



# North Bay SCIENCE DISCOVERY DAY

**Saturday, March 9, 2024**  
**10:00 a.m. to 4:00 p.m.**  
**Sonoma County Fairgrounds**

*A community science festival to spark young people's wonder and curiosity for science, technology, engineering, and mathematics.*

## Welcome

The sponsors, exhibitors, and volunteers welcome you to the 12th annual North Bay Science Discovery Day! Our mission is to spark young people's wonder and curiosity about science, technology, engineering, and mathematics (STEM); strengthen the San Francisco North Bay's STEM learning ecosystem; and connect the STEM industry, education, and public sectors to deepen and sustain young people's STEM learning. 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.

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### We recognize and appreciate our volunteer planning committee!

B. Gabriela Arango, Dennis Bentley, Lyman Black, Rachel Icaza, Mandy Kirk, Stuart Levin, Kelly Mackura, Susan Magnone, Roshini Narayanan, Emily Nikonets, Don Pierce, Mike Roa, Jessica Ruskin, Jose Villagomez, Kerry Winger, and Steven Worker.

Contact us at [info@northbayscience.org](mailto:info@northbayscience.org)

## Want more science?!

Find other science programs, camps, and experiences at  
[www.sciencenearme.org](http://www.sciencenearme.org)

**Save-the-Date for next year's  
 Discovery Day: Saturday, March 8, 2025**

[www.northbayscience.org](http://www.northbayscience.org)

**Be an exhibitor! Volunteer! Become a sponsor!**

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## Hosting Sponsors



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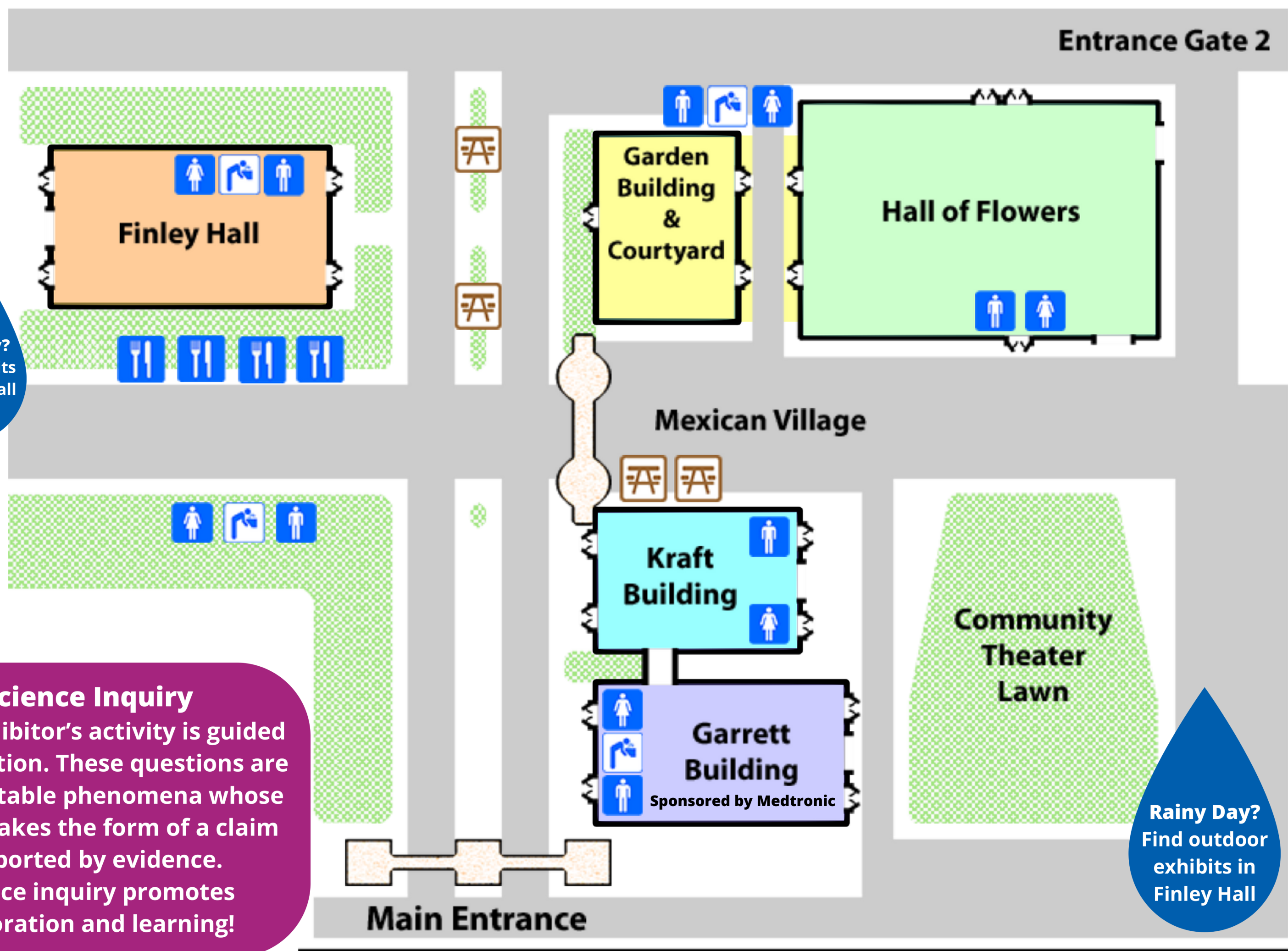
## Media Partners



