



# SCHOOL RESOURCE NEWS

A NEWSLETTER ON RESOURCE CONSERVATION TOPICS IN SAN MATEO COUNTY

ISSUE NO. 18, 2017-2018



## Dear Teachers and Administrators,

Thank you for all you do! The students in San Mateo County are lucky to have you as educators! Over the past 10 years, many of you have partnered with us on school-wide waste reduction projects and classroom activities, and most recently some of you even went so far as to help your students earn a Green Star School ([www.greenstarschools.org](http://www.greenstarschools.org)) certification for their

classroom. Thanks to your passion and dedication, we were able to reach over 5,000 students and educators across San Mateo County in the last school year alone.

For those of you who are not yet familiar with the County of San Mateo Office of Sustainability (OOS) Schools Program, we offer a variety of resources and assistance to educators who are “greening” their schools, classrooms, and curricula. For starters, we provide this newsletter every year, which contains an up-to-date collection of local environmental education providers. These providers, including our Schools Program, offer teacher-training workshops, field trips, lessons, classroom presentations, and school assemblies.

In addition to this newsletter, we have a brand new website at [www.smcsustainability.org/waste-reduction/education-schools](http://www.smcsustainability.org/waste-reduction/education-schools). We were formerly known as RecycleWorks, and recently merged with the County Office of Sustainability. This merger has been a great opportunity for us to access the expertise of our colleagues in other sustainability topics such as water and energy conservation, and safe and healthy alternative transportation. We hope you take advantage of our free services and explore our website for links to environmental education literature, curricula, and grant opportunities for your classroom, school, and community.

Please reach out to us with questions and suggestions at the email address and phone number to the right. We are looking forward to working with you throughout the 2017-2018 school year!

Sincerely,

**The OOS Schools Team**



Office of Sustainability 4R's Assembly Presentation



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## OFFICE OF SUSTAINABILITY IS HERE TO HELP

County of San Mateo Office of Sustainability Schools Program can provide free resources, assistance, presentations and trainings.

Contact us at:  
650-599-1424,  
or email:  
[sustainability@smcgov.org](mailto:sustainability@smcgov.org)



# GREENING SCHOOLS

## OPPORTUNITY AWAITS



### Green Star School: Certify Your Classroom

Through the Green Star Schools (GSS) program, teachers have the opportunity to certify their classroom as being “green” through several sustainability pathways, including transportation, water, energy, waste, and healthy school yards. This program makes it easy for teachers to integrate environmental project-based learning (PBL) lessons into their curriculum, and to count those lessons as “actions” toward a GSS certificate. The GSS interactive website provides tools for teachers and students to calculate the carbon dioxide (CO2) emissions reduction that results from implementing classroom conservation projects. Starting this year, GSS is providing opportunities for entire schools to earn a GSS certificate, by working with teachers and administrators to develop and implement an action plan. For more information about this exciting program, please go to [www.GreenStarSchools.org](http://www.GreenStarSchools.org).



Example Certificate



## LEGISLATION

### California Good Samaritan Food Donation Act

**Have you seen food that could have been eaten, but was instead thrown out as trash?**

Billions of pounds of food are sent to the landfill each year, coming from farms, homes, restaurants, and schools alike. Yet, according to the Food and Agricultural Organization of the United Nations, as much as 40% of that food would have otherwise been edible. Much of this edible food is discarded because it is not marketable, due to appearance, age, size, surplus, etc., not because it is unsafe and unhealthy to eat.

**What can we do at school?**

Composting is a great way for schools to prevent waste from entering the landfill, when they have tons of food scraps coming out of the cafeteria during lunch. Using compostable and reusable utensils and flatware can also dramatically reduce the amount of waste sent to the landfill. But when a school has edible leftover food like whole apples, bananas, and pizza, there are even better options. For example, a school could have a share table or donate the edible food to a local food bank or shelter.

The USDA offers additional options on their webpage for reducing food waste at school: <http://bit.ly/1K11gc8>.

**What about the issue of liability for donating or sharing food?**

Fortunately, schools are protected by federal and state laws. Back in 1996, Congress passed the Bill Emerson Good Samaritan Food Donation Act (HR 2428) to encourage food and grocery donations to distribute to the needy. This Act protects persons\*, gleaners\*\*, and nonprofit organizations from civil and criminal liability for illness or injury experienced by recipients of their donated food. In the last 21 years since its enactment, there have been no lawsuits filed against food donors. Schools in San Mateo County are also protected by California’s Good Samaritan Food Donation Act of 1977. This act was recently updated and officially approved on October 10, 2017 as AB 1219, which expanded donor protections by amending the state Civil Code, Food and Agricultural Code, and Health and Safety Code.

