# NANOIOI

How to Introduce the Smallest Science

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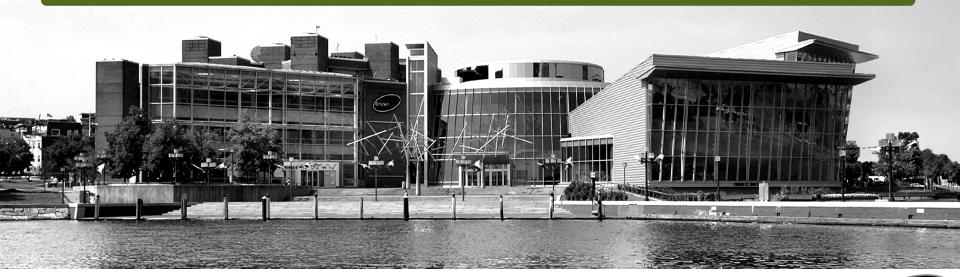
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#### MARYLAND SCIENCE CENTER

90 full time · 120 part time · 200 volunteers annual operating budget – \$15 million average annual attendance – 500,000







### GOALS

presenters will gain an understanding of NISE Net's key concepts

presenters will be prepared to facilitate personal connections between nano and diverse guests





# PLANNING



#### Engaging the Public in Nano:

Key Concepts in Nanoscale Science, Engineering, and Technology





#### Nanoscale Science Informal Learning Experiences:

NISE Network Content Map



Developed by Marjorie Bequette, Rae Ostman, Kirsten Ellenbogen, Greta Zenner Petersen, Darrell Porcello, Troy Livingston, Marilyn Johnson, and Paul Martin for the NISE Network.





### KEY CONCEPTS

nano is small and different

nano is studying and making tiny things

nano is new technologies

nano is part of our society and future





#### NANO IS SMALL AND DIFFERENT

Exploring Forces - Gravity (big cup, little cup)

Exploring Properties - Surface Area (Alka-Seltzer)

counting surfaces of blocks activity
similar to **Surface Area - Cart Demo** 

**Exploring Materials – Nano Gold** 





# NANO IS STUDYING AND MAKING TINY THINGS

**Exploring Materials – Thin Films** (nail polish)

with iridescent insect extension

Exploring Products – Nano Fabrics

with kale leaf extension

**Exploring Fabrication – Self Assembly** (full body game)





#### NANO IS NEW TECHNOLOGIES

#### **Exploring Products – Sunblock**

with UV bead & UV light extension

free exploration of:

technology cards from Nano Around the World

http://www.nanosupermarket.org/products

http://www.nanotechproject.org/cpi/browse/





# NANO IS PART OF OUR SOCIETY AND FUTURE

Exploring Nano & Society – Invisibility Cloak

Exploring Nano & Society – You Decide!

with supplemental cards from

Nano Around the World card game





### IMPACT



nanoscale science and engineering?

how nanoscale things behave differently?

how nano relates to our daily lives?







# QUESTIONS?

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