Science Resource Guide - Winter 2018

You’re Invited to the CRS
Field Trip for Teachers and Science Education Resource Fair
at Chabot Space and Science Center
Theme: Using Science to Support Learning in Language Arts and Math
Saturday, March 17, 2018, 9:00am—12:30pm

Are you looking for new field trip or in-class program opportunities for your class? Come join us for our 4th Annual Science Resource Fair co-hosted by Chabot Space and Science Center.

- Farmers market style event with two-dozen science education organizations on hand to talk about their resources for teachers. Discover field trips, professional development, in-class programs, lesson materials, and more!
- Free admission for teachers
- Informative and entertaining program
- Learn strategies for connecting science with language art & math
- Refreshments and Prizes

Schedule:
9:00am – 10:00am: Exclusive teachers-only time in the museum. Enjoy coffee and pastries while talking with science educators from dozens of organizations.
10:00am – 11:00am: Resource Fair continues, and Chabot Space and Science labs and exhibits open for exploration.
11:15:am – 12:30pm: Special Program in Theater. Science demonstrations, presentation on science-language arts connections through notebooks, Prizes, including a free Fall 2018 field trip to Chabot for one lucky teacher!

Please RSVP at
www.surveymonkey.com/r/FTFTMarch2018

12:30-1:30pm: Celebration Luncheon & Prize Delivery for Science Super Star Honorees (by invitation)

To Contact CRS - Call 510-527-5212 or Email CRS@crscience.org
Click & View: Brief Videos Show Shifts in Science Teaching

Transform: to undergo a change in form, appearance, or character.

As California schools ramp-up implementation of new science standards, elementary teachers are transforming what science teaching and learning looks like in their classrooms. The new standards, referred to as Next Generation Science Standards (NGSS), make a major shift from teaching facts "about" topics, to engaging students in asking questions and making meaning through investigation, discussion, and analysis.

What does NGSS teaching look like? Where can I find examples to try in my classroom? CRS is here to help teachers in the East Bay find the information, resources, and partners they need to successfully transform their science teaching. Wherever you are in your journey to implement these new standards, CRS has curated a set of standards-related resources and short videos to provide you with the "news you can use" at your fingertips.

To access all of the curated NGSS-related resources on our website, begin here: www.crscience.org/educators/standardssupport

Tip: Go to www.crscience.org/ResourceGuideWinter2018.pdf where all the hyperlinks will be active.

We’ve got answers to teachers’ most frequent questions:

What’s so different about the new standards?
The National Science Teachers’ Association explains the value of NGSS in this 3-minute video. (http://ngss.nsta.org/About.aspx)

I’ve gotten an overview, but I’m wondering what it looks like in practical terms. How does an NGSS science lesson differ from an “old” science lesson?
Some districts are already adopting new curriculum, but you don’t have to wait – you can begin teaching in the NGSS approach by making thoughtful changes to whatever lessons and teaching materials you already have access to. Here are some videos that provide examples of "Extreme Makeovers” that transform an “old” lesson into an NGSS lesson. Flower Parts (http://bit.ly/2C4yqgm) and Crater Lab (http://bit.ly/2Fcvz44)

What’s a "storyline” in science?
NGSS lessons are guided by a phenomenon- and question-driven "storyline". This short video explains the value of the NGSS storyline. (www.teachingchannel.org/videos/using-phenomena-achieve)

Phenomenon → Question → Investigation → Connections
First, students consider a phenomenon to which they can all relate (from personal experience, a lesson, a storybook, etc.) Then, students identify a valuable, testable question to ask as they try to explain and understand the phenomenon. Next, students conduct investigations and gather data to try to answer the question and build an explanation for the phenomenon. Teachers’ role is guiding students to "figure it out" through discussion, investigation, and building understanding. Finally, students relate their conclusions back to the original question and the bigger picture.

I’ve heard references to “the three dimensions” of the new standards. What does that mean?
The new standards are not just a list of facts kids should know; they are written as a series of performance expectations. To meet the performance expectations, students need to engage in three dimensions of learning: Scientific & Engineering Practices, Disciplinary Core Ideas, and Crosscutting Concepts. These three dimensions connect across all disciplines and span from Kindergarten through 12th grade, building in complexity and depth each year. Get an overview of how the three dimensions fit together, and then focus on specific elements as you progress through the school year.

- A nice overview of 3-dimensional learning (www.youtube.com/watch?v=XJBN6BX04Ms)
- CRS has a webpage devoted to each dimension, where you can select short videos and lesson examples for each specific practice, cross cutting concept, or core idea.

(Continued on page 4)
Celebrating Excellence in Science Teaching

Congratulations to the 2018 CRS Science Super Stars! This year 76 teachers demonstrated excellence in elementary science teaching by meeting the best practices outlined in the CRS Science Super Star Challenge. An impressive 38 teachers went even further, reflecting on the significant ways they have transformed science learning in their classrooms as Trailblazers.

These teachers exemplify a dedication to ensuring their students have a range of meaningful opportunities to investigate and discover through active learning. CRS will honor these teachers with a special luncheon celebration on March 17, following our Field Trip for Teachers Science Resource Fair. They will each receive prizes and recognition for their efforts to bring exciting, high-quality science learning to their students. See the full list of Science Super Stars on page 5.

Be inspired by the insights, photos, and examples of student work shared by these teachers, on the CRS website: www.crscience.org/educators/SSS2018Quotes

A sampler of observations, tips and strategies from some of this year’s honorees:

The NGSS investigations are more demanding but more engaging as well. [Students’] conversations are more thoughtful...Make the most of the investigation times [and] try to integrate other subject areas. Use science text as short read-alouds to encourage more discussions and model deeper thinking while you have their attention. – Nikita Gibbs-Nolen

I noticed that this year I have more English Language Learners... (so) I've consciously started using more sentence frame prompts during “science talks,” using more pictures, diagrams and models and having them look for patterns and recording their data. By consciously using the NGSS crosscutting concepts, I noticed that even my struggling EL students are getting a much deeper understanding of what they are learning.

– Janet Lau

Students collaborate in small groups to solve real problems, experiment and discuss... This teaches them to learn from others. Their excitement is contagious. They love science investigations.

– Erika Guerrero

Students are really enjoying engineering problems. Focusing on real-world problems, as scientists do, has really motivated students. They are not just learning science facts in isolation, but they are trying to solve a real-world issue. Students are willing to take more risks; they test out different ideas and revise their ideas based on their observations to optimize the models.

– Ann Park

As I change my practice, students become more independent learners with skills to learn and explore instead of facts memorized. Students are producing more coherent writing. Take the time to use the investigation as much as possible. Use the content for ELD, math, and ELA. Students enjoy the science content which motivates them in other subject areas.

– Lindsay Daseler
I’ve heard that the topics at my grade level are changing. What are the topics for my grade level?

CRS has put together an at-a-glance chart to show you the major topic shifts from the old California standards to the new NGSS standards.

(Pictured to the right. In full color online.)
www.crscience.org/pdf/TransitionOldCAtoNGSS.pdf

It’s so difficult to find time for science. Can I connect it with language arts or math?

The new standards are actually designed to connect with California’s math and language arts standards, providing opportunities for students to engage in critical thinking, communication, and evaluating information. There are lots of resources designed to help teachers build strong across-the-curriculum connections. This short video has a great example of how to integrate NGSS language and concepts.

www.teachingchannel.org/videos/claims-evidence-science-lesson-achieve

Get outside and explore as much as possible. Science lends to real life and cross curricular so well. Incorporate nature walks, writing, reading and social studies. —Meghan Matsuoka

(Science Super Stars continued from page 3)

[1 post] sentence scaffolding for writing and speaking [such as]:

When Scientist share their own ideas they may say:

I Observed_______                   I noticed_____
I wonder______        I think _____  because_______
My data shows___________

... Students have silent signals that they use to communicate during a science talk. Signals include: agreement signal, disagreement signal, connection, invite a friend to speak up, invite a friend to step back. —Sara Golden

Science journaling is a MUST! —Carrie Peters

<table>
<thead>
<tr>
<th>Grade</th>
<th>&quot;New&quot; NGSS Topics</th>
<th>&quot;Out&quot; CA Science Standards Topics</th>
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</thead>
</table>
| Kindergarten | - Weather & Climate (ESS)  
- Effects of Sunlight on Earth’s Surface (ESS)  
- Plants & Animals can Change their Environment (ESS)  
- Human Impact on Environment (ESS)  
- Force & Motion (PS) | - Landforms (ESS)  
- Weather & Seasons (ESS) (K, 1, 3, 4)  
- Resource Use & Conservation (ESS) (K, 4, 9)  
- Animal & Plant Parts (3, 4)  
- Describing Properties of Materials (PS) (2, 6) |
| Grade 1 | - Waves; Light & Sound (PS)  
- Patterns in Sun, Moon, and Stars (ESS)  
- Seasons; Relative Length of Year (ESS)  
- Variation & Influence of Tools (LS)  
- How Parents Help Children Succeed (LS)  
- How Plants & Animals Need Water (LS)  
- My Data Shows___________ | - Measuring Weather Observations (ESS)  
- Sun, Moon, and Stars (ESS)  
- Plants & Animals (ESS)  
- Properties of Solids/Liquids/Gases (PS)  
- Changing Properties of Molding/Modeling (PS) |
| Grade 2 | - Describe & Identify Properties of Materials (P-S)  
- Heat and Cooling Substances may be solids, liquids, or gases (PS)  
- Identify Where Water is Found on Earth (ESS)  
- Identifying Landforms (ESS)  
-How Materials that Make the Earth (ESS)  
- Diversity of Life in Different Habitats (ESS)  
- Plant Growth Investigations (LS)  
- Monitoring Seed Dispersal & Pollination (LS) | - Rocks; Sand and Soil (ESS)  
- Properties of Solids/Liquids/Gases (PS)  
- Plant & Animal Life Cycles/Reproduction (LS)  
- Interactions Climate/Weather & Variation (LS)  
- Force and Motion (PS) (K, 3)  
- Simple Tools and Machines (PS)  
- Data (PS) |
| Grade 3 | - Force & Matter (PS)  
- Electricity & Magnetism (ESS)  
- Stars and Visually (ESS)  
- Climates in Different Regions of the World (ESS)  
- Interactions Relationships & Ecosystems (LS)  
- Pets: Provide Evidence of Past Life (LS)  
- Plants & Animal Life Cycles/Reproduction (LS)  
- Interactions Climate/Weather & Variation (LS)  
- Adaptation: Change over Time (LS) | - Six Patterns in the Sky (ESS) (1, 5)  
- Patterns of the Moon (ESS)  
- Earth and Moon Cycles (ESS)  
- Adaptations Change over Time (LS)  
- Studying and Extending (LS) (K, 5)  
- Cycles (PS)  
- States of Matter (PS)  
- Mixtures and Solutions (PS)  
- All Matter is Atoms (PS)  
- Light and Vision (PS) |
| Grade 4 | - Energy, Forms, Storage, Conversion & Transfer (PS)  
- Properties of Rides (PS)  
- Light & Vision (PS)  
- Electrons in Transition Materials (PS)  
- Internal/External Relationships & Ecosystems (LS)  
- Rock Formations & Fossilization (PS)  
- Erosion & Weathering (ESS)  
- Analysing and Interpreting Maps (LS)  
- Impact of Earth Resources on Humans (ESS)  
- The Rock Cycle (ESS)  
- Properties of Rocks & Minerals (ESS)  
- Changing Earth Surface (ESS) (2, 4)  
- Rock Cycles and Waves (LS)  
- Ecotypes (LS) (3, 5)  
- Rivers (PS)  
- Magnets, Compasses, Electromagnets (PS)  
- Using Work with Electrical Energy (ESS) | - Photosynthesis (ESS)  
- Factors that Affect Weather (ESS)  
- Climbatry (ESS)  
- Solar System (ESS)  
- Optical & Heat Internal Processes (PS)  
- Atomic, Elements, and Periodic Table (PS)  
- Separating Materials and Identifying Compounds (PS)  
- Properties of Common Molecules (PS) |
Congratulations to all of this year’s Science Super Star honorees!

They have demonstrated how they are bringing meaningful science learning experiences to their students. The "Trailblazers" and "Trailblazer-Specialists" have demonstrated how they are significantly transforming their teaching and reflection on how that is impacting student learning. Teachers who have earned recognition for more than one year have been designated with an * for every year as an honoree.

### Berkeley Unified School District

**Cragmont Elementary**  
Chereen Fillingim-Selk ****** - Trailblazer-Specialist  
Eleanor Tiglaq ******  
Meridith Aki *** - Trailblazer  
Pamela Diebel *** - Trailblazer  
Bobbye Smith *** - Trailblazer  
Michelle Johnson *** - Trailblazer  
Mollie Bluestein ***  
Nicholas Williams **  
Kellie McElhaney **

**Jefferson Elementary**  
Bethany Lourie *** - Trailblazer-Specialist

**John Muir Elementary**  
Carrie Johnston ** - Trailblazer  
Heather Olson-Garcia

**Malcolm X Elementary**  
Debra Hill ** - Trailblazer-Specialist

### Castro Valley Unified School District

**Palomares Elementary**  
Meredith Evans - Trailblazer

### Fremont Unified School District

**Brookvale Elementary**  
Connie Bi **** - Trailblazer

### West Contra Costa Unified School District

**Ellerhorst Elementary**  
Denise Abersold *** - Trailblazer

### Berkeley Arts Magnet

Carrie Peters ** - Trailblazer-Specialist  
Suzanne Wright **

### Oakland Unified School District

**Allendale Elementary**  
Meaghan Matsuoka ****** - Trailblazer  
Alma Buena Vista **  
Sara Salvaggio **  
Mika Zelie

**Bridges Academy at Melrose**  
Ann Park ****** - Trailblazer  
Gloria Garcia *****  
Aiko Keen **

**Chabot Elementary**  
Julia Ward ****** - Trailblazer-Specialist  
Laura Shield ******  
Miranda Romo ******  
Leslie Rychel ******  
Darlene Perdisatt ******  
Deborah Flanagan ****** - Trailblazer  
Rebecca Dunning **  
Kelleth Chin **  
Danielle Todaro

**Cleveland Elementary**  
Janet Lau *** - Trailblazer

**Encompass Academy**  
Liz Cramer ****** - Trailblazer  
Trina Jones ****

### International Community School

Michaela Morse ****** - Trailblazer  
Lindsay Daseler ***** - Trailblazer  
Alejandro Estrada **** - Trailblazer

### Laurel Elementary

Lena Why ****** - Trailblazer

### Learning Without Limits Charter School

Duffy Ross *** - Trailblazer  
Eva Schloemann

### Lincoln Elementary

Maria Motonaga *****  
Robert Fong ****  
Brooke Guiney **

### Markham Elementary

Elizabeth Cooke ****-Trailblazer-Specialist  
Nikita Gibbs **** - Trailblazer  
Lynne Martin **

### Lafayette Campus of Martin Luther King, Jr. Elementary

De'Shawnna Riley  
Tate Jawdat  
Rebekah Rylant  
Megan Tharp

### Martin Luther King, Jr. Elementary

Arvella Hayden ***  
Pali Ouye **  
Judy Washington **  
Maketa Daniels  
Michelle Williams  
Marta Sato

### New Highland Academy

Tracy Dordell ****** - Trailblazer  
Emily Blossom *** - Trailblazer  
Erika Guerrero ** - Trailblazer  
Carrie Anderson ****  
Melissa Frost **

### Prescott Elementary

Constance Zunino ****** - Trailblazer  
Lorraine Mann ****** - Trailblazer  
Paula McGlone ** - Trailblazer

### Think College Now

Sarah Golden ** - Trailblazer-Specialist

### Thornhill Elementary

Bonnie Forbes **  
Ellyn Holman
**Need Planning Help? Ask CRS!**

Did you know that CRS is here to help you find science resources for your classroom?

- Looking for just the right field trip or in-class program?
- Want help finding a grant to fund microscopes or other science equipment?
- Interested in finding online resources for you or your students?
- Want to bounce lesson ideas off of someone?
- Trying to figure out where do get butterflies or PH paper or a recipe for "slime"?

