

Nano for Summer Camps



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Nano Science Camp



Summer, 2013

Super Science Program

“Just because you can't see something doesn't mean it isn't there.”

Goals

- Foster curiosity about the unseen world
- Encourage critical thinking
- Jump start an interest in science

Lesson Topics

- Magnetism
- Electricity
- Microscopic Substances

Energy Plasma



Lighting the bulb by making a circuit.



Ribbons of color follow the touch of a finger to the Plasma ball.

Energy

Heat



Touch and See Square



Fortune Fish

Energy Sound



Energy Sound



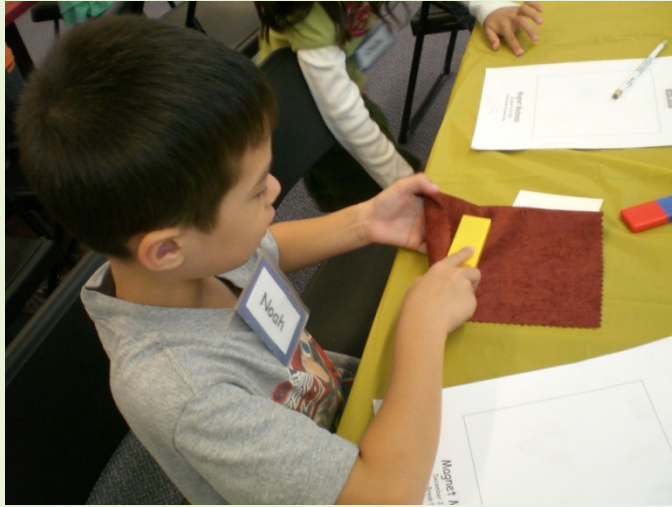
Ear Guitar



Boom Whackers

Unseen Forces

Magnetism



Too Small to See

Big Screen Microscope



The Right Tools



Avalanche Fruit Stand



Wearing mittens or gloves while trying to build with blocks can help children understand how important the “right” tools can be!

Nano Summer Camp

Just because you can't see something
doesn't mean it isn't there!



Exploring the Unseen World – Nano Camp Spring/Summer 2013



Meghan Schiedel
Curriculum Developer
The Terry Lee Well's Nevada Discovery
Museum

Camp Development



Grades – 5-7

Funding – NISEnet mini grant

Resources –

- NISEnet Nano camp framework
- 2011-2012 Nano days kits
- Additional online resources
- National meeting sessions on camps



Camp Outline

Day	Monday	Tuesday	Wednesday	Thursday	Friday
THEME	Just how small IS nano?	Nano in nature	New in Nanotechnology	Special tools in nano	Nanotechnology leads to new knowledge and innovation



Challenges or Things to Consider



- Selling it!
- Scheduling scientist
- Balancing fun with learning goals





AG AND NANO SUMMER CAMP

Ag and Nano Summer Camp

- Day 1 – What is Nano
- Day 2 – Nano and Nature
- Day 3 – The Sweet Life
- Day 4 – Special Tools
- Day 5 – Innovation



What made it different?

- 33 students/11 FFA
- Nominated by teacher
- Held at school site
- Each day featured:
 - Guest scientist
 - Box of Science (Homework)
 - Food



Real Scientists Set the Stage



Day 1 Homework – Insect Collecting



Day 2 - Build a Bug Homework



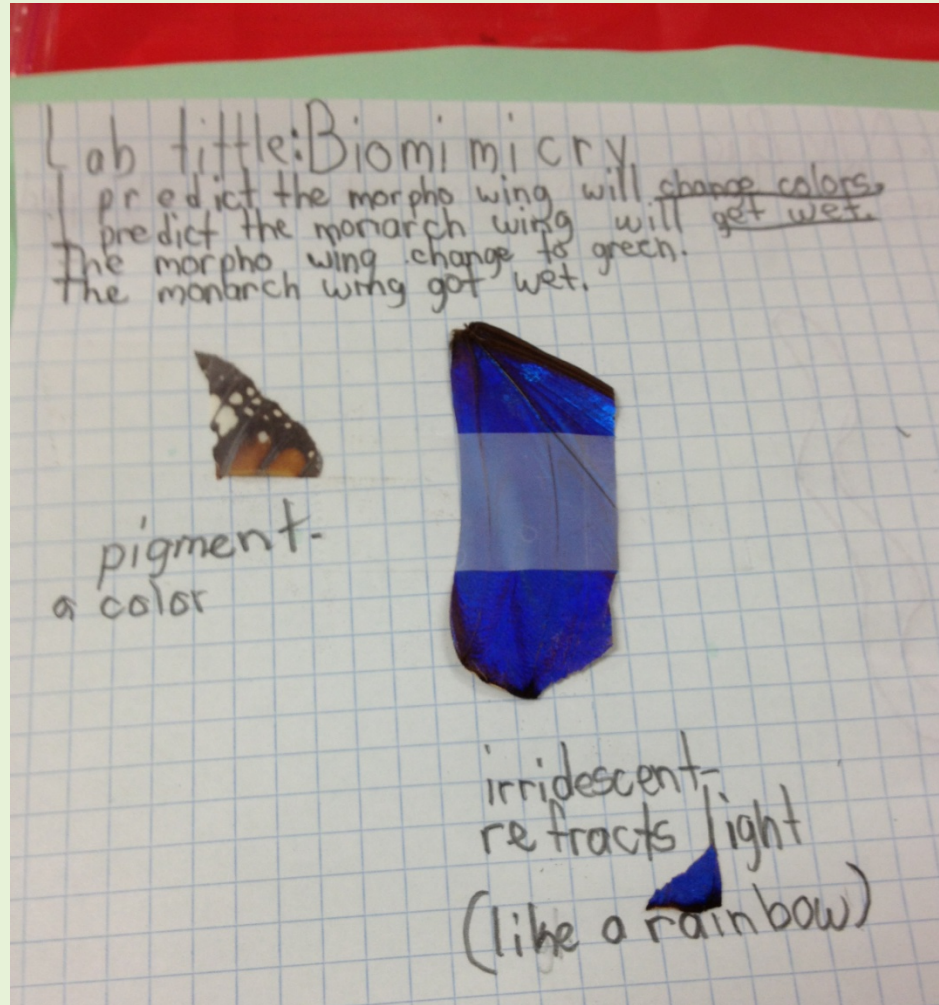
Snowflakes and Crystals



Gecko Tape



Pigments v.s. Iridescence



Day 3 - Chromatography



Molecular Gastronomy



Nano Ice Cream



Day 4 – Build a Bot



Armed and Dangerous



Finale – A Taste of Agriculture





Check out the cool
guest scientist!