

**AMERICAN CHEMICAL SOCIETY
SOUTH CAROLINA SECTION**



National Chemistry Week Mini-Grant Application Cover Sheet

PROJECT TITLE	National Chemistry Week Educator Workshop		
ORGANIZATION NAME	College of Charleston Lowcountry Hall of Science and Math		
CONTACT NAME	Starr Jordan		
MAILING ADDRESS	66 George Street		
CITY	Charleston	ZIP	29424
TELEPHONE	843.953.7847	FAX	843.953.7850
EMAIL	jordans@cofc.edu		
NAME FOR USE ON GRANT DISBURSEMENT CHECK IF DIFFERENT FROM ORGANIZATION NAME	College of Charleston		
TOTAL BUDGET FOR PROJECT	\$2500		
DOLLAR AMOUNT REQUESTED FROM SC-ACS	\$300		
DATE SUBMITTED	August 31, 2012		
SIGNATURE (if submitted electronically you may simply type your name)	Starr Jordan		

Please send cover sheet and proposal by September 1 by either email to deavorj@cofc.edu or send to
Dr. James Deavor
Department of Chemistry & Biochemistry
College of Charleston
Charleston, SC 29424-0001

The Lowcountry Hall of Science and Math (LHSM) is offering a workshop for K-12 educators centered on the 2012 NCW theme of “Nanotechnology: The Smallest BIG Idea in Science” on Saturday, October 20, 2012. The 4-hour workshop at the College of Charleston is open to all (public, private, and homeschool) educators and will include hands-on activities that they can perform in their class during NCW and throughout the year. During the workshop, participants will complete each activity and discuss how it relates to their content/grade area and the SC Science Standards. This open workshop format allows educators to discuss relatable experiences and activities, thus building collaboration and increasing the activity potential.

The following activities have been collected from a variety of educational sources, including ACS, *Nanooze* magazine, and the Nanoscale Informal Science Network.

- Exploring Size
 - Jeweler’s Loupes/Introduction to Scale and Power of 10
 - Does Size Make a Difference? (ACS activity)
 - Constructing Macro-Models: Nanotubes and Buckyballs

- Exploring Materials
 - Graphene (ACS activity)
 - Coloring- Changing Silly Putty
 - Rain-X: Water-proofing
 - Magic Sand: Water-proof Clothes
 - Hydrogels (ACS activity)
 - Sunscreen: Safe in the Sun (ACS activity)
 - Memory Wire

The LHSM will advertise the workshop via its listserv of science educators in SC. The Science Coordinators at Charleston and Berkeley County School Districts will also be notified directly. The workshop participants will pay a registration fee of \$15 to ensure attendance, but will receive materials valued at \$75 or more to perform the activities in their classroom. A grant to the College of Charleston by the Howards Hughes Medical Institute will contribute \$1000 towards the materials for educators. The Lowcountry Hall of Science and Math will pay for the remaining expenses (estimated at \$900). Please see the attached list of materials to be purchased through the SC-ACS mini-grant. Should funding not be available from SC-ACS, the LHSM will cover the expenses.

Safety precautions and classroom management suggestions will be discussed with each activity and included in the activity guide book. Participants will use safety goggles provided by the LHSM. Educators who do not have safety goggles may borrow child and/or adult sizes from the LHSM. Any appropriate MSDS will be provided with the activities.

Requested Materials & Estimated Costs

Material Description	Activity	Source	Qty	Total Amount
Celebrating Chemistry newsletters (250/box)	All	ACS	3	\$30
5mm LED Bulb	Graphene	RadioShack	23	\$40
9 volt snap connectors	Graphene	RadioShack	23	\$61
330 Ohm resistor	Graphene	RadioShack	23	\$27
Insulated wire leads	Graphene	RadioShack	5	\$40
Heat sensitive periodic tables (30/pk)	All	Educational Innovations	1	\$17
Fluorescent Magic Sand (1 lb.)	Magic Sand: Waterproofing Clothes	Educational Innovations	5	\$30
UV Beads (approx. 3000)	Sunscreen: Safe in the Sun	Educational Innovations	1	\$55
			Total	\$300