

Nanoscale Science and Engineering Education (NSEE) Materials Exhibition

Part of an NSF funded NSEE Workshop

Free Event at the Westin Arlington Gateway Fitzgerald Ballroom A December 11, 2014 1:00 to 3:00 pm

- See proven nanoscale education resources from around the world
- Talk with over 25 different developers (including NanoSchoolBox-Europe, NanoDays-NISENet, nanoHUB-Purdue)
- Learn where to find these incredible resources
- Explore ways you can use them

NSE Provides Important New Perspectives to Education

It is important to introduce nanoscale science and engineering (NSE) into current teaching practice at all levels. For the past two decades people have been working on ways to do just that. After years of shaping nanoscale education resources into useful materials, they are ready for larger audiences.

At the nanoscale materials behave differently. This is why water rolls off of lotus leaves and geckos can walk on the ceiling. Looking at these differences brings fresh insights that



fit nicely into standards-based teaching. Studying the nanoscale brings together biology, chemistry, physics and engineering into a truly multidisciplinary adventure.

Nanotech Is Enabling Solutions to Societal Challenges

Understanding the different ways materials behave at the nanoscale will lead to new solutions to societal problems. NSE is being used to upgrade information technologies; create new medical diagnostics and therapeutics; and build affordable, renewable energy sources. Further, we need an informed public in order to address concerns about nanostructures' environmental, safety and health impacts.



For more information on what you will experience visit <u>www.usc.edu/esvp</u> and enter password NSEE

REFRESHMENTS AVAILABLE

Preliminary Listing of Exhibitor Participation

California NanoSystems Institute (CNSI), Education

https://www.cnsi.ucsb.edu/education/ Jia Ming Chen CNSI, University of California, Los Angeles

Center for Biological and Environmental Nanotechnology (retired NSEC), Education

http://cben.rice.edu/education.aspx Vicki Colvin Rice University

Center for Hierarchical Manufacturing (CHM, NSEC), Education

http://chm.pse.umass.edu/education_outreach Mark Tuominen University of Massachusetts, Amherst

Materials World Education Modules

http://www.materialsworldmodules.org/NCLT Robert Chang Northwestern University

MRSEC Education Group

http://education.mrsec.wisc.edu/index.htm Anne Lynn Gillian-Daniel University Wisconsin-Madison

nanoHUB, Education

https://nanohub.org/groups/education Tanya Faltens, Gerhard Klimeck Network for Computational Nanotechnology, Purdue University

NanoLink

http://www.nano-link.org/ Deb Newberry Dakota County Technical College

NanoSchoolBox/NanoSchool Kits

http://www.nanoschoolbox.de/en/nutzungsbedingungen.html Ralph Nonninger Advanced Materials Science, rano GmbH, Germany

Nanotechnology Applications and Career Knowledge (NACK)

http://nano4me.org/ Stephen Fonash Pennsylvania State University

National Nanotechnology Infrastructure Network, Education

http://www.nnin.org/education-training Nancy Healy, Joyce Allen Georgia Institute of Technology

Nanoscale Informal Science Education (NISENet)

http://www.nisenet.org/ Larry Bell, Carol Lynn Alpert Boston Museum of Science

NanoScience Instruments

http://www.nanoscience.com/applications/education/ Mark Flowers NanoScience Instruments

National Science Teachers Association (NSTA)

http://learningcenter.nsta.org/discuss/default.aspx?tid=ScKJe0zFq28_E Patricia Simmons North Carolina State University

Nanoscale Instructional Materials

Robert Geer CNSE, SUNY Polytechnic Institute

Nanoscale Instructional Materials

Nancy Burnham Worcester Polytechnic Institute

Nanoscale Instructional Materials

Anna-Rita Mayol Port Educational Consulting and University of Pennsylvania

Nanoscale Instructional Materials

http://chemistry.beloit.edu/edetc/nanolab George Lisensky Beloit College

Nanoscale Instructional Materials

Walt Trybula Texas State University

Nanotechnology Handbooks and Encyclopedia

http://www.springer.com/materials/nanotechnology/book/978-90-481-9750-7 Bharat Bhushan Ohio State University

Mid-continent Research for Education and Learning (McRel)

http://www.mcrel.org/nanoteach/ John Ristvey University Corporation for Atmospheric Research (UCAR), formerly with McRel

Omni Nano

http://www.omninano.org/ Marco Curreli Omni Nano

Atelgraphics

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