourse, and encourage participation in making changes in their communities. This technique also offers participants new and reflective ways to perceive their own world and the science around them. Photovoice encourages students to take pictures of their surrounding and then write short narratives about the pictures. The pictures and narratives are grouped by themes to understand what is most important about the students' community. Then, these pictures are used to spur interest in solving problems in their community with science. During this session we will do the following things:

1. Describe how Photovoice was adapted to become a pedagogical tool to encourage pre-service science teachers to examine their place.
2. Walk teachers through a Photovoice unit based on the Reedy River.
3. Show participants a variety of ways that Photovoice can be used in their classrooms.
4. Provide many examples of Photovoice pictures and narratives.

**Room 503**

### **Dealing with Bullying in the Classroom**

**Dr. Ron Knorr, Mercer University**

Bullying has gone far beyond any "socially acceptable rite-of-passage"—victims endure to sad tales of depression, suicide, and murder. Teachers have a professional and moral obligation to help remove this form of violence from the classrooms. In this session, the presenter will review the definition of bullying, review various research studies and proposed reduction program, and discuss implications for the school and classroom.

**Room 511**

**“I will survive!”  
A Strategy Building Session for Pre-Service and Beginning  
Teachers—A Round Table Discussion**

**Tara Blalock, Duke University**

Attention: Pre-service Teachers and 1<sup>st</sup>, 2<sup>nd</sup>- and 3<sup>rd</sup>-year teachers! Are you brimming with excitement and questions? Are you bursting with memorable stories and advice? This session is for you! Join your colleagues for a time of sharing, networking and strategy-building. Newest teachers will have the opportunity to impart their positive experiences and time-saving strategies, and pre-service educators will have the floor for questions about anything from assessment to zoo field trips throughout this 50-minute session. Afterward, visit a dynamic, web-based networking site to continue to build one another up – our best resource is each other!

**Room 513**

**Do You See What I Say? Strategies for Mathematics Teachers  
(This session repeated in Session V)**

**Renee Stubbs, Newberry College**

Did you know that the average student studying with the aid of a graphic organizer learns as much as the 90th percentile student studying the same content without the assistance of a graphic organizer? Graphic organizers combine the printed word and the spoken word making learning active, which makes it meaningful, and hence leads to the ultimate goal of effective learning for students. During the presentation Participants will create organizers and leave the presentation with many examples of organizers to use in the classroom.

**Room 409**

**History of and New Direction of the Robert Noyce Teacher  
Scholarship Program**

**Dr. Bert Holmes, NSF**

A historical overview of the Robert Noyce program will review annual allocations from Congress, number of submitted proposals, success rates and etc. In addition, the current Noyce Program will be discussed and new elements in the 2011 Solicitation will be reviewed and discussed.

## Breakout Session V

3:00-3:50 p.m.

### Room 202

#### **Physics Hands-On Activities on a Low Budget**

**Dr. Taha Mzoughi, Carlin Bright, Kennesaw State University**

Hands-on activities have the potential to enliven the classroom, promote student engagement, and increase student interest in science and engineering. In this make and take Experiential Session, we will build a homopolar motor and an electrical generator. We will also demonstrate how we can turn the homopolar motor into a generator and we will provide information on other possible hands-on activities. Furthermore, we will present an example guided inquiry instruction lesson based on one of the activities.

The activities presented in this session focus on electricity and magnetism topics. With small adjustments, they are appropriate for all introductory physics and physical science courses.

### Room 503

#### **Meaning-Full Mathematics**

**Sherri Kennedy, Newberry College RE-MAST Master Teacher**

This session will focus on exploring exemplary practices in mathematics instruction that enable students to understand and apply the mathematics they are learning.