To learn more about HR 2428, visit: <http://bit.ly/1ww1zc4>

To learn more about AB 1219, visit: <http://bit.ly/2miz4Qt>

\*Person: an individual, school, local educational agency, etc.

\*\*Gleaner: a person who harvests crops or produce for free distribution to the needy, or for donation to a nonprofit organization for ultimate distribution to the needy, an agricultural crop that has been donated by the owner.



## Recycling at School

### Computers and Electronics

Goodwill and St. Vincent de Paul donation sites in San Mateo County accept working computer equipment for reuse, and Crown Computer Recycling and Green Citizen accept non-working computers and electronics for recycling, free of charge. To find donations sites throughout San Mateo County use the recycling search engine at [www.recyclestuff.org](http://www.recyclestuff.org) or call us at 1-888-442-2666.

### Desks and Chairs

Is your school or district accumulating broken desks and chairs? If so, don't throw them away! Sims Metal in Redwood City will take them and recycle the reusable metals from them. Call Sims Metal at (650) 369-4161.

### Batteries and Fluorescent Lights

It is illegal to dispose of these items in your trash. For information on how to properly get rid of these items, call (650) 372-6200 or

[www.flowstobay.org/toxic](http://www.flowstobay.org/toxic).

### Lost and Found Items

At the end of the semester most schools accumulate a large amount of lost and found items such as clothing, lunch bags, toys, and books that are never claimed. These items can be donated to benefit a local charity. To find a list of charities in San Mateo County, use the recycling search engine at [www.recyclestuff.org](http://www.recyclestuff.org). If you have trouble finding a charity near you can also call us at 1-888-442-2666.

### Books

Visit [www.recyclestuff.org](http://www.recyclestuff.org) and use the recycling search engine to find locations in San Mateo County where you can donate books in good condition. Damaged or outdated softcover books can be recycled at your school site in your mixed paper recycling bins.

### Free Technical Assistance

Schools Program staff can give your school or staff free technical assistance to implement or expand your school recycling and/or composting program. Contact us at [gschwartz@smcgov.org](mailto:gschwartz@smcgov.org) to get started.



Preschooler Recycling Paper in his Classroom.

## Reuse Centers

There are several organizations in the area that collect a wide variety of manufacturing byproducts, overruns and other scrap materials, and then redistribute them to schools and community groups for reuse. Many of these materials are great for science and art projects! Visit the following local reuse centers:

- » Resource Area for Teaching (RAFT), Redwood City; (650) 802-5505, [www.raft.net](http://www.raft.net).
- » Scroungers Center for Reusable Art Parts (SCRAP), San Francisco; (415) 647-1746, [www.scrap-sf.org](http://www.scrap-sf.org).

## Surplus Property Sales

The public can purchase leftover office furniture, computers and office equipment from the County of San Mateo. Visit [www.smcsustainability.org/waste-reduction/reduce-reuse-recycle/#surplusproperty](http://www.smcsustainability.org/waste-reduction/reduce-reuse-recycle/#surplusproperty) to view the items available for purchase in-person and through the online auction.

**Find a Recycler for...** (e.g. Aluminum, computer, electronics)

6 results are found

7 results are found

Find this search tool at [www.recyclestuff.org/](http://www.recyclestuff.org/)



## Second Graders Take Action at Arundel Elementary

How do you get your elementary school to start a recycling campaign? Have your second graders take the lead! Thanks to Mrs. Moreci's 2nd grade class, this is just what Arundel Elementary School did at their campus in San Carlos.

It all started in the classroom, where the 2nd graders learned about the importance of conserving resources and protecting the environment. Feeling inspired, they made a commitment to improve recycling on campus and to compost leftover food in the cafeteria and paper towels in their classroom. They created posters, signs, songs, and poems to share with other students across campus, to turn their inspiration into actions to “green” their school and community. To tie it all together, these proactive 2nd graders taught their fellow students how to properly recycle and compost on campus through schoolwide assemblies and good old fashioned “word of mouth.”