**We can help with that. All you need to do is ask! Pick the mode that is easiest for you**

Fill out our online form. This green button is on every page of our website. [www.crscience.org/educators/requestform/](http://www.crscience.org/educators/requestform/)

Email us at CRS@crscience.org

Call at 510-527-5212

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**Don’t miss out on invitations for BASIS scientists in your classroom or our monthly e-NewsBlasts**

We send out a monthly e-NewsBlast and invitations for BASIS scientist volunteers via email. If you aren’t receiving these emails, it means one of two things:

1. We don’t have an active email for you—Please email us at CRS@crscience.org to give us your best email address.
2. Our emails may be hiding in your junk mail folder. Add Community_resources_for_science@mail.vresp.com to your contact list.
Program Deadlines

March 2018

3/5/2018  Summer PD Registrations Closes  Monterey Bay Aquarium
Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th
http://www.montereybayaquarium.org/education/teacher-professional-development

3/11/2018  The Edible Schoolyard Academy - Deadline to apply  Edible Schoolyard
Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://edibleschoolyard.org/training%

3/16/2018  2018 Summer Teacher Institute - Applications Deadline  Exploratorium
Grades:  6th;7th;8th;9th;10th;11th;12th
https://www.exploratorium.edu/education/teacher-institute/summer

April 2018

4/15/2018  Deadline to schedule June-July Grade 6-12 Tours  LBNLWorkforce Development & Education
Grades:  6th;7th;8th;9th;10th;11th;12th
http://www2.lbl.gov/Education/CSEE/Programs/BLEND/index.html

4/19/2018  Free WebChat: Asteroids, Comets, and Meteors - Oh My!  California Academy of Sciences
Grades:  3rd;4th;5th;6th;7th;8th
https://www.calacademy.org/educators/special-live-events

4/20/2018  Free WebChat: Make Earth Day Every Day  California Academy of Sciences
Grades:  4th;5th;6th;7th;8th
https://www.calacademy.org/educators/special-live-events

4/23/2018  Free WebChat: Make Earth Day Every Day  California Academy of Sciences
Grades:  4th;5th;6th;7th;8th
https://www.calacademy.org/educators/special-live-events

Grades:  K;1st;2nd
https://www.calacademy.org/educators/special-live-events

June 2018

6/1/2018  Ocean Ambassadors Application Deadline  The Marine Mammal Center
Grades:  6th;7th;8th
http://www.marinemammalcenter.org/education/school-aged-programs-tours/ocean-ambassadors/

6/30/2018  Deadline to schedule August-December Grade 6-12 Tours  LBNLWorkforce Development & Education
Grades:  6th;7th;8th;9th;10th;11th;12th
http://www2.lbl.gov/Education/CSEE/Programs/BLEND/index.html

August 2018

8/1/2018  Registration Open for 2018-19 school year  Kids for the Bay
Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th
http://kidsforthebay.org/programs/

8/6/2018  Lottery Deadline for Fall Fieldtrips  East Bay Regional Park District
Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://www.ebparks.org/activities/educators/trips

We're here to help you find the science resources you're looking for. Email us at CRS@crscience.org
Teacher Grants: Specific Deadlines

Keep turning to the back of these pages to find grants with ongoing or rolling deadlines

March 2018

3/1/2018  Presidential Innovation Award for Environmental Educators  US EPA
http://go.usa.gov/xkgTS

$2500 for Teachers & $2500 for School
Recognizes outstanding K-12 teachers who employ innovative approaches to environmental education and use the environment as a context for learning for their students. Up to two teachers from each of EPA's 10 regions, from different states, will be selected to receive this award.

3/1/2018  AAE Classroom Grant  Association of American Educators
http://www.aateachers.org/index.php/classroom-grant-application

$500
Classroom grants can be used for a variety of projects and materials. Funds must be used within one year of the application deadline. Awards are competitive. AAE members receive additional weight in the scoring rubric.

3/2/2018  Waste Reduction Grant  Altamont Education Advisory Board
http://www.altamonteab.org/

$500-$3,000 or $20,000 to 50,000
The Education Advisory Board promotes waste prevention and recycling, job training and education through:
1. Waste prevention and recycling programs that serve schools (recycling supplies, program materials and other education activities such as field trips); 2. Community education through waste prevention and recycling education programs. The Educational Advisory Board offers mini-grants, ranging from $500-$3,000 each, and project grants, which average approximately $20,000 each, with a maximum request of $50,000. Limited to individuals and organizations serving citizens of Alameda County and the cities of San Ramon and San Francisco.

3/15/2018  Braitmayer Foundation $10,000 Grant  The Braitmayer Foundation
http://www.braitmayerfoundation.org/how-to-apply/

$10,000
Curricular and school reform initiatives; and professional development opportunities for teachers, particularly those that encourage people of high ability and diverse background to enter and remain in K-12 teaching.

3/15/2018  Environment Education (EE) Grants  US EPA Environmental Education
http://www2.epa.gov/education/environmental-education-ee-grants

$10,000-25,000
To support environmental education projects that promote environmental stewardship and help develop aware and responsible students, teachers, and citizens. This grant program provides financial support to seed innovative projects that design, demonstrate, or disseminate environmental education practices, methods, or techniques as described in this notice.

3/17/2018  FREE lab supplies - Oakland  Bio-Link Depot
http://biolinkdepot.org/index.php/get-supplies/

FREE 10AM-2 PM - Lab equipment give away for middle and high schools. Lots of great equipment, but you need to follow the rules. Don't forget to read their website.

3/19/2018  Roots & Shoots Community Campaign Mini-Grants  Roots and Shoots
http://www.rootsandshoots.org/minigrant

$200
Roots & Shoots want to support the work that you and your "young Jane Goodalls" are doing in your community. U.S. educators are invited to apply for a mini-grant to start, support, or celebrate their service campaigns.

3/22/2018  Green Difference Awards  Project Green Schools
http://projectgreenschools.org/project-green-schools-newsletter/

Approximately 25 awards each year in the following areas: Outstanding Green Superintendent/Principal, Outstanding Green Education/Program Director, Outstanding Green Student [Elementary/Middle/High], Outstanding School-led Project in Sports, Outstanding School-led Project in Energy and more.

April 2018

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Printed: 2/21/2018  Teacher Grants
4/1/2018 Early Childhood Grants
http://www.frd-foundation.org/apply05.html

The foundation gives grants only to programs that deal directly with early childhood education. Within that context, support is given for preschool, elementary, and other education; conservation and environmental protection.

4/15/2018 Teacher Development Grants
http://www.mccartheydressman.org/teacher.html

Provides funding to individuals or small teams of teachers in the formation and implementation of groundbreaking k-12 classroom instruction. The grants provide opportunities for teachers to integrate fresh strategies that encourage critical inquiry and to observe their effects on students.

4/16/2018 Carton 2 Garden
http://carton2garden.com/

Show your students’ creativity by re-purposing milk and juice cartons from your school cafeteria to either build or enhance your school garden. Educators can engage students in a hands-on experience creating teachable moments on environmental stewardship, sustainable packaging and healthy living. The best use of cartons in a school garden gives your school the chance to win one of 14 prizes with a grand prize valued at $5,000.

4/18/2018 Discovery Education 3M Young Scientist Challenge
https://www.youngscientistlab.com/challenge

Students must create a 1-2 minute video describing a new innovation or solution that could solve or impact an everyday problem related to how we live, how we work or how we play. One student will win the coveted title of "America's Top Young Scientist."

4/30/2018 SeaWorld & Busch Gardens Conservation Fund
http://www.swbg-conservationfund.org/grantInfo.htm

Conservation Education funding for Nature Deficit Disorder: Programs designed to encourage youth to spend more time outdoors connecting with nature. This includes education programs for youth who live in biodiverse range countries to understand the value of nature and the mechanisms for sustainability.

4/30/2018 Environmental Education Grants
http://www.thelawrencefoundation.org/grants/grant-guidelines/

The foundation is focused on making grants to support environmental, education, human services and other causes although our interests are fairly diverse and may lead us into other areas on an occasional basis.

May 2018

5/1/2018 Ocean Guardian School Grant
http://sanctuaries.noaa.gov/education/ocean_guardian/welcome.html

Application forms will be posted on the website by April 1, 2017. Applications are reviewed based on five criteria, each criteria weighted equally: a. The number of classes and grades involved; b. The impact of the project on the school and/or the impact of the project on the community; c. The school is an underserved/underrepresented school; d. The outreach plan for communicating to others about your project and its goals; e. The connection of the project to the health and conservation of the watershed, ocean and/or national marine sanctuary.

5/1/2018 American Honda Foundation Grant - Returning Fundees
http://www.honda.com/community/applying-for-a-grant

Returning Fundees only (received grant in last 10 years) - Supports youth education with a specific focus on the STEM (science, technology, engineering and mathematics) subjects in addition to the environment.

5/1/2018 BirdSleuth National Challenge
http://www.birdsleuth.org/national-challenge/

Have you ever watched a chickadee grab a seed from a feeder and fly off to eat it? Or noticed a sparrow scrounging the ground for fallen seed? Bird feeding behaviors have inspired the National Challenge! Sign up, conduct your investigation, and submit your report by May 1st, 2018, and you'll be entered to win one of our great prizes. The Grand Prize winning student, group, or classroom will get a year's supply of bird seed!

5/1/2018 Elementary Teacher Award
https://www.paemst.org/home/view

Alternate years for elementary and secondary. The Presidential Awards for Mathematics and Science Teaching were established in 1983 by an Act of Congress and are administered for the White House by the National Science Foundation. Each year the program recognizes outstanding mathematics and science teachers from across the United States and four U.S. jurisdictions for their contributions in the classroom and to their profession. In addition to honoring individual achievement, the goal of the Awards is to expand and exemplify the definition of excellent science and mathematics teaching. Awardees serve as models for their colleagues, inspirations to their communities, and leaders in the improvement of mathematics and science education.

We're here to help you find the science resources you're looking for. Email us at CRS@crscience.org

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<thead>
<tr>
<th>Date</th>
<th>Grant/Funding Source</th>
<th>Description</th>
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<tr>
<td>5/1/2018</td>
<td>Toshiba America Foundation</td>
<td>Toshiba America Foundation is accepting applications from teachers who are passionate about making science and mathematics more engaging for their students. Do you have a wish list of instructional equipment that will make learning more exciting for your students?</td>
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<td>5/8/2018</td>
<td>California Science Teachers Association</td>
<td>Various Grants and Recognition</td>
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<td>5/10/2018</td>
<td>Save the Redwoods League</td>
<td>Reading the Redwoods</td>
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<td>Weekly and grand prizes</td>
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<td>5/10/2018</td>
<td>The Max and Victoria Dreyfus Foundation</td>
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<td>5/15/2018</td>
<td>California Foundation for Agriculture in the Classroom</td>
<td>Future Organic Farmer Grant Fund</td>
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**June 2018**

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<tbody>
<tr>
<td>6/1/2018</td>
<td>Association for Science Teacher Education</td>
<td>Outstanding Science Teacher Educator of the Year</td>
</tr>
<tr>
<td></td>
<td></td>
<td>the purpose of these two awards (Level One: Ten or Fewer Years in Science Education, and Level Two: 10+ Years of Career) is to recognize the individual achievements and contributions of ASTE members in their first ten years of career (and those beyond ten years). Each Award recipient receives a plaque, a cash award from Carolina Biological Supply Company, and a tribute in the awards issue of the Journal of Science Teacher Education.</td>
</tr>
<tr>
<td>6/22/2018</td>
<td>Crayola</td>
<td>Champion Creatively Alive Children Grant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$2,500 and $100 in Crayola products</td>
</tr>
</tbody>
</table>

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Teacher Grants: Rolling or Continuous Deadlines

<table>
<thead>
<tr>
<th>Teacher wish list</th>
<th>Adopt-A-Classroom Grants</th>
<th>Adopt-A-Classroom</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Register your classroom online. This site pairs you with people who want to give money to your classroom to purchase supplies. Is not project based.</td>
<td><a href="http://www.adoptaclassroom.org">http://www.adoptaclassroom.org</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FREE field trip to Alcatraz</th>
<th>Alcatraz School Access Program</th>
<th>Alcatraz Island</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><a href="http://www.nps.gov/alca/planyourvisit/school-access-program.htm">http://www.nps.gov/alca/planyourvisit/school-access-program.htm</a></td>
<td><a href="http://www.alcatrazisland.org">http://www.alcatrazisland.org</a></td>
</tr>
<tr>
<td></td>
<td>Public Schools with 60%+ of students receive free and reduced lunches or Private Schools where 60% of students receive scholarships are eligible for free tickets for visits to Alcatraz between January 3 - March 15. November 1-15, and December 1-15.</td>
<td></td>
</tr>
<tr>
<td>$10,000+</td>
<td>Amgen Foundation Grant</td>
<td>Amgen Foundation</td>
</tr>
<tr>
<td></td>
<td>The areas given priority consideration within science education are: Teacher quality and professional development in math and science, and Pivotal hands-on science experience for students.</td>
<td></td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Program Scholarships</th>
<th>Program scholarships</th>
<th>Bay Area Discovery Museum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><a href="http://bayareadiscoverymuseum.org/school-visit/scholarships/">http://bayareadiscoverymuseum.org/school-visit/scholarships/</a></td>
<td><a href="http://bayareadiscoverymuseum.org/">http://bayareadiscoverymuseum.org/</a></td>
</tr>
<tr>
<td></td>
<td>Scholarships for school visit programs. For elementary schools serving more than 40% of students who qualify for free and reduced lunch and preschools serving more than 40% of families through child-care subsidies.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Approximate value - $1000</th>
<th>Amy Chamberlain Scholarship Fund</th>
<th>Bay Area Wilderness Training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><a href="http://www.bawt.org/programs/funding/scholarships/">http://www.bawt.org/programs/funding/scholarships/</a></td>
<td><a href="http://www.bawt.org/programs/funding/scholarships/">http://www.bawt.org/programs/funding/scholarships/</a></td>
</tr>
<tr>
<td></td>
<td>Each scholarship provides full tuition to BAWT’s Wilderness Leadership Training (WLT), as well as post-course support. Must apply one month prior to the class you desire to take.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Varies</th>
<th>Friends &amp; Family Grants - BERKELEY Schools only</th>
<th>Berkeley Public Schools Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>This crowd-funding platform allows teachers to submit grant applications to fund new projects, materials, or equipment anytime throughout the year. Anyone can donate to a grant, and the site is searchable by teacher, school, and subject area. Similar to DonorsChoose but exclusively for Berkeley teachers.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>discount bus rental rate</th>
<th>Black Tie Community Bus</th>
<th>Black Tie Transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bus is offered to non-profit organizations and to schools to transport children ages K-12 for school outings at a discounted rate to those who apply in advance and meet the requirements of the application process.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>$2500</th>
<th>California Casualty Academic Award</th>
<th>California Casualty</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Enter to win $2500 to cover your out of pocket expenses</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>$1500 plus design services</th>
<th>Native Garden Design Grants</th>
<th>California Native Garden Foundation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Support include garden design services, in-kind donations of plants and landscape materials, volunteer assistance, and direct financial assistance. A typical grant cycle is about 5 months. Grant amounts are limited to $1,000 for in-kind assistance, $500 in direct cash assistance, and $5,000 for design services.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>50% and 100% field trip discounts</th>
<th>Free Field Trips</th>
<th>Children’s Creativity Museum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reduced-rated and fee-waived programs for CA Title 1 and qualifying schools are now available.</td>
<td></td>
</tr>
</tbody>
</table>

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Computers for Learning

Schools register and request equipment on the Computers for Learning web site. Federal agencies match their surplus equipment to schools with those needs. Computers and equipment are not refurbished by the government before being shipped to schools, nor are they covered by warranty.

Digital Wish List

http://www.digitalwish.com/dw/digitalwish/home

Teachers to create a technology wish list. Online crowd sourcings provides funding

$100-1000 Classroom Wishlist

http://www.donorschoose.org/teachers

 Teachers describe classroom needs. Contributors decide where they want to put their money. Many corporations including Disney, Chevron, and Horace Mann are now using DonorsChoose.org as the way they give away money to education. Once funded, resources sent directly to your classroom.

East Bay Children’s Book Project

http://www.eastbaychildrensbookproject.org/

3:30PM – 6:00PM Every Tuesday and Thursday. Limits of the number of books you can have change from day to day. In the range of 20-30. The East Bay Children’s Book Project helps build literacy by putting books into the hands of children who have little or no access to them. Working through individuals and organizations who help children in need,

East Bay Regional Park District

http://www.ebparks.org/parks/publictransit/parks-express

Discount buses ($110) for fieldtrips to East Bay Regional Parks. Schools must have at least 50% of students in Free or Reduced Lunch Program. 40 passengers minimum. They start making assignments in December for the coming year. Apply ASAP even for programs in fall. Need not have naturalist program pre-arranged.

Free Admission to CA Title 1 Schools

http://www.exploratorium.edu/visit/field-trips

Free admission to provided to all CA Title 1 schools.

Education Grant Database

http://www.grantwrangler.com/

Check out this website for all types of grants for classrooms

Free Monday Field Trips and Transportation Grants

http://www.hiller.org/mondays_at_the_museum.shtml

No charge field trips during Mondays at the Museum, with transportation reimbursement also available for qualified low-income schools (at least 40% of students qualified to receive free or reduced price meals).

$250 to $1,000 Youth Microgrant Program

http://karmaforcara.org/get-involved/apply-for-a-microgrant/

Kids 18 and under to apply for funds between $250 and $1,000 to complete service projects in their communities. Whether it is turning a vacant lot into a community garden, rebuilding a school playground or helping senior citizens get their homes ready for winter, we want to hear what project you’re passionate about.

$1000-$5000 Education Grants

http://www.kindermorgan.com/community/km_foundation_guidelines.cfm

Due the 10th of each month. Academic programs, including tutoring; Arts education programs; Environmental education programs that work with local schools and meet curriculum standards

Bus Transportation Scholarship - Oakland & Richmond

http://museumca.org/school-visits

A limited number of scholarships are available and are awarded based on these criteria: • School must be in Oakland Unified School District (includes charter schools) or a Richmond public school. • At least 70% of students at the school must qualify for the free or reduced lunch program. • One scholarship per teacher each school year. • Awarded on a first-come, first-served basis. • Teachers will contact the bus company directly to book the transportation, using the code as authorization provided by the museum. The Museum will be billed for the bus.