### Room 511

#### **An Overview of Funding Opportunities for Undergraduate STEM Education at the National Science Foundation and Writing More Competitive Proposals**

**Dr. Bert Holmes, NSF**

The Division of Undergraduate Education (DUE) serves as the focal point for agency-wide support for undergraduate education. This presentation will include a brief overview of NSF programs within DUE that are of interest to faculty involved in undergraduate education [TUES (old CCLI), STEP, ATE and S-STEM] and NSF wide programs that support research involving undergraduates (REU, RUI, ROA, RET, MRI, and CAREER). The writing of more competitive proposals will be discussed.

**Room 513**

**Grand Challenges in Math and Science: Lighting the Fire in the Next Generation**

**Dr. Penny Noyce, The Noyce Foundation**

Teachers and leaders of technology-based businesses worry that too few of today's students are pursuing higher studies in science and mathematics. In this talk we will discover that this problem is universal among industrialized nations. After unpacking and attempting to better describe students' waning interests, we will consider concrete ways to suggest to young people that studying science and mathematics will enable them to tackle the grand challenges of energy, disease, conservation, fairness, and peace facing our world.

**Room 409**

**Do You See What I Say? Strategies for Mathematics Teachers**

**Renee Stubbs, Newberry College**

Did you know that the average student studying with the aid of a graphic organizer learns as much as the 90th percentile student studying the same content without the assistance of a graphic organizer? Graphic organizers combine the printed word and the spoken word making learning active, which makes it meaningful, and hence leads to the ultimate goal of effective learning for students. During the presentation Participants will create organizers and leave the presentation with many examples of organizers to use in the classroom.

**6:00**

**Dinner at the Phoenix Inn**

**Dr. Penny Noyce, Keynote Speaker**

**“Go Out and Do Something Wonderful: the Life of Robert Noyce”**

**Robert Noyce, a physicist, co-invented the integrated circuit and co-founded Intel, one of the world's most successful technology companies. His daughter Pendred Noyce will talk informally about her father's life and accomplishments in technology and business. Building on various anecdotes and incidents, she will suggest what advice Robert Noyce might give to new and aspiring teachers of mathematics and science.**

Saturday, March 26

Coffee available at Exceptional Catering in the mall

Session VI 9-9:50

Session VII 10-10:50

Session VIII 11-11:50

Please note there is no opening or closing session today as the auditorium is in use by another group.

We are using the same breakout rooms, upstairs, to the rear, and to the left.

## Breakout Session VI

9:00-9:50 a.m.

**Room 503**

### **Interactive Note Booking for Math and Science Classrooms**

**Melanie Longtin, Cassandra Leo, Wren Middle School**

Are you a teacher on a quest to encapsulate and promote the most cutting-edge constructivist teaching strategies while simultaneously addressing standards, differentiation of instruction, and literacy development? If so this is the workshop for you! Come learn how the use interactive notebooks in both math and science to enhance your students' interaction with the curriculum as they reflect and build academic knowledge. Lots of ideas to promote student learning!

**Room 511**

### **Classroom Strategies that Work (Session is repeated in Session VIII)**

**Dr. Joyce Beckett, Clemson University**

Learn proven management strategies to enhance your abilities in the classroom. This session is interactive, fun, and beneficial, introducing strategies that really work. The strategies you'll learn are based on the experience of a veteran educator/administrator and Fred Jones' materials.

**Room 513**

## **Classroom Activities and Projects for Algebra 1, 2, and Calculus**

**Beth Jarvis, Duke University**

As a current in-service teacher, I am always looking for activities and projects to use in the classroom instead of direct instruction. This session will focus on tangible resources for mathematics teachers to take back to the classroom. From creating a t-shirt with End of Course Test concepts to putting the Unit Circle on our everyday objects, my session will give you examples of creative ways to assess and teach your students. The activities will cover algebra 1, 2, PreCalculus and Technical Mathematics. Be prepared to take notes and handouts for your own files!