Their efforts also led their classroom to become Green Star Schools certified. Congratulations to Mrs. Moreci's 2nd graders for making a difference!



Students Perform a Recycling Poem at a District Board Meeting

## Kindergarten Champions at Lomita Park Elementary

Shout out to the kindergartners at Lomita Park Elementary School in San Bruno! With the guidance of their teachers Mrs. Orlando and Mr. Greeno, these students helped “Save the Earth,” and earned Green Star Schools certification for their classroom.

The students were able to reach these achievements by taking the following actions:

1. Through stories, songs, and poems, and a guest speaker from the Office of Sustainability, students learned about the importance of recycling to help conserve resources for plants and animals and humans sharing the Earth.
2. Students assessed their classrooms and lunch areas and determined that not enough plastic containers were being recycled.
3. To fix this, they labelled the recycling bins and made signs to remind each other what to recycle in the lunch area and in their classrooms.
4. They encouraged the younger students – the transitional kindergartners – to also recycle during lunchtime and in the classroom.
5. To complete their certification, they shared their success story and performed a recycling poem to the Millbrae School District Board to inspire their community.



Earth Day Poster Created by Mrs. Moreci's Students

To learn more about the Green Star Schools program, please visit [www.GreenStarSchools.org](http://www.GreenStarSchools.org).

To learn more about starting a waste reduction campaign at your school, please contact [sustainability@smcgov.org](mailto:sustainability@smcgov.org).



## Buri Buri Goes Green with Lunch Composting

The trailblazing teacher Mrs. Chris Stone led her eager 5th grade students on an adventure to start an all-new composting program for their cafeteria, turning organics from their school lunch waste into compost. Students began their project by developing a plan to gather information and to ultimately gain support for their composting project. They made three important presentations: 1) to the sustainability manager of their local hauler South San Francisco Scavenger, who advised them on best composting practices; 2) to their custodian, to get his input and approval; 3) to the principal, who approved their final plan. By the end of the school year, the 4th and 5th graders were able to set up compost pails in the cafeteria and practice collecting leftover fruits and vegetables during their lunch. The organics in these pails were then deposited into the school's backyard composting bins to undergo decomposition and be made into compost.

This year's new batch of 5th graders is picking the program back up. Mrs. Stone is teaching them about composting in class while they practice collecting leftover fruits and vegetables (organics) at lunch again. The students are so excited about the potential for their program that they are working on a script for an educational training video that will teach all Buri Buri students what to do in the cafeteria. They are looking forward to expanding their composting program this January to all grade-level lunches and sending the organics to a commercial composting facility via their local hauler, South San Francisco Scavenger.

Way to go 5th graders!! We (the Office of Sustainability) are looking forward to seeing you expand this program!!



Compost Pails from the Cafeteria feed the Backyard Compost Bins

## Students say YESS at Woodside High School in Redwood City

Last spring, Woodside High School's science teacher Ms. Ann Akey led her Green Academy chemistry students in the second year of Youth Exploring Sea level rise Science (YESS).

Using the YESS curriculum, Ms. Akey introduced her students to the basics of sea level rise in the context of their larger unit on climate change. Their lessons were hands-on, focusing on the thermal expansion of water and the difference between melting land ice versus sea ice. Students also explored the impact of thermal expansion (sea level rise) through the Our Coast Our Future flood mapping tool. Then, the students went on their YESS field trip to Cooley Landing in East Palo Alto, where they restored wetlands as part of a living art installation facilitated by Grassroots Ecology, [www.grassrootsecology.org](http://www.grassrootsecology.org). In the following weeks, students culminated their YESS program experience by playing the Game of Floods guided by staff from the Office of Sustainability. This game provided students with insight into the decision-making process for protecting infrastructure and lives from flooding and sea level rise.

The YESS program was made possible thanks to funding for field trip transportation from the County of San Mateo Office of Sustainability, and planting supplies and leadership from Grassroots Ecology, a sponsored program of the nonprofit Acterra, [www.acterra.org](http://www.acterra.org).

For more information about this impactful program, please see the "Climate Change and Sea Level Rise" blurb on page 6, or contact Carolyn Raider at [craider@smcgov.org](mailto:craider@smcgov.org).



Students Collecting Data at Cooley Landing



# CURRICULA AND RESOURCES



## TEACHER EDUCATION

### SMCOE STEM Center

The San Mateo County Office of Education (SMCOE) STEM team envisions a world filled with empathic learners who are passionate problem-solvers, real-world risk-takers, and curious creatives.