The Press Democrat  
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**Rainy Day?**  
Find exhibits in Finley Hall

**Science Inquiry**  
Every exhibitor's activity is guided by a question. These questions are investigatable phenomena whose answer takes the form of a claim supported by evidence. Science inquiry promotes exploration and learning!

**Rainy Day?**  
Find outdoor exhibits in Finley Hall

**Kraft**

Charles M. Schulz Museum	How does science make still images appear animated?	English
Denali Therapeutics	What does the brain look like and how does it function?	English
Donald Laird	What happens when you combine diet cola with Mentos candy?	English
Lions Club	What helps keep our eyes healthy?	English, Spanish
NBSDD Specialty Exhibit	What is a dogfish shark and what does it mean to us?	English
NorCal Bats	Why do farmers and gardeners need bats?	English
Recology	What waste goes into each waste stream container?	English
Sonoma County Family YMCA	What plants do healthy foods come from?	English
Sonoma County Office Of Education	How can we create, imagine and innovate with light and dark?	English
Sonoma County Radio Amateurs	How do light emitting diodes (LED) work?	English
TCRI, Teach Climate & Redefine It	What is your climate pledge you want to blossom into habit?	English
Zero Waste Sonoma	What do you know about recycling? Play our plinko game!	English, Spanish

**Garrett**

Alan The Amazing	Why does the public perception of science as "magic" impact society attitudes towards science and technology?	English
Expanding Your Horizons	What can I be in science or engineering when I grow up?	English
Medtronic	How do we save lives using medical technology?	English
California Native Plant Society	What are the benefits of restoring the ecology around rivers?	English, Spanish
Mobile Climate Science Labs	Where would you like to see money saved, energy waste cut, and the climate protected?	English, Spanish
NBSDD Specialty Exhibit	How well can you identify the animal skull and match it to its track?	English
Point Blue - Conservation Science	What can we learn about the health of our oceans from the prey of seabirds, sea lions, and whales?	English, Spanish
Point Blue - STRAW Program	How can we help our watersheds?	English, Spanish
The Bird Rescue Center	Why should we work to conserve bird's existence and habitats?	English
UC Berkeley RadWatch & DoseNet	Where do we find nuclear radiation and how do we measure it?	English

**Community Theater Lawn**

Boy Scouts of America	What interests you about hands-on outdoor adventure, conservation, nature, and service activities?	English
NorCal Mars Society	How would an astronaut operate a rover on Mars?	English
PCAM HUEY Helicopter	How do the flight controls change the principles of flight?	English
Precision Crane	How tall is the crane? How can you use math to figure it out?	English
Robert Ferguson Observatory	Have you ever seen a sun spot or one of its prominences?	English
Sonoma Resource Conservation District	How do we grow healthy forests?	English, Spanish
UC Fire Science	How does fire behave with different fuels or slopes?	English

