



North Bay SCIENCE DISCOVERY DAY

Saturday, March 11, 2023

10:00 a.m. to 4:00 p.m.

Sonoma County Fairgrounds

A community science festival to spark children's wonder and curiosity for science, technology, engineering, and mathematics!

northbayscience.org

Welcome

The sponsors, exhibitors, and volunteers welcome you to the 2023 North Bay Science Discovery Day - our 11th event! We hope to inspire young people to pursue STEM education and careers by engaging them with hands-on STEM activities. Continuing to work collaboratively with educators and employers, we support the next generation's interest and curiosity. Working together we witness the engaging and growing interest in STEM careers, build a global competitive workforce, and increase the economic vitality of the North Bay.

Glenda Humiston
Glenda Humiston, PhD
Vice President



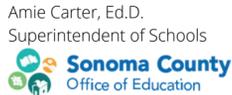
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Eric Verdin, MD
President & CEO



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Kathy Goodacre
CEO



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Amie Carter, Ed.D.
Superintendent of Schools



John A. Carroll
John A. Carroll
Superintendent of Schools



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Sponsors



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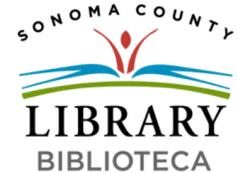
Donald and Virginia Pierce

Lyman Black

Kirsten Gamble

Steven and Heather Worker

Partners and In-Kind Sponsors



How was it? Share your feedback



ENGLISH

Please help us learn about your experience to help make future science festivals even better!



ESPAÑOL



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Media Partners



Volunteer Planning Team

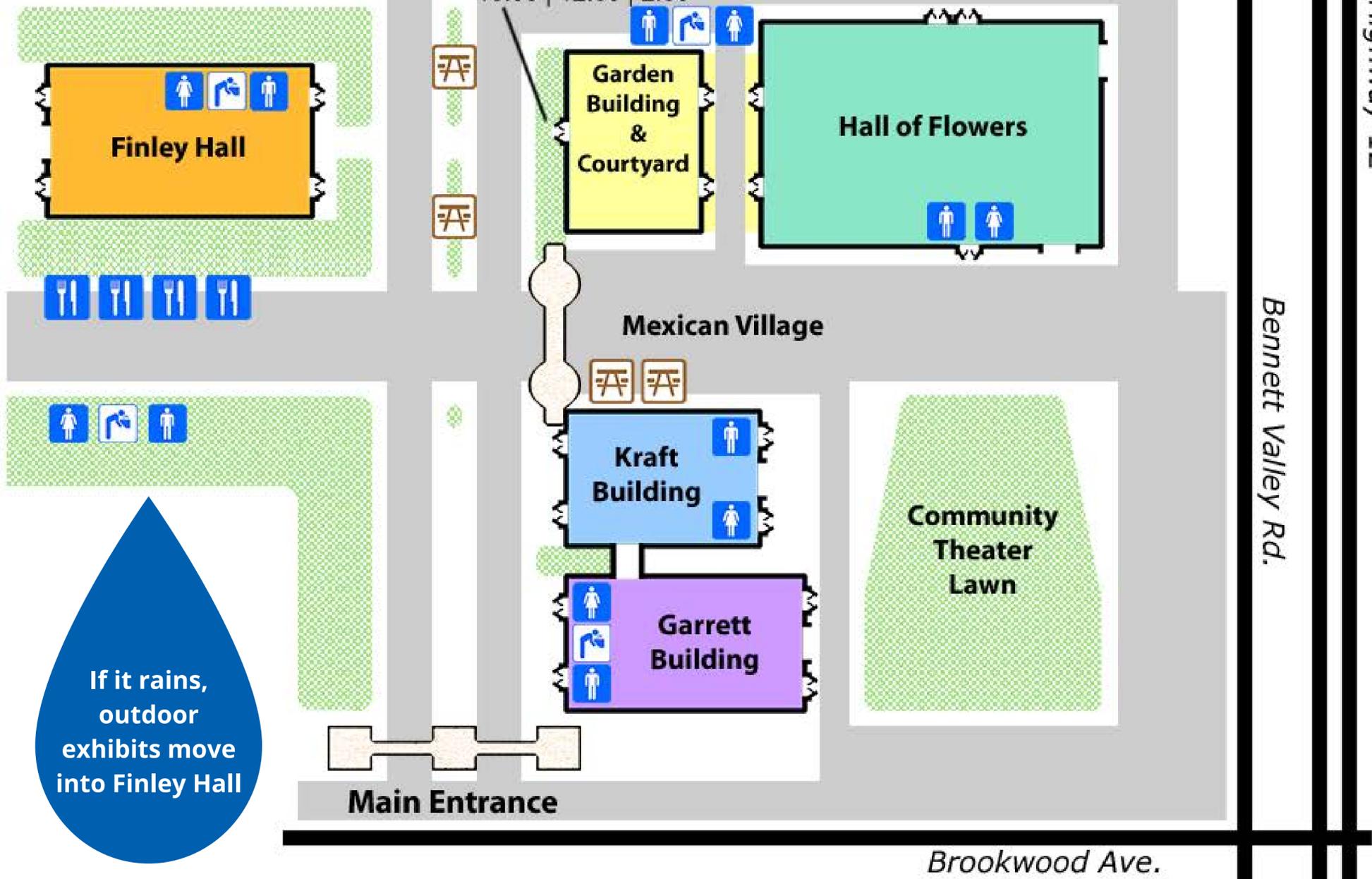
The volunteer planning team live, work, and play in North Bay communities. Thank you B. Gabriela Arango, Dennis Bentley, Lyman Black, Rachel Icaza, Steve Kadar, Dane Lancaster, Stuart Levin, Susan Magnone, Don Pierce, Mike Roa, Jessica Ruskin, Kerry Winger, and Steven Worker.