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Printed: 2/21/2018

Teacher Grants - Rolling Deadlines
<table>
<thead>
<tr>
<th>Discounted admission to Oakland Museum</th>
<th>Program Scholarship for Oakland</th>
<th>Oakland Museum of California</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong><a href="http://museumca.org/school-visits">http://museumca.org/school-visits</a></strong></td>
<td>A limited number of scholarships are available and are awarded based on these criteria: * Scholarships are available for programs at the Museum, but not for docent-led or self-guided tours. * Your school must be in the Oakland Unified School District (includes charter schools). * At least 70% of students at the school must qualify for the free or reduced lunch program. * Qualified applicants may receive up to a 50% reduction of the program fee. * One scholarship per teacher each school year. * Awarded on a first-come, first-served basis.</td>
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<table>
<thead>
<tr>
<th>Discounted or free programs</th>
<th>Zoo-to-Community Discounts for Programs</th>
<th>Oakland Zoo</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong><a href="http://www.oaklandzoo.org/Zoo_to_Community.php">http://www.oaklandzoo.org/Zoo_to_Community.php</a></strong></td>
<td>Oakland Zoo provides free and reduced rate science education programs through its Zoo-to-Community initiative for children and youth attending East Bay schools with significant numbers of Title 1 students. Applications are processed on a first come first serve basis for programs from September to Feb 29th. Good for ZooSchool and Wildlife Assembly programs at the zoo and ZooMobile programs at your school.</td>
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<table>
<thead>
<tr>
<th>$300-$1000</th>
<th>First Robotics Grants</th>
<th>PG&amp;E</th>
</tr>
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<tbody>
<tr>
<td><strong><a href="https://www.pge.com/en_US/residential/in-your-community/education-programs/grants-and-scholarships/first-robotics">https://www.pge.com/en_US/residential/in-your-community/education-programs/grants-and-scholarships/first-robotics</a></strong></td>
<td>The PG&amp;E FIRST® Robotics program provides school and community-based student teams with funding to design and build fully functioning robots and take part in robotics competitions. Schools in the PG&amp;E service area are invited to apply now (grants are provided on a first-come, first-serve basis)</td>
<td></td>
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<thead>
<tr>
<th>up to $150</th>
<th>Classroom Grant</th>
<th>Pets in the Classroom</th>
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</thead>
<tbody>
<tr>
<td><strong><a href="http://www.petsintheclassroom.org/teachers/">http://www.petsintheclassroom.org/teachers/</a></strong></td>
<td>Offered to Pre-K through 8th grade classes. Supports pets or aquariums in the classroom for the purposes of teaching children to bond with and care for their pets responsibly. The welfare of the small animals involved is of paramount importance. These grants must not be used for the purposes of research or experiments of any kind. Grant can be used to purchase of animals or to cover food and material costs</td>
<td></td>
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<thead>
<tr>
<th>$500</th>
<th>Environmental Sciences Resource Grants</th>
<th>Philanthropic Ventures Foundation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong><a href="http://www.venturesfoundation.org/programs/teacher-grants/">http://www.venturesfoundation.org/programs/teacher-grants/</a></strong></td>
<td>Grants of up to $500 will be awarded to teachers (K-12 teachers working at a low-income public school in Alameda County) to enhance classroom environmental science curriculum through projects, resources, field trips, and professional development. Examples include: * Field trip related to the study of wetland and creek restoration and water conservation * In-classroom presentations about endangered species by local wildlife experts * Gardening supplies to build a wildlife habitat * Adopt-a-Beehive program for a project-based learning activity about bees Materials for a school-wide climate stewardship project to mitigate the effects of climate change Limit 2 grants per school</td>
<td></td>
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<tr>
<th>Up to $2500</th>
<th>Classroom Grants</th>
<th>Philanthropic Ventures Foundation</th>
</tr>
</thead>
<tbody>
<tr>
<td>easy grant process</td>
<td><strong><a href="http://www.venturesfoundation.org/programs/teacher-grants/">http://www.venturesfoundation.org/programs/teacher-grants/</a></strong></td>
<td>A variety of classrooms grants generally become available at the beginning of the school year. The application is one simple faxed page. You receive notification within days. Funding runs out quickly, so act quickly. Check back often as sometimes new funding sources become available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>$1000 for fieldtrips</th>
<th>Excursion Grant - Alameda, San Mateo &amp; SF Counties</th>
<th>Philanthropic Ventures Foundation</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>discounted overnight programs</th>
<th>Financial Assistance Available for Qualifying Schools</th>
<th>Point Bonita YMCA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong><a href="http://www.pointbonitaymca.org">www.pointbonitaymca.org</a></strong></td>
<td>Spaces still available for 2017-18 school year</td>
<td></td>
</tr>
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<thead>
<tr>
<th>bus funding</th>
<th>Bus Funding for Oakland Unified Schools</th>
<th>Stepping Out Stepping In</th>
</tr>
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<tbody>
<tr>
<td><strong><a href="http://www.steppingoutsteppingin.org/school-programs.html">http://www.steppingoutsteppingin.org/school-programs.html</a></strong></td>
<td>All OUSD schools are now eligible for bus funding. Bus funding is limited to one bus per school teacher a year. Apply early! Title 1 Schools or schools that have over 75% Free and Reduced lunch program are eligible for full sponsorship by the Port of Oakland.</td>
<td></td>
</tr>
</tbody>
</table>

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$1000 to $5,000  Mini Grants - Waste Reduction
StopWaste.org
http://www.stopwaste.org/recycling/business/general-mini-grant-program
StopWaste.Org looks for innovative projects which will increase individual and community involvement in source reduction efforts, decrease the amount of waste generated and sent to the County's landfills, and encourage the development, marketing and use of recycled products.

Varies  Grants for Teachers
Teacher Planet
http://grants4teachers.com/
Database of education grants of all types and amounts.

12-20 trees plus planting and more  Fruit Tree Orchard for Your School
The Fruit Tree Planting Foundation
http://www.ftpf.org/apply.htm
Program brings fruit tree orchards to schoolyards, so students can make a positive environmental impact at their school, while creating a source of tasty snacks for decades to come. Orchard donations involve a 12-20 tree minimum (we do not currently offer single trees) to public or nonprofit schools. The trees, materials, orchard installation design work, and onsite environmental curriculum with students are all donated, free of charge for the benefit of the school and its students.

varies  Healthy Environments grant
The Kresge Foundation
http://kresge.org/programs/health/healthy-environments
The healthy food initiative invests in efforts to improve food-system policies and practices, especially those that provide better access to fruits, vegetables and other healthful foods and that reduce the emphasis on products without nutritional benefits in low-income neighborhoods.

$5000 of less  Mini-Grants For Grades 6 - 12
Toshiba America Foundation
http://www.toshiba.com/taf/612.jsp
Wanted: Classroom Innovators! Toshiba America Foundation is accepting applications from teachers who are passionate about making science and mathematics more engaging for their students. Do you have a wish list of instructional equipment that will make learning more exciting for your students?

Up to $8000  School Yard Habitats Grants
US Fish & Wildlife Services
https://www.fws.gov/sacramento/CP/Schoolyard-Habitat/cp_schoolyard-habitat-prog.htm
Program helps create wildlife habitat at schools. Typical projects include: wetlands, meadows, forests and variations based on specific eco-regions. Many projects are planned through multiple phases and change over time as children from various classes build upon the existing work of past students. Provides technical assistance and project guidance, teacher training, develop written materials.

$5000  Education Grants
Wells Fargo Foundation
https://www.wellsfargo.com/about/charitable/ca_guidelines
Rolling Deadline. San Francisco Bay Region accepts grant proposals from January through October 31st Supports educational programs promoting academic achievement by low- to moderate-income students in the key areas of: Math and science; Literacy; History of the American West

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Printed: 2/21/2018  Teacher Grants - Rolling Deadlines
Professional Development

By Arrangement at Your School or Available Ongoing on Your Own

By Arrangement

STEM Professional Development Offerings

http://assetinc.org

ASSET STEM EDUCATION is a national Science, Technology, Engineering and Math (STEM) education improvement nonprofit established by Bayer Corporation and several community partners in 1994. It fosters STEM fluency and college/career readiness by providing educators with highly effective professional development, hands-on educational materials and consulting services — impacting students pre-K through career. All of its programs are results oriented, research and inquiry based and align with national and state standards.

Your Own Design or Pick one of their topics

Banana Slug String Band

http://www.bananaslugstringband.com/workshops

Banana Slug String Band will collaborate with you to develop a workshop that fits your needs by combining concepts, songs and strategies from a wide range of material. Already Designed Workshops: Dirt Made my Lunch, Sun, Soil, Water, & Air, Feathers, Fur, Scales, & Skin

Teach the Teachers - How to use the Bay Model with Your Class

Bay Model Visitor Center

http://www.spn.usace.army.mil/Missions/Recreation/BayModelVisitorCenter.aspx

Your personal tour is available year round to any teacher or group of teachers that want to conduct their own guided tours of the Bay Model for their students. Ranger Linda M. Holm will personally give a tour of the facility as if I was conducting an educational program for their class. It will be grade and subject specific based on the teacher’s requests. Teachers can call 415-289-3007 to set up an appointment to meet with Ranger Linda. Hours: Tuesday through Saturday 9AM - 1:30 PM.

Project WILD and Project Aquatic Wild

CA Dept of Fish and Wildlife, Central Coast Region

http://www.dfg.ca.gov/

Project WILD is a wildlife-based conservation and environmental education program that fosters responsible actions toward wildlife and related natural resources. Project WILD Activity Guides provide curriculum especially designed for educators of kindergarten through high school youth. Professional development training and educational materials are available through workshop participation. Project WILD core materials include three activity guides for educators: the Project WILD K-12 Activity Guide highlights wildlife and habitat, Project WILD Aquatic Education Activity Guide emphasizes aquatic wildlife and aquatic ecosystems, Science and Civics: Sustaining Wildlife for grade 9-12 involves inquiry investigations and decisions affecting people, wildlife and their shared habitat.

Professional Development at your School

California Academy of Sciences

http://www.calacademy.org

Many different workshops are available to come to your school for professional development. Examples are: Sketching and Journal Keeping for the Science Classroom, Owl Pellets and Beyond, Herbivore, Omnivore, Carnivore: A study of Structure and Function

Whole School Science Professional Development

Community Resources for Science

http://www.crscience.org/educators/workshops

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Printed: 3/5/2018
CRS workshops are designed to help build knowledge, skills and confidence in science teaching. Our workshops provide teachers with techniques, resource connections, tools, and planning time. Workshops are offered to both teacher groups of ten or more and whole faculties. Whole-school workshops are offered on-site to let faculties work together as a school community to accomplish their science goals and understand student learning. We support the development of teachers who are able to plan, teach, and refine strong, subject-integrated science lessons using an inquiry-based approach to their teaching and their own professional development.

**Teacher Workshops - Nature Journalling**

http://www.johnmuirlaws.com/school-programs

Presentation focuses on the most important aspects of using nature journals to integrate science, language arts, and art. Sessions include:

* Conceptual framework for nature journaling including links to NGSS, and CCSS.
* Field demonstrations of activities.
* Strategies for giving feedback and evaluating student work.
* Site evaluation to highlight resources for nature journaling activities.

**Using Video and Web resources in your classroom**

http://www.kqed.org/ednet/

KQED offers a wide range of professional development workshops focusing on the use of video in the classroom. They can focus on curriculum areas of your choice. Workshops can focus on making videos in the classroom or how to effectively use existing video and web resources in the classroom.

**Common Core & FOSS: Building ELA Skills through Active Science**


How is your school preparing to implement Common Core State Standards for English Language Arts? Have you considered building reading, writing, speaking, and listening skills through active science? Science is an ideal content area for students to develop the skills needed to meet the Common Core State Standards. The FOSS Leadership Team from the Lawrence Hall of Science can help you build your students’ abilities to use language effectively. Our teacher workshops are designed to provide experiences modeling the overlap between science and the ELA Common Core State Standards. FOSS workshops focus on how active science provides a rich experience for students to:

* effectively communicate in collaborative discussions.
* acquire and use academic and domain-specific vocabulary to express their thinking.
* write a variety of text, including informative, narrative, and evidence-based arguments.
* read and comprehend informational text, integrating knowledge and ideas.
* conduct research, using a variety of resources and present their knowledge clearly

Brian Campbell 510-664-4747 brcampbell@berkeley.edu or Joanna Totino 510-643-3478 jtotino@berkeley.edu

**Customized Workshop**

Life Lab Science Program

http://www.lifelab.org

Life Lab trainers will work with you to develop a customized workshop to meet your specific needs. Resolving issues with your garden site, working effectively with the special needs of your student population, and facilitating parent/community involvement are some of the many topics on which to focus your workshop.

**Discovery Voyage on the Bay**

Marine Science Institute

http://www.sfbaymsi.org

The day begins aboard the Institute’s research vessel, the ROBERT G. BROWNLEE, participating in hands-on activities that examine the fish, plankton, benthic invertebrates, and physical oceanography of an estuarine ecosystem. The afternoon is spent in our Discovery Classroom, exploring curriculum ideas and activities while developing lesson plans that bring science to your curriculum.

**Maker Space Support Services**

Resource Area for Teachers (RAFT)

http://raft.education/school-based-makerspace-services/

RAFT is committed to affordable programs to support school based makerspaces. We offer curriculum, and coaching, simple to use project materials which help every teacher and every student get started quickly.

**Teacher Training/Team Building - Physical Sciences**

Rock-It Science

http://rockitscience.com/teacherworkshops/

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Printed: 3/5/2018
Teachers, learn to do Rock-it Science lessons yourself. Our group experiments also make great team building/diversity training activities. We'll customize a program to suit your needs. Pick from a wide variety of Physical Science topics (Matter, Energy, Chemistry, Force and Motion, Simple Machines, Electricity). Maximum: 40 teachers Price:$1000 for 3 hours

**Teaching the 4Rs - Reduce, Reuse, Recycle & Rot/Compost**
http://www.stopwaste.org
Gain valuable skills in leading your students through classroom activities that demonstrate the 4Rs: Reduce, Reuse, Recycle and Rot/Compost while teaching science concepts and ways to reduce waste and conserve natural resources.

**Teacher Trainings**
http://www.treefrogtreks.com/
educational seminars led by Tree Frog Treks' Head Frog and Executive Director Chris Giorni, who has more than 15 years of experience in teaching science to kids of all ages. We'll engage teachers by demonstrating experiments and projects from Tree Frog Treks' curriculum, which focuses on experiential, hands-on science learning. We'll cover a broad range of topics in the life sciences (plants, animals and nature; recycling and decomposition; conservation biology), the physical sciences (simple machines; chemical reactions; states of matter) and earth sciences (geology of the earth; living in a sustainable world) plus many more. In our trainings, teachers can develop projects to suit different curriculum, try out our experiments, and learn hands-on make-and-take classroom projects. Every faculty in-service, from one hour to a full day, includes written Tree Frog Treks curriculum.

**School Site Specific Trainings**
http://botanicalgarden.berkeley.edu/education/k12.shtml#etpdanchor
Our Education staff offer unique tools and support for diverse school communities to transform gardens into enriched educational resources. Teachers, parents, garden educators and community members can all be a part of the process in accomplishing learning goals for children through garden-based education. Our fee-based workshops can be customized to meet your needs. Past topics include:

* Botany on Your Plate curriculum
* Math in the Garden curriculum
* Using the Garden Environment for Afterschool Programs
* School Garden Planning and How-To’s
* Integrating Academics into the Garden
* Nutrition from Fruits and Vegetables
* Linking Garden Activities to State Standards
For more information, contact the Education Program Coordinator

**Ongoing**

**Open Making Hours - First Wednesdays**
https://www.eventbrite.com/e/open-making-hours-tickets-36906353898
The Alameda County Office of Education welcomes educators, students and their families to our monthly Open Making Hours. Every first Wednesdays of the month the Meaning Maker Studio at ACOE opens its doors to makers of all levels and interests.

What is Open Making? Open making hours is an open format monthly session featuring learning stations, demos, technology tours, and consultations centered around meaningfully using technology and making in academic settings. Students of any age can come and try hands on activities, learn how to use new tools and technologies and meet other makers. You may bring your own projects and ideas and use our tools and resources to bring them to life, or come to tinker and explore something new.

**Seminars on Science - Online Courses for Educators**
http://learn.amnh.org/
These six-week courses developed by Museum scientists and educators incorporate the Museum's rich resources including three-dimensional virtual specimens, videos from the field, and interactive simulations. Teachers participate in discussions and activities with the Museum's scientists and educators. Continuing education units and graduate credits are available. For more information go to http://learn.amnh.org.

*We're here to help you find the science resources you're looking for. Email us at CRS@crscience.org*

*Printed: 3/5/2018*
Online Teacher Professional Development
https://www.coursera.org/courses?cats=teacherpd
Coursera offers a wide range of courses designed for teacher professional development.

School of Professional Studies
http://ce.fresno.edu/cpd/courses/
Courses are delivered through a combination of modalities to better serve the school community's needs: printed materials and texts, audiotapes, videotapes, CD-ROM, and online distance learning. These are not on-campus courses. They may be taken any place and any time. Over 20 course offerings including: "Science for the Elementary School," "Physical Science Activities for the Primary Grades," "Astronomy: For All Ages."

Web Based Professional Development
Heinemann's webinar content is developed to help educators meet curricular standards. Live webinars deliver superior PD with no travel costs, and participants interact directly with our authors and consultants on crucial topics to enhance expertise.
* Heinemann’s webinars offer a user-friendly, convenient format and the option for educators to gather as a group at school or to participate individually from home.
* Typical webinar series consist of five clock hours of streaming webcast including live discussion with the presenter, video demonstrations, presentation materials, and access to archived recordings.