**Mexican Village**

American Chemical Society	How can you use chemistry to light up a LED?	English, Spanish
California Highway Patrol	How does CHP use science and technology to save lives?	English
City College of San Francisco Engineering Club	Which type of paper airplane flies better when launched by motorized paper airplane launchers?	English
Solar Schoolhouse (Rahus Institute)	How does shade or clouds affect performance of solar cell electrical circuits?	English
Sonoma County Library BiblioBus	What design is the most optimal to for a paper airplane to fly through the hoop?	English, Spanish

**Garden**

Children's Museum of Sonoma County	How high can you launch your rocket? Ignite the inner engineer inside of you to help improve the future of space flight!	English, Spanish
Laguna de Santa Rosa Foundation	How are the wetlands of the Laguna de Santa Rosa important?	English, Spanish
LandPaths	What do you notice? What do you wonder? What does it remind you of?	English
Mosquito Control District	How does understanding the life cycle of the mosquito help us in our efforts to stop them from spreading disease?	English
Our Water Our World	Which insects are beneficial in our garden?	English
STEMinism at Sonoma Academy	Is it a solid, liquid, or both? What's the science behind oobleck?	English
UC Davis Water Management	What is groundwater, and how does it differ from surface water?	English, Spanish
UC Sonoma Master Gardeners	How does life begin in a seed? What does it need to grow?	English

**Hall of Flowers**

501st Legion Golden Gate Garrison	How much do you like Star Wars?	English
Advanced Personalized Learning	How can you MAKE anything?	English
Buck Institute for Research on Aging	What would you do with an extra 20 years of healthy life?	English
Bureau of Land Management	How does Bureau of Land Management use science in stewarding lands held in trust for the public?	English
California State Parks	Have you ever seen or touched a wild animal?	English
Civil Air Patrol	What are the four forces of flight?	English
Dow Development Laboratories	How do chemists use science to innovate?	English
Girl Scouts of Northern California	Which leap bot design works best?	English
Keysight	How can we see all the invisible waves around us?	English
Maker Faire	How could I use an LED simple circuit in my creations?	English
Parker Electronic Motion and Controls	How do electric motors work?	English
Patelco Credit Union	Why is saving money important?	English, Spanish
PCAM Blue Angel F-4 Phantom Cockpit	How do the flight controls change the principles of flight?	English
Pepperwood	What wildlife do we share our community with?	English
Petaluma Wildlife Museum	What can we do to protect wildlife and wild places?	English
Rebel Legion Endor Base	How can you support science and join the Rebel Legion?	English
Sonoma County Ag + Open Space	What does land conservation mean to you?	English, Spanish
Sonoma County Beekeepers Association	Why are honey bees, and pollinators, important?	English
SSU Center for Environmental Inquiry & Bio Outreach	How do different habitats in our watershed support so many cool animals and plants?	English, Spanish
SSU Nursing Student Association	What is the best way to wash your hands in order to prevent the spread of germs?	English
Sonoma Water	What do bugs tell us about healthy water?	English
SRJC Biological Sciences & Biology Club	What do real lungs look like in action?	English
SRJC Chem Club	Why does color sometimes change in a chemical reaction?	English
SRJC Math Club	What is mathematics and how can it be used to have fun?	English, Spanish
SRJC Physics Club	How do magnets and currents interact to propel trains?	English
Stewards of the Coast and Redwoods	What can we learn from tree rings? What makes the redwoods and ocean special to protect?	English
Whiting-Turner Contracting Company	How do human activities shape our surroundings?	English
UC Liberty 4-H Club Beekeepers	What does a young person need to be a beekeeper?	English
UC The Lawrence Hall of Science	What will you discover about forces that shape our world?	English
US Air Force Academy	What is the future of aviation and space?	English
Veolia	How do microscopic organisms keep our water clean?	English
Viavi	How can we use science of light to create everyday products?	English
Xerces Society	Do the foods you eat require a pollinator? If so, which one?	English

**Rainy Day?** Find these outdoor exhibits in Finley Hall.