Please consider joining the volunteer planning team!
Email to inquire at info@northbayscience.org

THE HYDROUS

10:30 | 12:00 | 2:00

Entrance Gate 2



If it rains,
outdoor
exhibits move
into Finley Hall

Kraft

- Charles Schulz Museum
 - Creecer ConCiencia
 - Denali Therapeutics
 - KBBF Radio
 - LandPaths
 - NorCal Bats
 - North Bay Science Discovery Day
 - Pepperwood Preserve
 - Recology Sonoma Marin
 - Sonoma County Family YMCA
 - SRJC Computer Studies Department
 - Sonoma Radio Amateurs Youth Lounge
 - The Bird Rescue Center
 - XRMARIN Immersive Learning Lab
- How does animation work?
¿Sabes porqué son tan importantes los océanos, que problemas tienen y como tú puedes salvarlos? How to help our oceans?
What does a brain look like and how does it function?
How do sounds get from a microphone to a radio through the air?
¿Cómo llega el sonido desde un micrófono hasta la radio?
What do you notice? What do you wonder? What does it remind you of?
Why is our food healthier when there are enough bats around?
What do you know about the most common shark off your shores?
What do you see? ¿Que ves?
What bin does that item you are about to throw away go in?
Why are animals colored the way that they are?
What happens when you combine diet cola with Mentos candy?
How do you build a simple electrical circuit?
Why should we work to conserve bird existence and habitats?
How will climate change impact coastal cities of California?

Garrett

- Audubon Canyon Ranch
 - California Native Plant Society
 - Medtronic - Saving Lives with Scientific Minds
 - Mobile Climate Science Labs
 - North Bay Science Discovery Day
 - Point Blue Conservation Science STRAW Program
 - Point Blue Conservation Science Marine Laboratory
 - UC Berkeley RadWatch & DoseNet
 - UC Berkeley Formula Racing
- How can you live in harmony with your wild neighbors?
How do our native oak trees help fight global warming and promote biodiversity?
How does medical device technology save lives?
How are students making energy efficient?
Which animal can you identify from its skull or track?
How do we impact a watershed with our actions?
What can we learn about ocean health from the prey of seabirds, sea lions, and whales?
Where do we find radioactivity in our environment and how do we measure it?
What makes a race car fast?
- Student Volunteer Check-In**