Edspace
http://education.kqed.org/edspace/
This blog from KQED has posts of great information to take straight to your classroom. Online self-paced tutorials. Lesson ideas and more. Search the blog for the topics of your choice

Bay Area Maker Educator Meetup
http://lighthousecreativitylab.org/professional-development/maker-educator-meetups/
Bay Area Group meets hmonthly on the second Thursday of the month in San Francisco 6-8 pm
Maker Educator Meetups (MEM) are an opportunity to meet with like minded educators to learn from each other. The goals of MEMs are support, community, and equity — bringing design and making to all youth. During these monthly meetups, we will share with each other, provide support, network, and maybe even do a little making. There are currently two MEMs in the Bay Area — one focused on the East Bay, and one that rotates through different parts of the Bay Area. We are using Google+ to organize ourselves, share meeting dates, and Eventbrite to RSVP for meetings. Use one of the links below to access the community and then request membership. If you have any trouble getting in touch with us, contact the Creativity Lab and we will help you get in the loop.

East Bay Maker Educator Meetup
http://lighthousecreativitylab.org/professional-development/maker-educator-meetups/
East Bay Group meets monthly on the fourth Thursday of the month. Where: East Bay – Mostly Oakland 5:30-7:30 pm
Maker Educator Meetups (MEM) are an opportunity to meet with like minded educators to learn from each other. The goals of MEMs are support, community, and equity — bringing design and making to all youth. During these monthly meetups, we will share with each other, provide support, network, and maybe even do a little making. There are currently two MEMs in the Bay Area — one focused on the East Bay, and one that rotates through different parts of the Bay Area. We are using Google+ to organize ourselves, share meeting dates, and Eventbrite to RSVP for meetings. Use one of the links below to access the community and then request membership. If you have any trouble getting in touch with us, contact the Creativity Lab and we will help you get in the loop.

Free Webinars
The NASA Educator's Online Network offers webinars for teachers on a variety of science topics and how to bring these concepts into your classroom.

NSA Professional Development Resources
http://www.nsta.org/pd/
NATional SCIENCE TEachers Association

We're here to help you find the science resources you're looking for. Email us at CRS@crscience.org
The NSTA Learning Center has articles on science education, webinars (live and archived), lesson plans, books lists and so much more. Some resources are free, others are only available with NSTA membership. Membership is well worth it just to get their monthly journal.

**Online Courses for Educators in the Sciences**

www.scienceteacher.org

Educators can access electronic teacher resources, discuss issues with other educators online, and participate in high-quality graduate courses all from convenient home or work locations via the Internet. An average of 15 online graduate level science and science education courses are available each semester. NTEN courses are designed to help teachers improve and enhance their understanding of science content. Courses can be taken for professional development or as part of a graduate degree program.

**Online Webinar Classes on a variety of topics**

http://www.pbs.org/teacherline/

PBS TeacherLine’s facilitated and self-paced PD courses are designed to benefit both beginning and experienced teachers. Topics include science, reading, social studies, math, instructional strategies, and instructional technology. Innovative: Acquire new strategies and tools you can use right away to enhance classroom instruction. Engaging: Interact with peers and experts in a virtual learning environment. Flexible: Discover anytime, anywhere learning that fits into your busy schedule. Choose from 15, 30, or 45-hour facilitated courses or enroll in a 1.5 or 3-hour self-paced course.

**Online Environmental Education for PreK-8**

http://shop.plt.org/prek-8-environmental-education/

Lesson plans are flexible and can be easily incorporated into existing curriculum or non-formal education programs. The activities are correlated to state and national academic standards, including Common Core, and have an emphasis on STEM. Join the 650,000 educators across the country who use PLT’s award-winning materials with their students. Independent evaluators determined PLT increases students’ knowledge, reasoning, and academic skills.

1. Self-paced online workshop (approximately 4 hours)
2. PLT’s PreK-8 Environmental Education Activity e-Guide

**RAFT Laser Cutter Certification Course**

http://www.raft.net/workshops/in-house

Available Weekly on Thursdays from Jan. 25-May 17, 2018

Laser cutting machines help to create many customized items by using laser technology to etch, engrave, and cut through a wide variety of materials. For example, laser cutters are used to create math manipulatives, puzzles, create and etch graphic designs, etc. This workshop gives participants the knowledge and practice required to safely operate the machine on their own and provides an understanding of the different pieces of hardware through short discussions and hands-on experiences. Participants will calibrate and configure the machine for different tasks and materials appropriate for classroom use. Participants who complete the training will be certified to use the machine.

**Rock-it Science Teacher Community**

http://rockitscience.com/teachercommunity/

This online community is for adventurous teachers and homeschool parents who want to teach science the Rock-it Science way. Registration is FREE. As a registered member of our Teacher Community, you can:

* Read introductory Teacher’s Guide, “How to Present a Rock-it Science Lesson”.
* View our Lesson Videos. See the lessons as they were presented in our laboratory classroom with hands-on experiments.
* Download the corresponding Teacher Guides, which contain a complete transcript of the video, photos, an equipment list, and Quick Reference Guides.
* View our Teacher Workshop videos, where adults get to experience our lessons exactly the way students do, including the crazy stories and hands-on experiments. But they also get to ask questions about the equipment and materials, discuss any concerns they may have about how their own students might respond to the lesson, and get ideas about how to present the lessons themselves.
* Read Mr. Mac’s Blog
* Get answers to your questions and share ideas with other teachers in our Teacher Support Forum.

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Printed: 3/5/2018
Webcast: Science How - Monthly programs
Smithsonian
https://qrius.si.edu/science-webcast-schedule
8AM and 11AM Pacific Time.
Video Webcasts
These free, interactive, TV-style webcast programs will introduce your middle school students to core science concepts through the lens of Smithsonian research and experts, providing students with positive STEM role models and a connection to science in their lives. The shows air live twice each day, and provide opportunities for your students to interact via live polls and Q&A with the scientist. Explore the topics in the schedule by watching a webcast and using the classroom activities, lessons, readings, and other teaching resources that support each webcast program.

Online Text Chats
These free, interactive, text-based web chats feature scientists who have previously appeared on a Smithsonian Science How live webcast. The text chats do not have a live video component. The chats take place twice each day, and allow students to have conversations via text with scientists about their career pathways and research at the Museum. Supplement each live chat by watching the Smithsonian Science How video of the featured scientist and using the available teaching resources before and after the chat.

Berkeley Professional Development for Educators Calendar
University of California Berkeley
https://events.berkeley.edu/index.php/calendar/sn/pded.html
Calendar of professional Development opportunities for teachers offered by different departments on the UC Berkeley campus.

Online Graduate Certificate in Advancing Science Content Knowledge
Wheelock College
http://www.wheelock.edu/academics/professional-development-opportunities/online-courses
Designed to complement Wheelock's Master's in Educational Studies degree program, this 12-credit certificate builds on and goes beyond the physical and life science subject area knowledge required for approval of programs leading to an Initial teacher license (when all other state requirements are met) in the following fields: Elementary (1-6), Early Childhood Teacher of Students with or without Disabilities (PreK-2), or Teacher of Students with Moderate Disabilities (PreK-8). Each of the four courses includes examples of the application of pedagogical content knowledge, typically in the format of assigned hands-on exercises designed to construct and solidify understanding of the content, and related to teaching of inquiry and other specific science content areas with the intention of increasing teacher impact on student learning. It is the intention of the faculty who designed the courses that participants be able to demonstrate how to effectively teach specific science content knowledge upon completion of the certificate program.

Online Professional Development Workshops
PBS Learning Media
http://www.pbslearningmedia.org/
PBS Learning Media offers free online professional development on lots of different educational topics.

We're here to help you find the science resources you're looking for. Email us at CRS@crscience.org
Printed: 3/5/2018
Bring Professional Development to your School
Webinar: Building Complete Communities

For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://greenteacher.com/webinars/

Cost: FREE

Stipend:

(4:30-5:30pm PST) Join us as we discuss sustainable development and environmental protection, and how to bring these ideas into the classroom. To accommodate a growing population while protecting the environment, it is important that cities and towns are built in a sustainable way. In this webinar we will talk about how building complete communities and using greenbelts (areas of protected greenspace) can be effective methods to protect the environment and how your students can learn about these initiatives. We will chat about how sustainable development, environmental protection, and reducing climate change can be integrated into classrooms to help students become more aware of sustainable growth. We will provide many classroom ideas and free educational resources. Join us to hear more about how your students can learn to build complete communities for the future!

You Don’t Have to be a Nuclear Physicist to Understand Nuclear Science!

For Grades: 9th;10th;11th;12th
http://www.chabotspace.org/feast.htm

Cost: FREE

Stipend:

(4:00 pm – 6:00 pm) - How would you and your high school students like to be able to conduct real nuclear science experiments in your classroom? Professor Eric Norman and students from UC Berkeley’s Nuclear Engineering Department have obtained a grant from the American Nuclear Society that is being used to set up a “lending library” of scientific equipment and materials to enable such experiment to be conducted in local schools. All materials are safe and designed for educational purposes. If you can’t attend this meeting, there will be another session scheduled at a later date. To borrow the equipment, teachers must attend one of our trainings. For further information about nuclear science and the experiments that will be available, please visit http://abc.lbl.gov.

Teacher Open House

For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://www.sfbaymsi.org/teacher-workshop-2017

Cost: FREE

Stipend:

Learn about our programs, NGSS alignment, engineering and science ideas for your classroom all while enjoying delicious food and drink, along with views of the San Francisco Bay! Book your fall and winter 2018-2019 school year programs at the workshop and get the dates you want! Adding to the fun, we’ll be raffling off prizes selected just for you, including MSI Programs for your students! See you there!

Strategies for Supporting Newcomers

For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://www.abdoakland.org/maker-bar-teacher-resource-center/

Cost: free

Stipend:

4:00 PM – 6:00 PM- Learn from coaches at Oakland International High School, which serves 100% newcomers. Look at and participate in numerous strategies for teaching language, including developing high-quality language objectives, touring classroom spaces, seeing examples of systems and structures, and engaging in instructional practices. This workshop is hosted by Agency by Design Oakland, in the Teacher Resource Center & Maker Bar at Oakland International High School. Snacks and coffee/tea will be served.
3/7/2018  NGSS Beyond the 3 Dimensions  Alameda County Office of Education
For Grades:  K;1st;2nd;3rd;4th;5th
https://www.eventbrite.com/o/aceo-core-learning-team-6478769131
Cost  $75/person; Register 3, Get 1 Free,
Stipend:  (Includes continental breakfast and)
In this workshop, participants will:
- Examine California’s Environmental Principles and Concepts (EP&Cs)
- Explore the connections between California’s EP&Cs and the three dimensions of NGSS instruction
- Participate in an Engineering Design activity focused on solving a real-world environmental issue
- Analyze connections between key elements of engineering design activities California’s EP&Cs

3/7/2018  Making Across Content Areas  Children’s Creativity Museum
For Grades:  3rd;4th;5th;6th;7th;8th
https://creativity.org/educatorworkshops/
Cost  $30
Stipend:
One of CCM’s most impactful activities is the Mystery Box Challenge. Students are given a unique, age-appropriate challenge and are asked to work collaboratively to design a creative solution using a specific set of materials (wrapping paper tubes, foil, corks, etc.). This simple activity can be used to effectively build creative confidence, encourage risk-taking, practice perseverance, and employ critical thinking. Light refreshments will be provided.

3/8/2018  Thinking Frameworks: Parts, purposes, and complexities - San Francisco  Bay Area Maker Educators
For Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th;PK;TK
https://www.eventbrite.com/o/maker-educators-7302573677
Cost  free
Stipend:  6:00-8:00pm -Inspired by Agency by Design, we will explore a thinking routine that helps students slow down and make careful observations of an object or system.

3/8/2018  Everyone Engineers! - Boston  Engineering is Elementary
3/9/2018
For Grades:  K;1st;2nd;3rd;4th;5th
http://www.eie.org/eie-curriculum/workshops-and-professional-development/workshops
Cost  $250
Stipend:
In Boston - This workshop prepares elementary school teachers to use the EiE curriculum to integrate engineering and science instruction in the classroom. This learner-driven workshop is designed to build your knowledge of engineering and your confidence in teaching it. You’ll get hands-on experience with EiE materials and insights into the most effective strategies for teaching the curriculum. During this two-day, hands-on workshop, you will
* gain foundational knowledge of technology, engineering, and the engineering design process
* become familiar with how EiE curriculum units are structured
* become familiar with EiE’s underlying pedagogical approach
* experience two different EiE units, both as a learner and as a teacher
* reflect on the learning experiences your students will have with EiE
* reflect on the instructional strategies you’ve learned

3/10/2018  Invention Literacy, Making and Design Thinking with Makey-Makey  The Tech Museum of Innovation
For Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
https://www.thetech.org/education/forteachers/bowersinstitute/designmakecode
Cost  $100 (Makey-Makey and breakfast included)
Stipend:  Explore how to teach circuitry, conductivity and basic programming in Scratch using a Makey-Makey, simple materials and real-life applications. Then, design an invention based on a current project, lesson or new idea for your own learning space. All participants go home with their own Makey-Makey. Online follow-up session to be scheduled for May 2018.

3/10/2018  Experiencing the Levels of Inquiry  California Academy of Sciences
For Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://www.calacademy.org/events/teacher-workshops
Cost  $40
Stipend:  (Saturday March 10 and Saturday March 24, 2018) What exactly is scientific inquiry? Does the linear “Scientific Method” we see in textbooks accurately represent how science is done in the real world? How might my students benefit from different kinds of inquiry experiences in the classroom? This two-day hands-on, inquiry experience can help you explore these question, and many more! Engage in your own inquiry project as an adult learner, coming up with your own testable question about one of our aquarium animals, and planning an observational study to collect and analyze data. You will learn what the experience of scientific inquiry is really like, as compared to more “cookbook” classroom science activities.

We're here to help you find the science resources you're looking for. Email us at CRS@crscience.org
Printed:  3/5/2018  Professional Development
3/12/2018  Webinar: Little Walks, Big Adventures: Meaningful Field Trips with Young Children  EdWeb.net
For Grades:  K;1st;2nd;PK;TK  
https://home.edweb.net/webinars/2018-03/  
Cost  FREE  Stipend:  
12:00 PM - 1:00 PM (Pacific Time) - Often we miss the potential of field trips to extend and deepen learning. In this edWebinar you will learn how to have fun, engaging field trips that build on classroom learning, reinvigorate subjects, and deepen learning for all young students. Countless adventures and learning opportunities for young learners await outside! Going for a walk or exploring the local community can bring about much more than just exercise.

3/13/2018  Webinar: Risky Play and Child Development  Green Teacher
For Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th  
http://greenteacher.com/webinars/  
Cost  FREE  Stipend:  
(4:30-5:30pm PST) Do we overprotect our children? Might our attempts to keep children safe actually do more harm than good? This webinar will consider these questions and what we might be able to do to restore balance. Lisa and Anders will share some tools for talking to parents, educators and others about the importance of risk taking, and will provide examples of good play space design on children's behaviour.

3/13/2018  Using Creativity Practices to Advance Learning  Children's Creativity Museum
For Grades:  2nd;3rd;4th;5th  
https://creativity.org/educatorworkshops/  
Cost  $30  Stipend:  
Digital stop-motion animation is a powerful tool for learning, and offers a unique way to nurture students' creativity, collaboration, and literacy skills. In this hands-on workshop, educators will experience the process of stop-motion animation and discuss ways to implement digital storytelling in their classrooms. Students to work together to develop a story concept, create a variety of characters and settings, and film their own stop-motion animation movie.

For Grades:  5th;6th;7th;8th;9th;10th;11th;12th  
https://register.gotowebinar.com/register/1641551453337916675  
Cost  FREE  Stipend:  
(3:00 PM PDT) Amy Dean, National Estuarine Research Reserve System. People all over the world experience impacts from El Niño and La Niña, the recurring climate pattern that occurs across the tropical Pacific Ocean. As this year's La Niña subsides, join us for a science-based exploration of this powerful phenomena. In this presentation, participants will dive deep into Data in the Classroom's El Niño Module to examine decades of observations from Earth observing satellites and take a virtual tour of the new web-based curricular modules and data tools. Data in the Classroom is designed to help teachers and students use real scientific data to explore dynamic Earth processes.

3/13/2018 - 3/15/2018  Art of Tinkering Workshop  Exploratorium
For Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th;PK;TK  
https://tinkering.exploratorium.edu/aotworkshop  
Cost  $1500.00  Stipend:  
This three-day workshop is designed for educators from all backgrounds, settings, and experience levels. It is an interactive, fun, and deeply reflective hands-on experience that will empower educators to understand our tinkering approach and implement it in their existing practice. During the workshop participants will:
☐ Experience the tinkering process as learners
☐ Reflect on each experience as educators
☐ Develop strategies for implementing tinkering in their practice
☐ Participate in a global community of tinkering enthusiasts!

For Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th;PK;TK  
https://home.edweb.net/webinars/2018-03/  
Cost  FREE  Stipend:  
12:00 PM - 1:00 PM (Pacific Time) - Why Design Matters: How a Well-Designed Website Can Increase Engagement. You might be surprised by how much the look and feel of a website impacts communication and community engagement at your school, but do you know all the components that go into creating a great website design? Colors, text, functionality, and interactivity are just the start of the core principles you need to know to create a truly engaging website.