**Room 514**

## **The “Nuts & Bolts” of Implementing a Master Teaching Fellows Project: What We Have Learned**

**Drs. Rick Vanosdall, Michaele Chappell, Pat Patterson  
Middle Tennessee State University**

This presentation will highlight the successes and challenges of implementing one of six Master Teaching Fellows [MTF] projects funded in year 2009. The MTF project aims to transform STEM teaching and learning by redefining STEM education professional development and building the capacity to expand our mentorship model through developing master teachers in the field; building the professionalism of classroom practice; encouraging teachers to conduct critical inquiry; and providing them with necessary tools, and experiences to determine best practices in his/her context.

Some of the “nuts and bolts” include: selection of applicants, paying “salary supplements” to classroom teachers in districts that refuse to differentiate teacher salaries, and coordinating faculty across four departments and two colleges to support the development of practitioner-researchers. Additional topics address helping all involved partners and organizations “re-think” standard practices and finding new ways of implementing such a different kind of project.

**Room 409**

## **Grant Writing 101: A “How-To” Seminar**

**Michelle Hardy, Newberry College**

If you would like to learn the basics of writing grants, then this is the seminar for you! You will learn the “nuts and bolts” of grant writing, and you will leave with the tools necessary to fund your important projects.

## Breakout Session VII

10:00-10:50 a.m.

**Room 503**

### **Ecosystems Cycle Round and Round**

**Constance Russell, Cumberland County Schools**

The goal of this presentation is to enable attendees to make and take a mini ecosystem and to have lesson plans which enable the attendee to use within their classroom. A packet of activities is included that incorporate the ecosystems with follow up activities that includes water/soil quality testing. The series of lessons, when utilized in the classroom will enable students to discover what components are important in ecosystems, both abiotic and biotic. They will discover the role of bacteria, other biotic factors, abiotic factors, nutrient cycles within ecosystems, and how we humans influence ecosystems. The activities may be used as a unit lesson or may be used as stand-alone lessons. Due to the diversity of lessons and how easy the lessons may be manipulated, they may be used for Biology I, Advance Placement Biology, Advance Placement Environmental Science, or they may be used in a middle grade classroom for a unit on ecology that includes ecosystems.

**Room 511**

### **Teaching Science on a Budget**

**Matt Ball, Anderson District 5**

School budgets are back to funding levels of the early nineties. Many Noyce Scholars will be placed in Title I schools where budgets may be the most stressed. Teaching science can be expensive but it does not have to be. Noyce Scholars can bring the real world into the classroom using their knowledge and experience with inexpensive and effective demonstrations and activities that students will engage in and enjoy. The activities illustrated have been successfully used in a Middle School environment.



### **Room 513**

## **The Miracle of Science: A Du Pont Experience**

**Carrie Lynn Brewington, Hoke County High School**

The Kenan Fellows program sponsored by the NOYCE foundation provides opportunities for classroom teachers to partner with local industries. This presentation is an overview of the enriching two-year DuPont externship one teacher has experienced. As a member of the DuPont training team, this teacher was able to establish a bridge between a local industry and the secondary science classroom curriculum, allowing students exposure to innovative and relevant STEM applications. Participants will learn how this teacher brought a real-world application of STEM curricula to the classroom providing students with a relevant appreciation for their current science curriculum. This presentation details one classroom teacher's experience working alongside research scientists, chemists, engineers, and technicians at DuPont Fayetteville Works. Through personnel interviews, laboratory observations and prospective employee training data analyses, an overview of the skill sets required for post-secondary careers in this industry were gained and will be discussed throughout the lecture. This presentation will also include exciting and meaningful lesson plans and activities that have been based upon this externship that are useful for all STEM education programs.

### **Room 514**

## **Mathematics Connections in the Real World: Application Projects**

**Dr. Leah P. Coy, Brian Smith, Jill Klinepeter, Wake Forest University**

One major component in our high school mathematics teacher education program is application of mathematics in real-world contexts. We believe that student achievement is closely related to student engagement. We encourage student engagement by implementing innovative lessons in interesting contexts. Noyce candidates create these lesson projects, develop all materials, and teach the lesson in a high school class. All lessons model standards-based methods and include objectives, instructional activities, and assessments, and they incorporate technology and inquiry learning. Attention is given to making sure that the contexts are inviting to diverse students.