Community Theater Lawn

- Boy Scouts of America
 - California Highway Patrol (CHP)
 - Children's Museum of Sonoma County
 - Pacific Coast Air Museum
 - Precision Crane Service Inc
 - Robert Ferguson Observatory
 - Sonoma County Library
 - Sonoma Resource Conservation District
 - STEMinism - Sonoma Academy High School
 - Stewards of the Coast and Redwoods
 - UC Fire Science
 - Zero Waste Sonoma
- What interests you about STEM with outdoor adventure and peer leadership?
How does CHP make traveling on our roads safer?
How can you make a paper rocket that will launch with compressed air?
How does an aircraft fly?
What can we use cranes for?
Ever wondered what the surface of our Sun looks like?
How does the weight on a paper airplane affect the distance it will travel?
How do our forests adapt after a natural disturbance?
How does art float? What causes dry erase marker not to like water?
What critters live in the intertidal zone?
How are California's ecosystems shaped by fire?
What is recyclable? What is not? Why?

Garden

- American Chemical Society
 - Project Super Plants
 - ROV Tour: DIY Underwater Robotics
 - Sonoma Earth School
 - The Hydrous
- How does solar-powered chemistry split water into oxygen and hydrogen?
How can you supercharge plants to reduce global warming?
What can you do with an underwater robot?
How do you interact with the environment around you?
What does it feel like to be an ocean explorer or marine biologist?
- Adult Volunteer Check-In**

Hall of Flowers

- 501st Legion - Golden Gate Garrison
 - Advanced Personalized Learning
 - Bakar ImmunoX
 - BioMarin Research and Early Development
 - Boys and Girls Clubs of Sonoma-Marin
 - Buck Institute for Research on Aging
 - California State Parks
 - Career Technical Education Foundation Tinker Academy
 - Dow Development Laboratories
 - Girl Scouts of Northern California
 - Keysight Technologies
 - Petaluma Wildlife Museum
 - Endor Base
 - SRJC Biology
 - SRJC Chem Club
 - UC Davis Science Says
 - Sonoma County Ag + Open Space
 - Sonoma County Beekeepers Association
 - Sonoma State Nursing Student Association
 - Sonoma State University - Center for Environmental Inquiry & Bio Outreach
 - Sonoma Water
 - The Xerces Society, Inc.
 - U.S. Geological Survey (USGS)
 - Ultragenyx Pharmaceutical
 - UC 4-H Youth Development Program
 - UC The Lawrence Hall of Science
 - UC Liberty 4-H Beekeepers
 - Veolia
 - Viavi
 - WildCare
- What is the science and science fiction in Star Wars character costumes?
How do robots work? What is a fluidized bed? How do video games work?
How do immune cells identify pathogens? How do scientists create vaccines? What can you see in the microscopic world?
How are new drugs made and tested?
What else could the guts of a computer be reimagined as?
What does the microscopic world look like?
Have you ever thought about the creatures living all around us?
How do children do engineering?
What are polymers?
How can you build a high jumping leap bot? Do you know how to code for good?
How does radar work? What are waves? How is Skyfox different from a normal drone? What does music look like? How good is your hearing vs your parents? How do remote controls work? What if everything with a wheel(s) had an integrated suspension circuit?
What are the threats to biodiversity and what can we do protect biodiversity?
Who's your favorite?
What do real lungs look like in action?
Why does color sometimes change in a chemical reaction?
What do you like most about science?
What does land conservation mean to you?
Why are Honeys Bees and Pollinators important?
What is the best way to wash your hands to prevent the spread of infection?
What is unique & important about the habitats in our watershed? ¿Qué es único e importante de los ecosistemas en la cuenca de agua?
How do aquatic macroinvertebrates indicate watershed health?
What invertebrates are in your neighborhood?
How close to a fault do you live?
What is magnetism and how can we visualize it?
How can you design, build, and test a scribbling machine?
How do our eyes and brain work together to make sense of the world around us?
How do honey bees help plants?
How do microscopic organisms keep our water clean?
Have you ever wondered how color changes in nature?
What in the world did that owl cough up?