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Printed:  3/5/2018  Professional Development
Elevating the Priority of Science and Environmental Literacy in Schools

For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th;PK;TK

http://scienceatcal.berkeley.edu/ceo-meeting-schedule/

Cost: Free
Stipend: Free

(Noon-1:30pm) Presenter: Vanessa Lujan, Deputy Director of the Teaching and Learning Group, Lawrence Hall of Science. Districts, along with their external partners, must advocate for the implementation of high-quality science education and environmental literacy experiences for all learners. Lujan will present her work with districts that are elevating science and environmental literacy across all sites and grade levels. Learn and share how stakeholders can advocate and support key district capacities in science education and environmental literacy. Location: 337 Cory, UC Berkeley campus

Tour - Elementary

For Grades: K;1st;2nd;3rd;4th;5th;6th

http://www.eventbrite.com/o/lighthouse-creativity-lab-5950964179

Cost: FREE
Stipend: FREE

(9:30am) Tours are a great way to see what making looks like integrated into a classroom. We will discuss the Lighthouse Creativity Lab program, see making in at least one K-12 class, answer questions, and hear a little about your plans.

Field Trip for Teachers/Resource Fair @ Chabot Space & Science Center

For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

https://www.surveymonkey.com/r/FTFTMarch2018

Cost: FREE
Stipend: FREE

The next Field Trip for Teachers will be at the Chabot Space & Science Center. We will be offering a science education resource fair with educators from museums and other science education providers available to talk about their programs. Chabot Space & Science Center will offer excerpts from their field trip and in class programs. Food, Door Prizes, Networking......Approximate times 9:00am-12:00pm

RAFT Electrical Engineering Game Board Challenge

For Grades: 6th;7th;8th

http://www.raftbayarea.org/workshops

Cost: $25 for members; $40 for non-members
Stipend: $25 for members; $40 for non-members

Electricity plays a key role in modern society. It powers homes and businesses and keeps us comfortable by powering heaters and air conditioners. Most electricity that is generated is used to power lights and appliances for people around the world. This workshop takes participants through an instructional unit designed to put students in the role of electrical engineers by providing them with experience in designing different circuit types and using a variety of electrical components, such as capacitors, transistors, and LEDs. Participants will learn the factors that affect the strength and direction of electric forces in circuits through several activities, online resources, and investigations. They will engage in a design challenge where they design and build a board game that incorporates circuitry as the basis of user interaction with the game.

Sowing the Seeds of Wonder: Discovering the Garden in Early Childhood - Reg by §

For Grades: K;1st;PK

http://www.lifelab.org/for-educators/workshops/gcworkshops/

Cost: $180
Stipend: $180

Spend a day looking at the garden through the eyes of a pre-school student. Sample many activities that can encourage young children to learn about their world using all their senses. Learn how to implement garden activities in a pre-school setting. We’ll also discuss basic gardening skills, appropriate garden design, safe plants for preschool gardens, and garden art projects and songs. You’ll receive a pre-school activity packet with activities and songs for teaching throughout the year. Coffee and bagels at 8:45, workshop from 9:00-3:00. Please bring a sack lunch.

Frontcountry Leadership Training (FLT)

For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

http://www.bawt.org/programs/training/leadership-training/frontcountry-leadership-training/

Cost: $95-225
Stipend: $95-225

Frontcountry Leadership Training (FLT) is an entry level course covers all the basic skills you will need to successfully take youth on car-camping based overnight trips. Skills covered include: camping safety, day-hiking, tent and stove-set up, clothing requirements, nutrition and team building activities. All learning is experiential. Prior to the weekend training, to get access to our gear libraries, participants also need to complete the Gear Orientation (GO!) training. This can be completed during the pre-trip meeting. Please note that Gear Orientations are offered in both our Oakland and Milpitas offices. Cost: The cost of the course covers all course materials, meals and camping. Participants will have to provide their own transportation to get to the location. The price is $65 for the first participants, and $50 for each additional participant from the same organization (Limit: 2 Discounts per organization). All registrations include a Gear Orientation and pre-trip meeting.

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Printed: 3/5/2018
Professional Development
3/15/2018 - 3/18/2018
National Conference - Atlanta
For Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://www.nsta.org/conferences/national.aspx
Cost $225-270
Stipend:
National Conference in Atlanta: March 15-18, 2017

3/19/2018
Webinar: Spring 2 (March 19 - April 29, 2018)
For Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://learn.amnh.org/
Cost $520
American Museum of Natural History
A variety of online courses designed for teachers

3/20/2018
Webinar: 10 weeks - Supporting Student Argumentation in English Language Arts and Social Studies
For Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
https://lagunita.stanford.edu/courses/course-v1:Education+XEDUC205+Spring2018/about
Cost free?
Stipend:
March 20, 2018 - May 31, 2018  College- and Career-Ready standards emphasize the importance of speaking, listening, and engaging in argumentation as a means FOR learning and as a valuable goal OF learning. Starting March 20, Drs. Sara Rutherford-Quach, Jeff Zwiers and Erika Johnson at Stanford Graduate School of Education will offer an online professional development course that focuses on student argumentation, Supporting Student Argumentation in English Language Arts and Social Studies. The overall purpose of this course is to help teachers prepare students, and particularly language learners, to clearly communicate well-structured oral and written arguments about content-area concepts and topics. This course consists of five online sessions, which will be released in succession. Each session includes expert video screencasts, classroom video clips, readings and resources, and assignments that will prompt participants to strengthen the curricular foundations of communication. Participants are free to complete the session tasks at their own pace as long as they finish them all before the course ends on May 31.

3/20/2018
Teacher Inquiry in Action Forum
For Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th;TK
Cost Free
Stipend:
Join educators and friends from around the Bay to learn how teacher leadership is driving instructional improvement in our districts and schools. At this free, interactive gathering, engage in panels and discussions with teacher scholars and school leaders as we celebrate their learning. Connect, recharge, and discover how teacher-led inquiry transforms learning for students and adults. Delicious food, wine, and dessert will be served. Register today, and bring your colleagues!

3/20/2018
Webinar: STEM in the Outdoors
For Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th;TK
http://www.birdsleuth.org/free-webinars/
Cost FREE
Cornell Lab of Ornithology
3:00 PM PST Many of us need to engage students in the field of STEM (Science, Technology, Engineering, and Mathematics). However, STEM isn’t just about robotics and coding; kids benefit from time outside exploring the natural world. Join us to learn how birds can engage students in STEM fields while giving them an appreciation for the natural world. In this webinar, educators will:
Discuss the importance of outdoor learning.
Understand how birds and citizen science can help meet STEM learning.
Explore three STEM activities that can be implemented immediately in the classroom.

3/21/2018
Webinar: Makerspace Successes, Makerspace Challenges
For Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th;TK
https://home.edweb.net/webinars/2018-03/
Cost FREE
EdWeb.net
Stipend:

We're here to help you find the science resources you're looking for. Email us at CRS@crscience.org

Printed:  3/5/2018  Professional Development
2:00 PM - 3:00 PM (Pacific Time) - Maker culture is here and it is alive and thriving in schools and public libraries across the United States and beyond. While each makerspace is a reflection of its own learning community, there are valuable lessons we can take away from maker facilitators: successes, challenges, surprises, do-overs, and "I wishes." In this edWebinar, Michelle Luhtala, Library Department Chair at New Canaan High School, CT, will explore school library makerspaces from floor plans, furnishings, and equipment to the role of play in a data-driven education landscape. Please join us to discover how to integrate making into your learning community. School librarians, teachers, administrators, and all educators interested in makerspaces will enjoy and learn from this live, interactive session. There will be time for questions after Michelle’s presentation.

3/21/2018 2018 Science Summer Teacher Institutes - deadline 3/21/18
Library of Congress
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://www.loc.gov/teachers/professionaldevelopment/teacherinstitute/
Cost FREE workshop - You provide transportation & accomodations
Stipend:
Immerse yourself in the practice of teaching with primary sources from the unparalleled collections of Library of Congress this summer. Apply to attend a week-long professional development program for K-12 educators in the nation’s capital. In 2018, the Library will offer five Institute weeks:
* Open Sessions (any subject area): June 18-June 22, June 25-June 29, and July 30-August 3
* Science, Technology, and Engineering Focus: July 16-July 20
Each Institute week, Library of Congress education specialists facilitate sessions modeling strategies for using primary sources to engage students, build critical thinking skills, and construct knowledge. Participants reflect on and discuss how the strategies apply to their students, subject areas, and classrooms or school libraries. During the week, participants draw from among the millions of digitized primary sources in the Library’s collections to design and refine a primary source activity to use with their students. While the emphasis is on learning and applying teaching strategies, participants also have opportunities to meet experts from the Library and possibly to research in the Library’s reading rooms to gather information and resources to use in developing their activities. In the school year following the Institute, educators are expected to implement a primary source based activity and share outcomes with Institute staff and their session cohort. Library staff will provide resources for participants to facilitate sharing what they have learned with colleagues in their professional networks. Finally, participants also have an option of completing additional work to pursue graduate credit in history from George Mason University.

3/21/2018 Early Learning: CPIN Foundations and Frameworks Earth Science
Alameda County Office of Education
For Grades: PK;TK
https://www.eventbrite.com/o/acoe-core-learning-team-6478769131
Cost FREE
Stipend: A light dinner will be provided.
At this workshop participants will:
· Interact with earth materials
· Explore the Earth Sciences strand from the Preschool Learning Foundations (PLF, Vol. 3)
· Connect the PLF to strategies from the Earth Sciences strand of the Preschool/TK Curriculum Framework (PCF, Vol. 3)
· Identify strategies specifically supportive to dual language learners in the earth sciences
· Practice utilizing UDL strategies to enhance opportunities to support all children in the earth sciences

3/22/2018 Virtual Reality
Bay Area Maker Educators
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th;PK;TK
https://www.eventbrite.com/o/maker-educators-7302573677
Cost FREE
Stipend:
5:30-7:30pm - Young makers will share experiences with free and low-cost software allowing them to create their own virtual reality content using Cardboard and the HTC Vive. Come hear students talk about their projects ranging from models to mazes to data visualization, then try it out yourself, all while networking with like-minded educators. Black Pine Circle Upper School, 2015 Sixth Street, Berkeley, CA 94710

3/22/2018 Webinar: STEM in the Outdoors
Cornell Lab of Ornithology
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th;TK
http://www.birdsleuth.org/free-webinars/
Cost FREE
Stipend:
5:00 PM PST Many of us need to engage students in the field of STEM (Science, Technology, Engineering, and Mathematics). However, STEM isn't just about robotics and coding; kids benefit from time outside exploring the natural world. Join us to learn how birds can engage students in STEM fields while giving them an appreciation for the natural world. In this webinar, educators will:
Discuss the importance of outdoor learning.
Understand how birds and citizen science can help meet STEM learning.
Explore three STEM activities that can be implemented immediately in the classroom.
Teacher Educator Institute - Boston

For Grades: K;1st;2nd;3rd;4th;5th

http://www.eie.org/eie-curriculum/workshops-and-professional-development/workshops

Cost $450

Stipend:

In Boston - If you’re a professional development provider, this workshop prepares you to facilitate EiE professional development workshops for teachers in your school, district, or state. Like all EiE workshops, our Teacher Educator Institute is hands-on and learner-driven. You’ll develop a deep understanding of the pedagogy and structure of the EiE curriculum. And you’ll take away a large collection of valuable resources to help you facilitate your own EiE workshops. During this 2 ½ day workshop, you will

* experience two different EiE units as a learner and as a teacher.
* become familiar with the EiE curriculum, including the structure of the units and the pedagogical approach.
* gain foundational knowledge of technology, engineering, and the engineering design process.
* reflect on the strategies used by your workshop facilitators and the philosophical underpinnings of the EiE curriculum.

Program Your Pages: Servo, ATTtiny and Microcontrollers

For Grades: 4th;5th;6th;7th;8th;9th;10th;11th;12th

https://www.thetech.org/education/forteachers/bowersinstitute/designmakecode

Cost $160

Stipend:

Educators will learn to solder circuit systems and program Arduino IDE to turn a simple notebook into a gateway to the internet. Add more control and features to your notebook by adding microcontrollers like the ATTiny85 to your paper circuitry. Make your LEDs blink in different patterns. Have them react to a light sensor. We’ll also examine the Tide Notebook Project — an open-data prototype integrating traditional, artistic and scientific journaling with a wifi development kit — and brainstorm ways to integrate literacy, data and the Internet of Things into your curriculum.

Saturday Seminar: Structuring Group Work for Inclusion and Integration

For Grades: K;1st;2nd;3rd;4th;6th;7th;8th;9th;10th;11th;12th

http://bit.ly/2mh0h2E

Cost FREE

Stipend:

At Longfellow Middle School in Berkeley. 9:00-12:00

Participant Structures in Science and Mathematics: Structuring Group Work for Inclusion and Integration

Successful use of language in academic settings requires that students make decisions about what they say or write, how they do this, and for what purposes. This requires that teachers understand discourse-level features of language, which are not always apparent. It is necessary to design pedagogy and curricula that teach and reinforce successful uses of language. Participant Structures offer a potentially powerful approach. This presentation will consider Participant Structures from the perspective of science instruction and provide an opportunity to collaborate in brainstorming possible structures for multiple settings. Dr. Tomás Galguera, Professor of Education at Mills College

Camping at the Presidio Training

For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

http://www.bawt.org/programs/training/leadership-training/camping-at-the-presidio/

Cost $45

Stipend:

The CAP Leadership Training is designed to provide group leaders with the skills and resources to plan and lead a youth camping trip in the Presidio and beyond. During the two-day, one-night training session, group leaders acquire technical camping skills and become familiar with the Presidio’s natural and cultural resources. They are trained to lead place-based nature hikes and other outdoor activities as well as learn about the process for reserving a camping trip through the CAP program. After participants complete the CAP Leadership Training program, they can begin to prepare for their camping trip to the Presidio’s Rob Hill Campground.

Tour Middle & High School

For Grades: 6th;7th;8th;9th;10th;11th;12th

http://www.eventbrite.com/o/lighthouse-creativity-lab-5950964179

Cost FREE

Stipend:

(1:30pm) Tours are a great way to see what making looks like integrated into a classroom. We will discuss the Lighthouse Creativity Lab program, see making in at least one K-12 class, answer questions, and hear a little about your plans.

April 2018

We’re here to help you find the science resources you’re looking for. Email us at CRS@crscience.org

Printed: 3/5/2018 Professional Development
**4/5/2018**  
Webinar: Simple STEAM: Preparing Young Children for the Careers of the Future  
For Grades: K;PK;TK  
[https://home.edweb.net/webinars/2018-04/](https://home.edweb.net/webinars/2018-04/)  
**Cost:** FREE  
**Stipend:**  
12:00 PM - 1:00 PM (Pacific Time) - he reality is that today’s babies seem smarter and more tech savvy than ever! And their interests are becoming more sophisticated and their questions are getting harder. There is no way we will keep up if we don’t go back to basics. We are raising children that will work in careers that don’t even exist yet, spell words that are not in today’s dictionary, and solve problems that we can’t even imagine right now. What can we do today to raise children that are excited about the careers of the future?

**4/6/2018**  
Ecology Intensive  
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th  
**Cost:** $95  
**Stipend:** Breakfast, lunch and dinner is provided  
Participants are invited a day early for a day-long intensive ecology exploration. While the main event combines training in practical planning and teaching methods, the optional day is packed with information on topics such as bird language, tracking, botany, general ecology and climate change.

**4/7/2018 - 4/8/2018**  
Learning on the Land: A Teacher Training  
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th  
**Cost:** $205  
**Stipend:** Course fee includes: instruction, local travel, meals and accommodations  
NOTE: This class is limited to 18 students. Priority is given to classroom teachers and youth program leaders who would like to reserve the Clem Miller Environmental Education Center for an overnight stay. Designed for teachers, naturalists, environmental educators, and youth program leaders, this course provides 20 hours of intensive training in natural history, environmental education and program planning. Topics include animal tracking, native plant identification and uses, stream ecology, environmental education activities, night hikes and campfire programs, leading a hike, integrating environmental education across the curriculum and program planning. The program is compatible with the California State Science Framework.

**4/10/2018**  
NGSS and Engineering  
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;TK  
[https://www.thetech.org/education/for-teachers/design-challenge-learning](https://www.thetech.org/education/for-teachers/design-challenge-learning)  
**Cost:** $40  
**Stipend:**  
Join us for a half day that’s full of inquiry and fun as you create engineering lessons that explore the NGSS. You will run through an abbreviated lesson sequence that can be used in your own classroom to build excitement around engineering. You will also learn how to blend engineering into common core curriculum to boost critical thinking skills. Finally, spend some time designing and planning your own engineering challenge with support from other educators.

**4/11/2018**  
Engagement in Learning & Unique Objects  
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th  
[http://www.calacademy.org/events/teacher-workshops](http://www.calacademy.org/events/teacher-workshops)  
**Cost:** $50  
**Stipend:** scholarships are available  
Wednesdays, April 11 - May 9, 2018. 4:00pm - 7:00pm. Must attend all. Museums have unique objects from specimens to planetariums that can engage learners in complex topics. How can educators use these objects to build deep engagement in topics? What methods are most successful in helping learners build personal connections and feelings towards topics? How does this create longer-term motivation and curiosity? During this series educators participate in activities to explore what learning research looks like in practice, and use videos of themselves teaching to reflect upon and brainstorm ways to strengthen their interactions with learners.

