

FREDERICK COUNTY SCIENCE ENGINEERING FAIR
March 27, 2004 Awards

23rd Annual

Student Project Listing by Category

Middle School Division

BEHAVIORAL & SOCIAL SCIENCE

First	Last	Title	School	Awards
Caitlin	Costello	Does Mozart Mean Mo's Smart?	Walkersville	1st
Helya	Ghaffari	Concentration Distraction	Ballenger Creek	2nd
Ariel	Greenspoon	Battle of the Noses	West Frederick	2nd
Sofia	Ferber	Got the Blues?	New Market	3rd
Noelia	Gascon	How Do Smells Affect Male and Female Moods?	Walkersville	Honorable Mention

BIOCHEMISTRY

First	Last	Title	School	Awards
Martin	Brown	Martin Goes Electric	Walkersville	1st
Margaret	Nehring	Electricity in the Human Body	Monocacy	2nd
Teresa	Gilbert	Chicle Caliente	Walkersville	3rd
Devin	Smith	Chicle Caliente	Walkersville	3rd

BOTANY

First	Last	Title	School	Awards
Erich	Diesel	Would You Like Salt with those Beans?	Walkersville	1st
Melissa	Hoyle	What Percentage of water do different fruits contain?	New Market	2nd
Jenna	Sprague	The effect of a chemical on a domestic houseplant.	Windsor Knolls	3rd
Trey	Davis	What kind of water do plant / flowers like best?	Windsor Knolls	Honorable mention

CHEMISTRY

First	Last	Title	School	Awards
Andy	Casadonte	Can you use thermo luminescence to identify Chemical Substances	Walkersville	1st
Hannah	Fix	The effect of washing on the burn rate of fire retardant material.	Windsor Knolls	2nd
Jarrod	Follweiler	Acidic or Basic	Walkersville	Honorable Mention
Jessica	Gilbert	Which colors will we find in foods?	Walkersville	Honorable Mention
Jan	Michael	Are more house cleaning chemicals Acids or Alkalis and which ones work better	Walkersville	Honorable Mention
Regina	Zolbrod	Battery Endurance	Brunswick	Honorable Mention

EARTH AND SPACE SCIENCE

First	Last	Title	School	Awards
Kathleen	Crockett	Sunshine: The Fader	Walkersville	1st
Helen	Solis	Sunshine: The Fader	Walkersville	1st
Macy	Appleby	We're not in Kansas anymore	New Market	2nd
Rachel	Daw	Solar Air Heater	New Market	3 rd
Scott	Demattia	Solar Air Heater	New Market	3rd

ENGINEERING

First	Last	Title	School	Awards
Robert	Minnema	An investigation of the Electrolysis of Water for Producing Hydrogen as a Potential Energy Carrier	Monocacy Valley Montessori	1st
Katie	Mazikins	Tough as Nails	Walkersville	2nd
Ryan	O'Flaherty	Sturdy Studies	New Market	3rd

ENVIRONMENTAL SCIENCE

First	Last	Title	School	Awards
Kirsten	Thomas	What is the Most Effective Way to Clean Up an Oil Spill?	Brunswick	1st
Carolyn	Carter	Soil Erosion	Brunswick	2 nd
Rachel	Domoter	Wetlands	New Market	3rd
Nathan	Rhoderick	How will your garden grow?	New Market	3rd
Laura	Hobbs	Acid Rain--It's a pain if you're a Pine Tree	Walkersville	Honorable Mention
Stewart	Simons	Water Flow on the Tuscarora	Walkersville	Honorable Mention

MATHEMATICS

First	Last	Title	School	Awards
Clare	Lyons	Escape from a 1-Dimensional Random Walk	Visitation Academy	1st

MEDICINE & HEALTH / GERONTOLOGY

First	Last	Title	School	Awards
Devon	McCurdy	Will Backpacks Lean to a Disaster?	Walkersville	1st
Chris	Dextras	What impact does cold external temperatures have on the human's heart?	Walkersville	2nd
Shawn	Hamel	How fast can you run?	New Market	3rd

MICROBIOLOGY

First	Last	Title	School	Awards
Skylar	Mackay	Do Blepharisma populations living in half-dark environments survive as well as those in all dark environments?	The Banner School	1st
Nicole	Birrer	Bacteria vs. Antibiotics	Home Schooled	2nd
Mike	Holcomb	Moving Protist	Gov. Thomas Johnson	2nd

PHYSICS

First	Last	Title	School	Awards
Marvin	Gee	The Effects of Magnetism on Electricity	Ballenger Creek	1st
Chris	Felton	Insane Insulation	New Market	2nd
Stephen	McGoogan	The effects of temperature on Conductive Solutions	Walkersville	3rd

ZOOLOGY

First	Last	Title	School	Awards
Nadia	Mahmassani	How does food availability impact ant colony organization?	Banner	1st
Nicholas	Gavin	Frog Hibernation	New Market	Honorable Mention
Josh	Rippeon	Frog Hibernation	New Market	Honorable Mention
Danny	VanNess	What Food Do My Guinea Pigs Like the Most?	Walkersville	Honorable Mention

Grand Prize Winner:

Skylar Mackay

Microbiology

The Banner School

Do Blepharisma populations living in half-dark environments survive as well as those in all dark environments?

First Runner Up:

Nadia Mahmassani

Zoology

The Banner School

How does food availability impact ant colony organization?

END OF MIDDLE SCHOOL

High School Division

BIOCHEMISTRY

First	Last	Title	School	Award
Brian	Pepper	Fra-1 target genes for cancer intervention	Middletown	1st

ENVIRONMENTAL SCIENCE

First	Last	Title	School	Award
Gregory	Shedd	Are the sediments in riparian zones more toxic to the common earthworm, <i>Lumbricus terrestris</i> , after reducing the toxicity of agricultural runoff?	Middletown	2nd

MATHEMATICS

First	Last	Title	School	Award
Alan	Gee	Chaos Theory: An Analytical Model of Heart Fibrillations	Frederick	1st

MEDICINE & HEALTH / GERONTOLOGY

First	Last	Title	School	Award
Erik	Crawford	Differential Methylation of a 455 Ribosomal RNA Promoter in the sperm: Implications for Chromium (III)-Induced Transgenerational Carcinogenesis	Middletown	1st
T. J.	Remsberg	Adenovirus particles are preferentially retained in A549 cells grown in EX-CELL media	Middletown	2nd

PHYSICS

First	Last	Title	School	Award
Teddy	Kamata	Fleming's Left Hand Rule	Frederick	3rd

ZOOLOGY

First	Last	Title	School	Award
Jarrett	Remsberg	Effects of Dietary Phosphorus on the Excretion of Total Phosphorus and Soluble Phosphorus in the Feces of Lactating Dairy Cows	Middletown	2nd
Vladimir	Tarasov	Molecular Genetics Characterization of Captive Tigers (<i>Panthera Tigris</i>)	Frederick	2nd
Caroline	Shedd	Can the behavior effects of light on the waterflea, <i>Daphnia magna</i> , Be Applied to Enhance Night Fishing?	Middletown	Honorable Mention

The following students will represent Frederick County at the International Science Fair (ISEF) in Portland, Oregon, May 8-15, 2004.

High School Grand Prize Winner:

Alan Gee Mathematics

Frederick High School

Chaos Theory: An Analytical Model of Heart Fibrillations

High School First Runner Up:

Brian Pepper Biochemistry

Middletown High School

Fra-1 target genes for cancer intervention

END OF HIGH SCHOOL