Candidates share their lessons with teachers at local and state meetings and make them available online. This year's focus, "Ripped from the Headlines: Math in the News," included lessons on the following topics: percent of change in stock market prices, regression models of salaries of professional athletes, percent of change and the egg recall, modeling rescue times of the Chilean miners, and modeling hurricane prediction. In this presentation, we will discuss the overall project as well as the specific examples.

## Breakout Session VIII

11:00-11:50 a.m.

Room 503

### **Activities to Promote Motivation and Reasoning for Mathematics Teachers**

**Dr. Hollylynne Lee, Allyson O'Neill, Kristin Casstevens, Ashley Swandby, Chris Limer, Tyler Brannan, North Carolina State University**

NCSU scholars are conducting an action research cycle, which is focused on motivation, reasoning, and sense-making. The scholars will discuss habits that promote motivation, reasoning, and sense-making in the classroom, based on the available research. In addition, the scholars will present activities that foster the habits that promote reasoning and sense-making as well as habits that promote motivation in classrooms.

Room 511

### **Classroom Strategies that Work**

**Dr. Joyce Beckett, Clemson University**

Learn proven management strategies to enhance your abilities in the classroom. This session is interactive, fun, and beneficial, introducing strategies that really work. The strategies you'll learn are based on the experience of a veteran educator/administrator and Fred Jones' materials.

Room 513

### **Interviewing Skills: Getting Your First Job**

**Dr. David Ledbetter and Ms. Margaret Spivey  
Greenville County Schools**

This session provides practical information on interviewing skills as you prepare to look for your first job. In this tough economic climate, knowing what interviewers are looking for is a distinct advantage. Experienced human resources employees from South Carolina's largest school district share their insights.

**Room 514**

## **Complex Instruction: Designing Groupwork for Middle Grades and Secondary Mathematics Instruction**

**Dr. Nicole Bannister, Clemson University**

Groupwork is an effective instructional strategy for achieving certain kinds of intellectual and social goals, including creating problem solving, increasing oral language proficiency, improving intergroup relations, keeping students engaged in class work, and managing instruction for students with a wide range of skills. Complex Instruction (CI) is a particular pedagogical approach that shows promise in achieving equitable student outcomes in heterogeneous classrooms because of its focus on multiple-ability classrooms, high-leverage teaching practices in conjunction with small groupwork, and status and accountability structures. The goal of this presentation is to provide an overview of CI through the lens of middle grades and secondary mathematics classrooms, and distinguish this method from other cooperative learning strategies.

**Room 409**

## **Teaching the Scientific Method**

**Tara Blalock, Duke University**

The Scientific Method, it is the heart of the scientific process and the crux of what we endeavor to teach our students. This year, instead of having your kids memorize and list those same steps – again – teach them in a way that engages them in the process of science and gives them the freedom they desire to choose what *they* want to investigate. Join me for an interactive session in which you will design and carry out your own investigation, and walk through the project basics. Adapt this standards-based unit for any course and level of rigor, even use it as a foundation for preparing students to enter the science fair. All project materials will be distributed in hand-out format, and participants will also receive direction to electronic copies via the Internet.

To facilitate improvements in next year's conference, please fill out the conference evaluation form and turn it in at the Orange Basket on the registration table located in the UCG. Thank you!

This conference was funded by a National Science Foundation grant awarded to Clemson University in partnership with Newberry College.

Conference committee: Dr. Lienne Medford, Dr. Cindy Johnson-Taylor, Dr. Christina McCarthy, Dr. Delayne Johnson, Dr. Cassie Quigley, Melissa Coy, Rachel Kaminski

Program  
Printed by Indexx  
Greenville, SC