**4/12/2018**  
Intro to Computer Science through Scratch  
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th  
**Cost:** free  
**Stipend:**  
4:30 PM – 6:30 PM - Join us as we talk about the taking the first steps into Computer Science and coding in your classroom. Try out the free online programming language Scratch and see where you can take it. No Computer Science or coding experience necessary. All grade levels and content areas welcome. We will provide Chrome Books to work on.

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Printed: 3/5/2018  
Professional Development
4/11/2018 - 4/15/2018
Wilderness Leadership Training Henry Coe State Park
Bay Area Wilderness Training
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://www.bawt.org/programs/training/leadership-training/wilderness-leadership-training/
Cost $300-995
Stipend:
The Wilderness Leadership Training (WLT) is a five day intensive entry-level backpacking course at the heart of BAWT's programs. It is designed to give you the tools you need to lead youth on multi-day backpacking adventures. After completing the course, you will gain full access to our gear libraries. The Wilderness Leadership Training consists of a pre-trip meeting and five days of backpacking in the Sierra Nevada Mountains. Skills learned include: clothing requirements, nutrition, equipment use, map and compass reading, basic wilderness first aid, leadership styles, group dynamics and more. Role playing exercises are used to give participants a realistic backcountry leadership experience. Food and transportation are provided and no previous experience is necessary. Cost: Fees for the WLT are on a sliding scale. Please choose the appropriate registration fee by selecting your agency's annual budget (total support and revenue for the past fiscal year.) Please note: training costs for one individual are waived for organizations in exchange for the use of a 15-person passenger van.
$199.999 and under — $195.00 or $200,000-$999,999 — $295.00 or $1,000,000+ — $395.00 or Unaffiliated Individual — $695.00
If financial constraints prohibit you from signing up for the WLT, please consider applying for the full tuition Amy Chamberlain Scholarship Fund. For more information please contact us at programs@bawt.org.

4/17/2018
Culturally Responsive Making
Agency by Design Oakland
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://www.abdoakland.org/maker-bar-teacher-resource-center/
Cost free
Stipend:
4:30 PM – 6:30 PM- Join us for a night of culturally responsive making! Learn how Grass Valley Elementary School has used its Wonder Workshop to engage students, families, and teachers in hands-on interdisciplinary making. Participants will walk away with both pedagogical resources and concrete best practices to use in the classroom.

4/17/2018
Webinar: Engineering Design for Birds
Cornell Lab of Ornithology
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://www.birdsleuth.org/free-webinars/
Cost FREE
Stipend:
3:00 PM PST Nature is full of marvelous and powerful engineers, including birds. Whether it's weaving an ornate pendulum nest or constructing a maze of mud cavities, birds alter their habitat to survive and reproduce. By becoming engineers themselves, students can also design better habitats for birds. Join us to explore three engineering challenges for students to design structures that provide for three habitat components: food, water, and cover. In this webinar, educators will:
Discover how birds are nature’s engineers.
Learn the importance of food, water, and cover for a bird’s survival.
Explore three engineering design challenges for students to improve their local habitat for birds.

4/19/2018
Webinar: Engineering Design for Birds
Cornell Lab of Ornithology
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://www.birdsleuth.org/free-webinars/
Cost FREE
Stipend:
5:00 PM PST Nature is full of marvelous and powerful engineers, including birds. Whether it's weaving an ornate pendulum nest or constructing a maze of mud cavities, birds alter their habitat to survive and reproduce. By becoming engineers themselves, students can also design better habitats for birds. Join us to explore three engineering challenges for students to design structures that provide for three habitat components: food, water, and cover. In this webinar, educators will:
Discover how birds are nature’s engineers.
Learn the importance of food, water, and cover for a bird’s survival.
Explore three engineering design challenges for students to improve their local habitat for birds.

4/20/2018
Tour - Elementary
Lighthouse Community Charter School
For Grades: K;1st;2nd;3rd;4th;5th;6th
http://www.eventbrite.com/o/lighthouse-creativity-lab-5950964179
Cost FREE
Stipend:
(9:30am) Tours are a great way to see what making looks like integrated into a classroom. We will discuss the Lighthouse Creativity Lab program, see making in at least one K-12 class, answer questions, and hear a little about your plans.

We're here to help you find the science resources you're looking for. Email us at CRS@crscience.org
Printed: 3/5/2018 Professional Development
4/20/2018  Introduction to Next Generation Science in the Garden  Life Lab Science Program
For Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th
http://www.lifelab.org/for-educators/workshops/gcworkshops/
Cost  $150  Stipend:  Make the connection from seed to table in this fun and delicious one-day workshop. Explore ways to teach nutrition through gardening, harvesting and meal preparation in Life Lab’s Chez Panisse Garden Kitchen. You’ll learn how effective ways to encourage kids grades 2-8 to eat more fruits and vegetables as part of a healthy lifestyle. Participants will sample the bounty of the farm and harvest to prepare a nutritious lunch. You’ll receive an activity packet with gardening and nutrition lessons, recipes, and garden kitchen resources.

4/21/2018  Developing Your NGSS Lessons  Life Lab Science Program
For Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th
http://www.lifelab.org/for-educators/workshops/gcworkshops/
Cost  $150?  Stipend:  Details haven’t been released on their website yet.

4/21/2018  Distinguished Speaker Series: Excellence Through Equity  St. Mary's College
For Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th;PK;TK
https://www.stmarys-ca.edu/kalmanovitz-school-of-education/distinguished-speaker-series-0
Cost  $65.00  Stipend:  Credit or CEU available
Dr. Pedro Noguera: 8:30-2:30
Educational neuroscience is a hot topic! While the movement for standards and accountability has largely succeeded in bringing greater attention to disparities in student achievement, surprisingly little attention has been given to what it takes to create conditions in schools that will make achievement for all students more likely. How to place equity at the center of education reform, and support effective teaching in schools. This presentation will show why the path to excellence is through equity and what we can to to make it happen.

4/21/2018  Cal Day Open House - April 21, 2018  University of California Berkeley
For Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://calday.berkeley.edu/
Cost  FREE  Stipend:  FREE
From Astronomy to Zoology, explore the wonders of science! There are a a huge range of activities for adults and families. Tour the Berkeley Natural History Museums (Valley Life Sciences Building) and Berkeley's renowned research labs. Arrive early to register for a place on a Museum of Paleontology tour! Tour the Space Sciences Laboratory, Lawrence Hall of Science and the Botanical Garden (take Hill Shuttle from Evans Hall east entrance). Meet Cal scientists at numerous talks and hands-on presentations

4/24/2018  Computer Science Fundamentals for K-6 educators  Contra Costa County Office of Education
For Grades:  K;1st;2nd;3rd;4th;5th;6th
https://www.eventbrite.com/o/contra-costas-county-office-of-education-2856833825
Cost  $20  Stipend:  (8:30 AM – 3:00 PM ) This workshop will cover Code.org’s CS Fundamentals courses A-F. Code.org's elementary school curriculum allows event the youngest students to explore the limitless world of computing. Courses blend online, self-guided and self-paced tutorials with "unplugged" classroom activities that require no computer. Please bring a laptop or device with headphones.

4/26/2018  Tour Middle & High School  Lighthouse Community Charter School
For Grades:  6th;7th;8th;9th;10th;11th;12th
http://www.eventbrite.com/o/lighthouse-creativity-lab-5950964179
Cost  FREE  Stipend:  (1:30pm) Tours are a great way to see what making looks like integrated into a classroom. We will discuss the Lighthouse Creativity Lab program, see making in at least one K-12 class, answer questions, and hear a little about your plans.

4/26/2018  Makers and Artists Making Marks - East Bay  Bay Area Maker Educators
For Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th;PK;TK
https://www.eventbrite.com/o/maker-educators-7302573677
Cost  free  Stipend:  5:30 PM – 7:30 PM - How do makers make art? How do artists make marks? Come tinker in multiple hands-on stations at this East Bay Maker Educator Meet-up. Learn how contemporary artists play with mark making then design your own mark making tool with both low tech and tech materials available.

We're here to help you find the science resources you're looking for. Email us at CRS@crscience.org
Printed:  3/5/2018  Professional Development
4/27/2018 - 4/29/2018
AEOE Statewide Spring Conference 2018
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://aeoe.org/events/
Cost $50+  Stipend:
Statewide Spring Conference "Creating a Culture of Science" at Camp Hess Kramer in Malibu, CA

4/28/2018 - 4/29/2018
Frontcountry Leadership Training (FLT)
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://www.bawt.org/programs/training/leadership-training/frontcountry-leadership-training/
Cost $95-225  Stipend:
Frontcountry Leadership Training (FLT) is an entry level course covers all the basic skills you will need to successfully take youth on car-camping based overnight trips. Skills covered include: camping safety, day-hiking, tent and stove-set up, clothing requirements, nutrition and team building activities. All learning is experiential. Prior to the weekend training, to get access to our gear libraries, participants also need to complete the Gear Orientation (GO!) training. This can be completed during the pre-trip meeting. Please note that Gear Orientations are offered in both our Oakland and Milpitas offices. Cost: The cost of the course covers all course materials, meals and camping. Participants will have to provide their own transportation to get to the location. The price is $65 for the first participants, and $50 for each additional participant from the same organization (Limit: 2 Discounts per organization). All registrations include a Gear Orientation and pre-trip meeting.

4/30/2018
Data Collection Workshop - San Jose
For Grades: 4th;5th;6th;7th;8th;9th;10th;11th;12th
http://www.vernier.com/training/workshops/
Cost FREE  Stipend:
Free hands-on training to integrate data-collection technology into your science curriculum. Join Vernier for one of their free, 4-hour, hands-on workshops to learn how to integrate our computer and handheld, data-collection technology into your science curriculum. The workshops include lunch or dinner and lab handouts. These workshops are eligible for graduate credit. This is a great opportunity for teachers who
* Want to evaluate our award-winning, data-collection technology.
* Are new to data collection.
* Need a refresher course on their Vernier equipment.
* Want to learn from the experts.

May 2018

5/1/2018
Data Collection Workshop - Oakland
For Grades: 4th;5th;6th;7th;8th;9th;10th;11th;12th
http://www.vernier.com/training/workshops/
Cost FREE  Stipend:
Free hands-on training to integrate data-collection technology into your science curriculum. Join Vernier for one of their free, 4-hour, hands-on workshops to learn how to integrate our computer and handheld, data-collection technology into your science curriculum. The workshops include lunch or dinner and lab handouts. These workshops are eligible for graduate credit. This is a great opportunity for teachers who
* Want to evaluate our award-winning, data-collection technology.
* Are new to data collection.
* Need a refresher course on their Vernier equipment.
* Want to learn from the experts.

5/2/2018
Data Collection Workshop - Sacramento
For Grades: 4th;5th;6th;7th;8th;9th;10th;11th;12th
http://www.vernier.com/training/workshops/
Cost FREE  Stipend:
Free hands-on training to integrate data-collection technology into your science curriculum. Join Vernier for one of their free, 4-hour, hands-on workshops to learn how to integrate our computer and handheld, data-collection technology into your science curriculum. The workshops include lunch or dinner and lab handouts. These workshops are eligible for graduate credit. This is a great opportunity for teachers who
* Want to evaluate our award-winning, data-collection technology.
* Are new to data collection.
* Need a refresher course on their Vernier equipment.
* Want to learn from the experts.
Genes & Traits Facilitation Academy

For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

http://we-mss.weebly.com/register.html

Cost $1000  Stipend: s breakfast, lunch, and a light snack

Each 5-day Facilitation Academy is designed to provide an authentic and personal learning experience for participants by allowing them to experience the Teacher Course firsthand while also preparing them to facilitate the course with teachers at their site.

Science Overview. The course begins with an exploration of observable traits and their origins. It then digs deeper into the function of DNA and how cells regulate processes — from protein creation to cellular reproduction to the reproduction of an entire organism — and concludes with an exploration of genetic diversity.

Matter Facilitation Academy

For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

http://we-mss.weebly.com/register.html

Cost $1000  Stipend: s breakfast, lunch, and a light snack

Each 5-day Facilitation Academy is designed to provide an authentic and personal learning experience for participants by allowing them to experience the Teacher Course firsthand while also preparing them to facilitate the course with teachers at their site.

Science Overview. The course begins by taking a closer look at the properties and chemical composition of matter. Participants then explore physical and chemical changes, atomic structure, sinking and floating, and a series of common phenomena using different models to explain what they observe and learn.

Teacher Educator Institute - Boston

For Grades: K;1st;2nd;3rd;4th;5th

http://www.eie.org/eie-curriculum/workshops-and-professional-development/workshops

Cost $450  Stipend:

In Boston - If you’re a professional development provider, this workshop prepares you to facilitate EiE professional development workshops for teachers in your school, district, or state. Like all EiE workshops, our Teacher Educator Institute is hands-on and learner-driven. You’ll develop a deep understanding of the pedagogy and structure of the EiE curriculum. And you’ll take away a large collection of valuable resources to help you facilitate your own EiE workshops. During this 2 ½ day workshop, you will
* experience two different EiE units as a learner and as a teacher.
* become familiar with the EiE curriculum, including the structure of the units and the pedagogical approach.
* gain foundational knowledge of technology, engineering, and the engineering design process.
* reflect on the strategies used by your workshop facilitators and the philosophical underpinnings of the EiE curriculum.

Math & Language Arts in the Garden

For Grades: K;1st;2nd;3rd;4th;5th;6th

http://www.lifelab.org/for-educators/workshops/gcworkshops/

Cost $150  Stipend:

Learn to use a school garden to provide a meaningful context in which students can apply their emerging skills in math and English language arts. Using lessons from The Growing Classroom activity guide, participants in this workshop will experience and discuss garden activities that support learning in math and language arts. Whether they are graphing the temperature of their compost pile over time; reading a recipe to make fresh salsa; writing a story from the perspective of an ant; or presenting to a buddy class on the animals that visited their sunflower patch, the opportunities for children to practice traditional academic subjects in the garden are limitless! 1 semester of graduate education credit available.

FEAST -Fun Exchanges & Activities for Science Teachers

For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

http://www.chabotspace.org/feast.htm

Cost FREE  Stipend:

(9am - 12pm) - NGSS – Best Shared Practices in your Classroom– Share Your Best! - Free for Educators (must register in advance) - Have you been looking for new, exciting, teacher-tested ideas for your science classroom? Perhaps you’ve wanted to connect with others on science resources, safety in the lab or how other teachers manage certain science demonstrations and activities? Or maybe you simply want to network with and build relationships with other local science educators.

We're here to help you find the science resources you're looking for. Email us at CRS@crscience.org
Exploring Phenomena: Using Science to Figure Things Out

For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th


Cost $110

Stipend:
The NGSS require a shift from “learning about” to “figuring out.” How did the Grand Canyon form? “Where did the mass of the apple go when I threw it in the compost?” These questions about real-world phenomena are great examples of how science can be used for figuring things out. In this workshop attendees will participate as learners in a phenomenon-based lesson, then unpack the experience with fellow educators. Participants will gain strategies to help choose phenomena and craft essential questions that can guide students to figure things out about the real world.

This workshop is designed for K-12 educators, instructional coaches, and administrators. Participants will receive resources and materials on how to use phenomena in their own science notebooks and how to further incorporate science notebooking into their classroom.

Webinar: Bird Identification and eBird

For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

http://www.birdsleuth.org/free-webinars/

Cost FREE

Stipend:
3:00 PM PST With Global Big Day around the corner, discover how you can help kids become citizen scientists! Identifying birds and contributing observations to databases like eBird can kick start a lifelong passion for birds. Discover our newest resource around bird ID and learn how to participate in the world’s largest day of birding, Global Big Day.

In this webinar, educators will:
Understand the concept of citizen science and how it can help meet STEM learning goals. Develop basic techniques for teaching bird identification.
Explore citizen-science data through an educator’s perspective.
Learn how to participate in Global Big Day and the eBird project.

Webinar: Bird Identification and eBird

For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

http://www.birdsleuth.org/free-webinars/

Cost FREE

Stipend:
5:00 PM PST With Global Big Day around the corner, discover how you can help kids become citizen scientists! Identifying birds and contributing observations to databases like eBird can kick start a lifelong passion for birds. Discover our newest resource around bird ID and learn how to participate in the world’s largest day of birding, Global Big Day.

In this webinar, educators will:
Understand the concept of citizen science and how it can help meet STEM learning goals. Develop basic techniques for teaching bird identification.
Explore citizen-science data through an educator’s perspective.
Learn how to participate in Global Big Day and the eBird project.

Hiking Leadership Training

For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

http://www.bawt.org/programs/training/leadership-training/hiking-leadership-training/

Cost $10 - includes lunch and snacks

Stipend:
The Hiking Leadership Training (HLT) is designed to train teachers and youth workers how to plan, organize, and lead fun and safe hikes with youth. Novice and experienced hikers will gain new leadership and facilitation skills. Some of the topics covered during the training include: fun games for the trail, leave no trace, the natural history of open spaces, risk management, meal planning, navigation, and more. Registration for this course includes snacks and lunch. Participants are expected to wear footwear appropriate for hiking. Bay Area Wilderness Training can provide boots upon request.

Participants are not expected to buy new clothing for this training. The HLT is a partnership program between Bay Area Wilderness Training and the Santa Clara Valley Open Space Authority

Time: 9:30am to 3:30pm
Location: South Bay open space preserves

NGSS@ACOE Science Showcase

For Grades: K;1st;2nd;3rd;4th;5th

https://www.eventbrite.com/o/acoe-core-learning-team-6478769131

Cost Free

Stipend:
We're here to help you find the science resources you're looking for. Email us at CRS@crscience.org

Printed: 3/5/2018  Professional Development
Lameda County Office of Education has instituted a unique cohort design that establishes science study teams to spearhead the implementation of the Next Generation Science Standards (NGSS). Teachers, coaches, and administrators from across the entire County of Alameda have taken a deep dive into the Next Generation Science Standards through monthly collaboration. Through this system of supports, our educators have implemented instructional and pedagogical strategies that promote science literacy for all students. We invite all of our Alameda County educators (teachers, administrators, and instructional coaches) to our Science Showcase 2018.

5/15/2018 - 5/17/2018 Reflecting on Practice Coaching Workshop California Academy of Sciences
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
https://www.calacademy.org/educators/reflecting-on-practice-coaching-workshop
Cost $250 Stipend: scholarships are available
May 15 - 17, 2018 (9:00am - 5:00pm). Must attend all three days.
We are pleased to offer a Reflecting on Practice Coaching Workshop, designed by educational researchers from Lawrence Hall of Science and led in collaboration with the California Academy of Sciences. Reflecting on Practice is a modular professional learning program, specifically designed for informal educators, environmental educators, and interpreters. The workshop familiarizes leaders with a nationally field-tested curriculum for advancing informal education, and building an organizational culture of reflective practice and incorporating research on learning into everyday work experiences.

5/19/2018 Bring NGSS to Life!: Engineering in the K-5 Classroom Bay Area Discovery Museum
For Grades: K;1st;2nd;3rd;4th;5th;PK
http://bayareadiscoverymuseum.org/educators/professional-development/
Cost $150 / $75 for Title 1 Teachers Stipend:
Learn how the Bay Area Discovery Museum School Programs Team plans award winning NGSS aligned lessons that engage and inspire young scientists and engineers in schools all around the Bay! In this hands-on workshop designed for K-5 educators, participants will learn a design process ideal for bringing engineering to their elementary students, engage directly with a model engineering lesson, and work collaboratively with museum educators and colleagues to plan and share NGSS aligned lessons to immediately bring back to the classroom.

For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://www.makerfaire.com/
Cost $45-55 Stipend:
Maker Faire is the Greatest Show (and Tell) on Earth—a family-friendly festival of invention, creativity and resourcefulness, and a celebration of the Maker movement. art science fair, part county fair, and part something entirely new, Maker Faire is an all-ages gathering of tech enthusiasts, crafters, educators, tinkerers, hobbyists, engineers, science clubs, authors, artists, students, and commercial exhibitors. All of these “makers” come to Maker Faire to show what they have made and to share what they have learned. Usually there are free or discounted educator tickets. Look early.

5/21/2018 Webinar: Summer 1- (May 21 - July 1, 2018) - Online PD American Museum of Natural History
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://learn.amnh.org/
Cost $549 discount if register early Stipend:
Summer 2018 - Session 1 - May 21 - July 1, 2018

June 2018

6/2/2018 Design Challenge Learning and 21st Century Skills The Tech Museum of Innovation
For Grades: 4th;5th;6th;7th;8th
https://www.thetech.org/education/for-teachers/design-challenge-learning
Cost $138 Stipend:
Get introduced to the engineering design process and find out how to facilitate these lessons in ways that emphasize 21st century skills — collaboration and teamwork, creativity and imagination, critical thinking and problem solving concrete for the students. Online follow-up session to be scheduled for August 2018.

6/2/2018 Hiking Leadership Training Bay Area Wilderness Training
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://www.bawt.org/programs/training/leadership-training/hiking-leadership-training/
Cost $10 - includes lunch and snacks Stipend:

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Printed: 3/5/2018 Professional Development
The Hiking Leadership Training (HLT) is designed to train teachers and youth workers how to plan, organize, and lead fun and safe hikes with youth. Novice and experienced hikers will gain new leadership and facilitation skills. Some of the topics covered during the training include: fun games for the trail, leave no trace, the natural history of open spaces, risk management, meal planning, navigation, and more. Registration for this course includes snacks and lunch. Participants are expected to wear footwear appropriate for hiking. Bay Area Wilderness Training can provide boots upon request. Participants are not expected to buy new clothing for this training. The HLT is a partnership program between Bay Area Wilderness Training and the Santa Clara Valley Open Space Authority.

Time: 9:30am to 3:30pm
Location: South Bay open space preserves

6/7/2018  In the Air - Exploratorium Bay Area Maker Educators
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th;PK;TK
https://www.eventbrite.com/o/maker-educators-7302573677
Cost  free  Stipend:
6:00 PM – 8:00 PM - As we launch into a new summer show, come play with air and prototype containment contraptions for air.

6/10/2018 - 6/16/2018  Forestry Institute for Teachers - Plumas County Forestry Institute for Teachers
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://www.forestryinstitute.org/
Cost  $25 registration fee  Stipend: Housing and meals provided
The Forestry Institute for Teachers is high-quality professional development that provides cross-curriculum (Math, Language Arts, Science, History, etc.) training that emphasizes and models Common Core and Next Generation Science Standards while examining current forestry issues.

6/18/2018  2018 Summer Teacher Institute - Deadline 3/16 Exploratorium
For Grades: 6th;7th;8th;9th;10th;11th;12th
https://www.exploratorium.edu/education/teacher-institute/summer
Cost  free  Stipend:  $2500
(June 18 to July 6, 2018.) Three-week institutes focusing on physics, middle school–high school general science, life science, and mathematics for teachers new to the Exploratorium Teacher Institute. These institutes support the content and pedagogy described in the National and California State Standards. After completing one of these three-week professional development institutes, you become an alumnus of the Teacher Institute and are eligible to attend alumni institutes and workshops. The library also becomes available for project research.

6/18/2018  Spark Early Education STEM (SparkEES) Summer Fellowship Ignited
For Grades: 2nd;3rd
https://www.igniteducation.org/teachers/become-a-sparkees-fellow/
Cost  Free  Stipend:  Earn up to $2,500
SparkEES is a new paid opportunity for 2nd and 3rd grade teachers to experience innovative workplaces and collaborate with other educators to prototype excellent STEM teaching. SparkEES is one of ten programs selected nationally to advance active STEM learning in early education. No prior STEM experience needed! Selected teachers will:
* Gain in-depth experience at a leading STEM workplace in the Bay Area
* Collaborate with other teachers to design new teaching strategies and content
* Test and iterate on new approaches before returning to their classes
* Conduct peer observations and build plans to create cultures of active STEM learning
* Participate in one of two summer sessions, then 1-2 hours a month during the school year
Session A: 6/18 – 7/6
Session B: 7/16 – 8/3

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Printed: 3/5/2018  Professional Development
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<thead>
<tr>
<th>Date</th>
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<th>Organizing Entity</th>
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<tbody>
<tr>
<td>6/19/2018</td>
<td>Computer Science Fundamentals for K-6 educators</td>
<td>Contra Costa County Office of Education</td>
<td>K;1st;2nd;3rd;4th;5th;6th</td>
<td>$20</td>
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<td>6/20/2018</td>
<td>School Food &amp; Garden Tour</td>
<td>Life Lab Science Program</td>
<td>K;1st;2nd;3rd;4th;5th;6th;7th;8th</td>
<td>$150?</td>
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<td>6/18/2018</td>
<td>School Garden Training</td>
<td>Occidental Arts and Ecology Center</td>
<td>K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th</td>
<td>$950 discount for more than one</td>
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<tr>
<td>6/21/2018</td>
<td>The Growing Classroom: Intro. to Garden Based Learning</td>
<td>Life Lab Science Program</td>
<td>2nd;3rd;4th;5th;6th</td>
<td>$300</td>
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<td>6/17/2018</td>
<td>Biodiversity Academy</td>
<td>Smithsonian</td>
<td>K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th</td>
<td>$2,500</td>
<td>includes the cost of materials &amp; bre</td>
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<tr>
<td>6/19/2018</td>
<td>Wilderness Leadership Training Tahoe National Forest</td>
<td>Bay Area Wilderness Training</td>
<td>K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th</td>
<td>$300-995</td>
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</tbody>
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Printed: 3/5/2018  Professional Development
The Wilderness Leadership Training (WLT) is a five day intensive entry-level backpacking course at the heart of BAWT’s programs. It is designed to give you the tools you need to lead youth on multi-day backpacking adventures. After completing the course, you will gain full access to our gear libraries. The Wilderness Leadership Training consists of a pre-trip meeting and five days of backpacking in the Sierra Nevada Mountains. Skills learned include: clothing requirements, nutrition, equipment use, map and compass reading, basic wilderness first aid, leadership styles, group dynamics and more. Role playing exercises are used to give participants a realistic backcountry leadership experience. Food and transportation are provided and no previous experience is necessary. Cost: Fees for the WLT are on a sliding scale. Please choose the appropriate registration fee by selecting your agency’s annual budget (total support and revenue for the past fiscal year.) Please note: Training costs for one individual are waived for organizations in exchange for the use of a 15-person passenger van.

$199,999 and under — $195.00 or $200,000-$999,999 — $295.00 or $1,000,000+ — $395.00 or Unaffiliated Individual — $695.00

If financial constraints prohibit you from signing up for the WLT, please consider applying for the full tuition Amy Chamberlain Scholarship Fund. For more information please contact us at programs@bawt.org.

6/17/2018 - Forestry Institute for Teachers - Tuolumne County
6/23/2018
For Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://www.forestryinstitute.org/

Cost $25 registration fee  Stipend:  meals and housing provided

The Forestry Institute for Teachers is high-quality professional development that provides cross-curriculum (Math, Language Arts, Science, History, etc.) training that emphasizes and models Common Core and Next Generation Science Standards while examining current forestry issues.

The Forestry Institute for Teachers is a multi-day residence workshop developed by the Northern California Society of American Foresters, University of California Cooperative Extension, Shasta County Office of Education, The California Department of Forestry and Fire Protection, and Project Learning Tree. The FIT Program is underwritten by a consortium of public and private sources. Since 1993, over 2,600 teachers have graduated from the program.

The goal of FIT is to provide K-12 teachers with knowledge, skills and tools to effectively teach their students about forest ecology and forest resource management practices using award winning environmental education curriculum; Project Learning Tree and Project WILD. The program brings together natural resource specialists and teachers from rural and urban settings for one week, working side by side to gain a deeper understanding of forest ecosystems and human use of natural resources.

FIT is highly regarded professional development program that emphasizes California Department of Education Content Standards including Common Core and Next Generation Science Standards.

6/27/2018
For Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
https://orias.berkeley.edu/professional-development/orias-summer-institutes-teachers

Cost FREE  Stipend:  CEU available

The 2018 Summer Institute for k-12 teachers will explore the interplay between built spaces, individuals, communities, and institutions. Our program will begin with recent research into how the human brain interacts with physical spaces. From there, participants will learn about a global sampling of built environments, considering spaces from perspectives such as visual arts, religious traditions, anthropology, and building technologies.

Teachers who wish to receive professional development credit will be expected to attend an extended afternoon session, during which they will work to modify an existing classroom unit to incorporate new content. Teams of teachers are encouraged to attend and build curriculum together.

6/24/2018 - The Edible Schoolyard Academy - apply by 3/11
6/28/2018
For Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://edibleschoolyard.org/training%20

Cost $650 - scholarships available  Stipend:  breakfast and lunch for four days, a

We are over the course of the Academy, participants will have an opportunity to learn about curriculum integration and development, funding strategies, volunteer management, class scheduling, rituals and routines of garden and kitchen classrooms, outreach strategies, and much more. Participants will leave the Academy with garden and kitchen lessons linked to academic standards, tools for developing programs in their own communities and strategies to strengthen existing programs, and an in-depth understanding of how the Edible Schoolyard operates on a daily basis. Finally, participants join a network of people all over the world who are engaged in bringing edible education programs to their communities.

6/29/2018
For Grades:  4th;5th;6th;7th;8th;9th;10th;11th;12th
http://www.tsgc.utexas.edu/liftoff/

Cost $750 registration fee + travel to Houston, Texas  Stipend:

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Printed:  3/5/2018  Professional Development
The 2018 LiftOff Summer Institute is a weeklong training event sponsored by NASA’s Texas Space Grant Consortium and held at NASA’s Johnson Space Center in Houston. The theme is “Reach New Heights, Reveal the Unknown, Benefit All Humankind.” The event will celebrate all that NASA has contributed and the engineering behind its accomplishments. Applicants must be U.S. citizens currently employed as classroom teachers of grades 4-12, with at least one year teaching experience prior to the institute.

6/24/2018 - 6/29/2018
The Greater Good Science Center Summer Institute for Educators 2018
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th;PK;TK
https://ggsc.berkeley.edu/what_we_do/event/summer_institute EDUCATORS 2018
Cost $2,400
Stipend: some scholarships
The Greater Good Science Center’s Summer Institute for Educators provides education professionals from all over the world the opportunity to expand their knowledge of the science of prosocial human development and, most importantly, to learn how the practical application of this science can be used to help them build classrooms and schools where both the students and adults thrive and where education becomes about more than just test scores and future job skills. $2,400, WHICH INCLUDES TUITION, LODGING, MOST MEALS, AND MATERIALS. LIMITED PARTIAL SCHOLARSHIPS ARE AVAILABLE.

6/25/2018 - 6/29/2018
School Garden Training
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://oaec.org/courses/school-garden-teacher-training/
Cost $950 discount for teams
Stipend: meals and housing provided
This five-day intensive residential training offers hands-on skills and theoretical approaches to promote and support the creation of school gardens. The course will focus on integrating the school garden into all curricula and state standards, as well as exploring nutrition, recycling, project-based learning, art, team building, and fundraising. This course is designed for teams of teachers, parents, administrators, and volunteers who have a relationship with a specific school and wish to create or improve a school garden. Involvement in the training entitles participating teams to school garden curricula, an extensive resource binder, two skills workshops, and follow-up site visits by OAEC staff at schools throughout the following year.

July 2018

7/1/2018 - 7/7/2018
Forestry Institute for Teachers - Shasta County
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://www.forestryinstitute.org/
Cost $25 registration fee
Stipend: meals and housing provided
The Forestry Institute for Teachers is high-quality professional development that provides cross-curriculum (Math, Language Arts, Science, History, etc.) training that emphasizes and models Common Core and Next Generation Science Standards while examining current forestry issues. The Forestry Institute for Teachers is a multi-day residence workshop developed by the Northern California Society of American Foresters, University of California Cooperative Extension, Shasta County Office of Education, The California Department of Forestry and Fire Protection, and Project Learning Tree. The FIT Program is underwritten by a consortium of public and private sources. Since 1993, over 2,600 teachers have graduated from the program. The goal of FIT is to provide K-12 teachers with knowledge, skills and tools to effectively teach their students about forest ecology and forest resource management practices using award winning environmental education curriculum; Project Learning Tree and Project WILD. The program brings together natural resource specialists and teachers from rural and urban settings for one week, working side by side to gain a deeper understanding of forest ecosystems and human use of natural resources. FIT is highly regarded professional development program that emphasizes California Department of Education Content Standards including Common Core and Next Generation Science Standards.

7/9/2018
Webinar: Summer 2- (July 9 - August 19, 2018) - Online PD
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://learn.amnh.org/
Cost $520
Stipend: PD Hours, Grad Credit, and School
Summer Session 2 - July 9 - August 19, 2018
Climate Change, Earth: Inside and Out, Evolution, In the Field with Spiders, Water, Genetics, Genomics, Genethics, The Diversity of Fishes, Space, Time and Motion

7/1/2018 - 7/11/2018
Educator Academy in the Amazon Rainforest
For Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
http://amazonworkshops.com/educator-academy/
Cost $2495 land only must add airfare
Stipend: PD Hours, Grad Credit, and School
We’re here to help you find the science resources you're looking for. Email us at CRS@crscience.org
Printed: 3/5/2018 Professional Development
| Date Range          | Event Title                                                        | Regional Location                      | Location Details                                                                                                                                                                                                                                                                                                                                 | Cost/Stipend |
|---------------------|--------------------------------------------------------------------|----------------------------------------|                                                                                                                                                                                                                                                                                                                                                  |             |
| 7/8/2018 - 7/12/2018 | Concepts, Core Ideas, and Practices: NGSS in the Sierra Nevada     | California Institute for Biodiversity  | Explore the southern side of Yosemite National Park with scientists and K-12 educators during this 4-day adventure. We will start with the three dimensions of the Next Generation Science Standards, and use them as the basis for learning about the natural history of this area, including Mariposa Grove and stargazing on the top of Sentinel Dome. The goal is to empower educators to use any outdoor space to teach rigorous science.              | $349 until 3/31/18; $399 until 4/30/18 | Fees include meals and campsite |
| 7/8/2018 - 7/13/2018 | Coastal Systems Teacher Institute - Level 1                        | Monterey Bay Aquarium                  | Explore the amazing animals of Monterey Bay's marine ecosystems first-hand. With colleagues, Aquarium educators and scientists, you'll conduct your own field investigations, learn to implement science notebooks, and experience how authentic science writing can improve your students' science literacy. With a focus on Systems—one of Next Generation Science Standards' crosscutting concepts—you'll learn how to integrate process skills, science and engineering practices, and technology to get your students excited about protecting the world's oceans. This free institute provides opportunities to:* Engage in inquiry-based activities that support the Common Core State Standards and Next Generation Science Standards.  | FREE         | $50/day CEU's available |
| 7/11/2018 - 7/13/2018 | Teacher Educator Institute - Boston                              | Engineering is Elementary               | In Boston - This workshop prepares you to facilitate EiE professional development workshops for teachers in your school, district, or state. The Teacher Educator Institute is hands-on and learner-driven. You'll develop a deep understanding of the pedagogy and structure of the EiE curriculum. And you'll take away a large collection of valuable resources to help you facilitate your own EiE workshops.  | $450         | Stipend: |             |
| 7/8/2018 - 7/13/2018 | Energy’s Innovations And Implications Academy                     | Smithsonian                             | This year, the Energy’s Innovations and Implications Academy will explore the history of energy development and use in the United States, current energy needs, and alternative energy sources for the future. Topics will include fossil fuels, solar power, wind power, nuclear energy, and alternative energy sources. K-12 teachers will have opportunities to explore the history of Energy as well as learn from experts in the field of energy development who are carrying out research in the greater Washington, DC area. Teachers will develop skills and knowledge to bring back to their students and classrooms. The SSEATs Academies provide teachers with an opportunity to take part in a week-long professional development course behind-the-scenes at Smithsonian museums and other world class research facilities throughout the greater Washington, DC area. The academies help to bridge the gap between the formal science education programs of the SSEC and the informal science education that exists throughout the Smithsonian, and combine training in science pedagogy with content presented by scientists and researchers who are experts in their fields. Tuition for each Academy is $2,000 and includes: Course materials and resources; Accommodations for 5 nights (Sunday – Thursday); Daily continental breakfasts, breaks, and lunches (Monday – Friday); Welcome dinner on Sunday and celebratory dinner later in the week; All local travel (excluding airport transit) | $2,500       | Stipend: includes the cost of materials & bre  |
Forestry Institute for Teachers - Humboldt County

The Forestry Institute for Teachers is high-quality professional development that provides cross-curriculum (Math, Language Arts, Science, History, etc.) training that emphasizes and models Common Core and Next Generation Science Standards while examining current forestry issues.

The Forestry Institute for Teachers is a multi-day residence workshop developed by the Northern California Society of American Foresters, University of California Cooperative Extension, Shasta County Office of Education, The California Department of Forestry and Fire Protection, and Project Learning Tree. The FIT Program is underwritten by a consortium of public and private sources. Since 1993, over 2,600 teachers have graduated from the program.

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FIT is highly regarded professional development program that emphasizes California Department of Education Content Standards including Common Core and Next Generation Science Standards.

Cost $25

Spark Early Education STEM (SparkEES) Summer Fellowship

SparkEES is a new paid opportunity for 2nd and 3rd grade teachers to experience innovative workplaces and collaborate with other educators to prototype excellent STEM teaching. SparkEES is one of ten programs selected nationally to advance active STEM learning in early education. No prior STEM experience required! Selected teachers will:

* Gain in-depth experience at a leading STEM workplace in the Bay Area
* Collaborate with other teachers to design new teaching strategies and content
* Test and iterate on new approaches before returning to their classes
* Conduct peer observations and build plans to create cultures of active STEM learning
* Participate in one of two summer sessions, then 1-2 hours a month during the school year

Session A: 6/18 – 7/6
Session B: 7/16 – 8/3

Cost Free

Concepts, Core Ideas, and Practices: NGSS in the Sierra Nevada

Explore the southern side of Yosemite National Park with scientists and K-12 educators during this 4-day adventure. We will start with the three dimensions of the Next Generation Science Standards, and use them as the basis for learning about the natural history of this area, including Mariposa Grove and stargazing on the top of Sentinel Dome. The goal is to empower educators to use any outdoor space to teach rigorous science.

Cost $349 until 3/31/18; $399 until 4/30/18

Everyone Engineers! - Boston

In Boston - This workshop prepares elementary school teachers to use the EiE curriculum to integrate engineering and science instruction in the classroom. This learner-driven workshop is designed to build your knowledge of engineering and your confidence in teaching it. You’ll get hands-on experience with EiE materials and insights into the most effective strategies for teaching the curriculum. During this two-day, hands-on workshop, you will

* gain foundational knowledge of technology, engineering, and the engineering design process
* become familiar with how EiE curriculum units are structured
* become familiar with EiE’s underlying pedagogical approach
* experience two different EiE units, both as a learner and as a teacher
* reflect on the learning experiences your students will have with EiE
* reflect on the instructional strategies you’ve learned

Cost $250
The conference draws 300-500 formal and informal educators from schools, public aquariums, non-profit NGOs, and government agencies together for five days of learning, sharing, and networking. Scholarships are available.

**The Greater Good Science Center Summer Institute for Educators 2018**

- **Cost**: $2,400, which includes tuition, lodging, most meals, and materials. Limited partial scholarships are available.

**BirdSleuth Educator Retreat 2018**

- **Cost**: $495 + travel & housing

**Splash Zone Teacher Institute**

- **Cost**: Free

**Science Institute for Leadership Development & Strategic Planning**

- **Cost**: $7,000 per 5-person team. 1,500 for each additional individual

**Outdoor Classroom Management**

- **Cost**: $150

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August 2018

7/30/2018 - 8/2/2018  Summer Astronomy Institute: Space Science and the NGSS  Astronomical Society of the Pacific

For Grades:  5th;6th;7th;8th;9th;10th;11th;12th

https://www.astrosociety.org/education/k12-educators/

Cost  $400 (scholarships available!)

Stipend:  Scholarships are Available for Calif his 4-day Institute will cover classroom tested, inquiry-rich activities designed to help students learn the processes of science through the study of Earth and Space Science with explicit alignment to the three dimensions of the Next Generation Science Standards and connections to literacy and the Common Core. Workshop strands include: Astronomy and the NGSS, Tools of the Astronomer, Exploring the Solar System, Cross-curricular Integration, and solar and lunar eclipses. Guest presenters from NASA will also share the latest from various missions, including the Moon and Mars.

Two units of academic credit available through The University of the Pacific. In addition to four days of activities, participants receive The Universe at Your Fingertips 2.0 DVD ($30 value), a set of 24 Galileoscopes ($600 value), materials to help implement classroom investigations, and more!

7/29/2018 - 8/3/2018  Earth’s History & Global Change  Smithsonian

For Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

https://ssec.si.edu/professional-development

Cost  $2500

Stipend:  $2500 includes course materials, accommodations (TBA), daily breakfast and lunch, a Sunday evening reception and orientation, an evening celebratory meal, all local travel (excluding airport transit). There is a $500 discount for those forgoing hotel stay, and other discounts may apply.

7/29/2018 - 8/3/2018  Project-Based Science Teacher Institute  Monterey Bay Aquarium

For Grades:  6th;7th;8th

http://www.montereybayaquarium.org/education/teacher-professional-development

Cost  FREE

Registration Opens January 22, 2018

November 3, 2018; January 26, 2019; and May 4, 2019

Enhance your curriculum with student-driven projects that support Next Generation Science Standards. Project-based science encourages students to ask questions, make meaning from what they learn, and apply knowledge and skills in new contexts. The hands-on, collaborative nature of projects provides a learning experience that models best science-teaching practices and integrates Next Generation Science Standards and the Common Core State Standards. You’ll return to your classroom with skills and materials to employ project-based strategies and engage students in authentic inquiry-based science as they investigate conservation issues connected to their lives and their environment.

FREE $50/day CEU's available

8/4/2018 - 8/5/2018  Camping at the Presidio Training  Bay Area Wilderness Training

For Grades:  K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

http://www.bawt.org/programs/training/leadership-training/camping-at-the-presidio/

Cost  $45

Stipend:  The CAP Leadership Training is designed to provide group leaders with the skills and resources to plan and lead a youth camping trip in the Presidio and beyond. During the two-day, one-night training session, group leaders acquire technical camping skills and become familiar with the Presidio’s natural and cultural resources. They are trained to lead place-based nature hikes and other outdoor activities as well as learn about the process for reserving a camping trip through the CAP program. After participants complete the CAP Leadership Training program, they can begin to prepare for their camping trip to the Presidio’s Rob Hill Campground.

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Printed:  3/5/2018  Professional Development
Temporary & New Science Exhibits Around the Bay Area

Bay Area Discovery Museum

Sausalito

**From Here to There**

*http://bayareadiscoverymuseum.org/exhibits/

How do we move things on land, sea and air? Float on a Hovercraft chair! Move your boat through an authentic canal lock system. Send colored balls zooming through air tubes! Feel the friction! Lift weights with pulleys, levers, pneumatics and hydraulics! Discover the laws of gravity and motion!

Bay Model Visitor Center

Sausalito

**The Night Sky Above Point Reyes & Joshua Tree – Art Exhibition**

*http://www.spn.usace.army.mil/Missions/Recreation/BayModelVisitorCenter/CalendarofEvents.aspx

(March 13 - April 28, 2018) Point Reyes photographer Marty Knapp's new Astro-Landscape Photographs will grace the walls of the Bay Model's lobby during this exhibit. Knapp is known for his iconic land and seascape photography of the Point Reyes National Seashore, but in this show, you will see his newest creations featuring starry skies above Point Reyes, Mount Tamalpais and Joshua Tree National Park locations. His large photographs documenting the vast heavens above glow brightly, filling the viewer with wonder.

California Academy of Sciences

San Francisco

**Planetarium: Expedition Reef: Hope for Corals in a Changing World**

*https://www.calacademy.org/educators/field-trips/coral-reefs

(Opens March 16, 2018) Embark on a journey into the hidden world of coral reefs in this all-digital planetarium show exploring some of our planet's most biodiverse—and critically threatened—ecosystems. Dive into the heart of the Academy's iconic Philippine coral reef tank as thousands of tropical fish flutter by. Travel the globe to explore coral reefs teeming with life and learn how scientists are racing to develop sustainable solutions to protect these vitally important ecosystems for the future. Along the way, discover how corals live, breathe, and reproduce, supporting a quarter of all marine life on Earth and providing critical benefits to human communities in our ever-changing world.

**Giants of Land and Sea**

*https://www.calacademy.org/pterosaurs

(Opening June 15, 2018) Discover the giant forces that make Northern California a landscape like nowhere else in the world. Ascend through the towering redwoods, step inside an immersive fog room, follow a blue whale migration route, and hear from Californians working to sustain the precious and critical ecosystems in their own backyard. Mark your calendars to join us this summer or during the 2018-2019 school year to experience Giants of Land and Sea.

Chabot Space and Science Center

Oakland

**The Curious Lens**

*http://www.chabotspace.org

The Curious Lens is a staff-curated exhibit of photographs submitted by our community members. The exhibit gives a view into how we feel about technology's effect on the world around us. Selected photos will be displayed in the Center from January 16-April 15.

Endangered Species Day

**Endangered Species Day - May 18, 2018**

*www.endangeredspeciesday.org

Endangered Species Day is an opportunity for people of all ages to learn about the importance of protecting endangered species and everyday actions they can take to help protect them.
Junior Center of Art and Science

African American Inventors

http://juniorcenter.org/exhibits/

(February 6 – April 21, 2018) This exhibit will highlight a selection of the many contributions that African-American inventors and scientists have made to American society. The featured inventors are credited with the creation of items we see around us every day such as the traffic light, the elevator, the fountain pen, and much more. Historical and contemporary inventors will be represented.

Legion of Honor

The Future of the Past: Mummies and Medicine


(through August 26, 2018) Ancient Egypt meets modern medicine in this exhibition that uses state-of-the-art scientific techniques to explore two of the Fine Arts Museums' mummies. An interdisciplinary team of scientists, Egyptologists, physicians, and museum curators and conservators has learned more about how these embalmed individuals lived, died, and were prepared for eternity.

Multiverse

Solar Week

http://www.solarweek.org

(March 19-23, 2018)– This spring's Solar Week activities will highlight the ionosphere. In constant motion, this mysterious region of Earth’s upper atmosphere is our interface to space. In 2018, the ionosphere’s secrets will be probed by two NASA satellite missions, GOLD and ICON.

Oakland Museum of California

J.B. Blunk: Nature, Art & Everyday Life

http://museumca.org/exhibit/j-b-blunk-nature-art-everyday-life

(April 21–August 26, 2018) Discover northern California’s best kept secret in design and craft: J.B. Blunk (1926–2002), a mid-century artist whose connection to nature governed his daily life. Inspired by Japanese philosophies of nature and art’s inseparability, and influenced by rural utopian communities, Blunk’s muse and often his source of materials was the beautiful natural environment of Inverness, California. Blunk’s home property was his ultimate work of art, filled with his handcrafted furniture, ceramics, sculptures, and other functional objects used by his family. His remarkable craftsmanship also took the form of large-scale public works of art, including The Planet, a redwood sculpture commissioned by the Oakland Museum of California in 1969. J.B. Blunk: Nature, Art, & Everyday Life brings together a comprehensive survey of the artist’s works. See northern California’s landscape anew through Blunk’s eyes, and get inspired to find the beauty of nature and art in your own daily life.

Take Root: Oakland Grows Food

http://museumca.org/exhibit/take-root-oakland-grows-food

(December 16, 2017–January 13, 2019) Unearth Oakland’s multi-layered world of food in Take Root: Oakland Grows Food, an exhibition exploring the ecological and cultural factors of how and why food is grown in Oakland. Enjoy this hands-on exhibition with the entire family to understand what factors determine where, how, why, and what is grown throughout the city. Hear personal stories from farmers and growers within the community, see compelling illustrations and maps, and meet the diverse flavors of Oakland. Learn what motivations Oaklanders have for growing food—including access to healthy and delicious ingredients, environmental and social justice values, or simply the joy of tending a garden. Visitors are invited to share personal stories, explore interactive activities, and gain a deeper understanding of Oakland’s agriculture.

Oakland Zoo

California Trail Opening Summer 2018

http://www.oaklandzoo.org/california-trail

Oakland Zoo is pleased to present California Trail, an exciting new exhibit that helps you explore of our state’s natural past, present, and future. This state is our home, and we encourage you to be inspired by its natural wonder. Currently the gondola and The Landing Café are open. The animal exhibits and the rest of California Trail will open summer 2018.

Points of Light
National Volunteer Week -April 15-21, 2018
http://www.pointsoflight.org/signature-events/national-volunteer-week
National Volunteer Week is about inspiring, recognizing and encouraging people to seek out imaginative ways to engage in their communities. By working together, we have the fortitude to meet our challenges and accomplish our goals.

Randall Museum
Randall Museum Re-Opens
http://www.randallmuseum.org/
(Re-Opened February 2018) The Randall Museum is a natural history museum, science museum and arts center in one, offering hands-on learning through exhibits and classes in science, nature and art to all ages. The museum has many fun things to do with kids and adults alike, including live animal encounters and drop-in activities.

SF Botanical Garden & Strybing Arboretum
Art Exhibit: Looking Closely: The Hidden World of Mushrooms and Lichens
http://www.sfbotanicalgarden.org/library/art-exhibit.html
(January-April, 2018) Sonoma County artist Lucy Martin's gouache and watercolor paintings focus on the often-overlooked beauty of the forest floor. Each painting begins with a walk in the forest, collecting mushrooms along with the lichens, mosses, decaying leaves, cones, bark, and twigs around them. Back in her studio, Martin uses layer upon layer of dense color to create small, closely focused landscapes that are highly detailed and scientifically accurate.

The Crucible
The Science of Art - Spring Open House
https://thecrucible.org/events/
Saturday, March, 31, 2018 • The Science of Art is an event to feature the scientific principals, processes, and materials behind the fine and industrial arts processes taught at The Crucible. The event brings together Crucible faculty, guest artists, schools and universities, local art and science related organizations for a family-friendly day of demonstrations, special performances, art exhibitions, food and fun. Our goal is to demystify the connections between art and science and to further understand the world in which we live.

The Tech Museum of Innovation
Body Worlds Decoded
http://www.thetech.org/bodyworldsdecoded
We’ve put a Silicon Valley twist on the incredible plastinated human bodies that have sparked curiosity and awe around the world, and we can’t wait to share it with you and your students. As your students wander through this expansive gallery, they’ll explore the smallest organs to the most complex systems, including nervous, respiratory, cardiovascular, urinary, reproductive, digestive and locomotive. Using Iris, The Tech’s custom augmented reality device, and other emerging technologies, Body Worlds Decoded allows students to see and explore the human body like never before. Body Worlds Decoded is included with general admission. A Body Worlds Decoded field trip fact sheet is available for you to send home to parents or guardians giving them information on what their child will see and experience in the exhibition.

University of California Berkeley
Cal Day Open House - April 21, 2018
http://calday.berkeley.edu/
From Astronomy to Zoology, explore the wonders of science! There are a huge range of activities for adults and families. Tour the Berkeley Natural History Museums (Valley Life Sciences Building) and Berkeley's renowned research labs. Arrive early to register for a place on a Museum of Paleontology tour! Tour the Space Sciences Laboratory, Lawrence Hall of Science and the Botanical Garden (take Hill Shuttle from Evans Hall east entrance). Meet Cal scientists at numerous talks and hands-on presentations.