All children deserve access to learning that nurtures their innate curiosity! That is why the STEM team collaborates with educators to design and facilitate learner-centered experiences that are also STEMCENTRIC!

The STEM team builds educator capacity through diverse professional learning opportunities, by connecting schools, networks, community, industry, and government, and by catalyzing and propagating emerging models for learning. Visit the Center to attend active workshops on topics such as Argumentation & the Next Generation Science Standards, Number Talks and Conceptual Understanding, Project Based Learning (PBL), Making, Robotics, and Computer Science. To learn more about the STEM Center or to check out their on-line resource center, go to: [www.smcoe.org/learning-and-leadership/stem-center](http://www.smcoe.org/learning-and-leadership/stem-center).

### Education & Training at The Energy Coalition

The Energy Coalition's STEM programs give educators opportunities for high-quality professional development (both online and in-person) to further hands-on, science of energy education. Their curriculum provides schools with avenues to save energy and water on campus through student-led actions. They help advance critical thinking, problem-solving, and team building skills to inspire students to engineer innovative solutions for a brighter future for all of us. For more details about their offerings, please visit [www.peakstudents.org/teachers-corner](http://www.peakstudents.org/teachers-corner) or email Rachael Van Schoik at [rvanschoik@energycoalition.org](mailto:rvanschoik@energycoalition.org).

## LOCAL PROGRAMS AND RESOURCES

### ENERGY AND WATER

#### Climate Change and Sea Level Rise

The Youth Exploring Sea level rise Science (YESS)

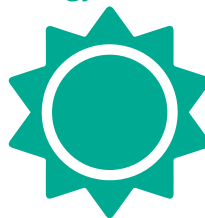
project empowers youth to directly engage in climate change solutions in their own communities. Through an experiential education program that incorporates cutting-edge classroom curricula with hands-on science, high school students explore why sea level rise is happening and how their lives will be impacted. They collect their own data, create communications products, and contribute meaningfully to local science and policy decisions. YESS allows those who will be most impacted by climate change – young people – to have a voice on the issue and to spark a broader conversation about risk and resiliency. The program is divided into three primary components:



- 1. Classroom learning:** Through a flexible curriculum that includes hands-on experiments, games, and interactive activities, students learn about the causes and potential impacts of sea level rise.
- 2. Field investigations:** Students collect real-world data about flood risk and potential impacts in their communities.
- 3. Public presentations:** Students explore the data they've collected, reflect on what they've learned and what sea level rise will mean for them, and construct communications products based on their own interests.

The YESS curriculum, aligned with Next Generation Science Standards (NGSS) and Common Core Standards, is now available to high school teachers throughout San Mateo County for the 2017-2018 school year. If you would like more information about YESS, please contact Carolyn Raider at [craider@smcgov.org](mailto:craider@smcgov.org).

#### Energy and Water Upgrade Toolkit



The Office of Sustainability Energy and Water Upgrade Toolkit is available for checkout at your local library. Designed to help residents evaluate the energy and water usage of their homes, this kit can be easily adapted for classroom lessons. With the kit's free LED lightbulb, heat leakage thermometer, faucet aerators, and simple instructions, students can learn how to upgrade their classroom's water and energy efficiency. To learn more about these kits email Rachael Londer at [rlonder@smcgov.org](mailto:rlonder@smcgov.org).



## Flows To Bay

The “Teachers” section of the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) website provides teachers with resources to educate students about water and how we can prevent pollution of our local waterways. For more information, visit [www.flowstobay.org/schools](http://www.flowstobay.org/schools).

## Making a Solar Oven

Explore the world of solar energy and how you can harness it to make heat and electricity. The Office of Sustainability has a solar oven available for teachers to borrow for free. The oven is accompanied by instructions for a hands-on activity where students create their own solar ovens out of pizza boxes and use them to make nachos. This activity is available for download on our website, [www.smcsustainability.org/waste-reduction/education-schools](http://www.smcsustainability.org/waste-reduction/education-schools).

## THE 4R'S (REDUCE, REUSE, RECYCLE, ROT – COMPOST)

### 4R's Unit Games

Teach your students about the 4R's using our board games. These interactive games can be checked out from the Office of Sustainability. We can also send PDF versions of the games for you to print out and put together as a set for your own classroom. If you are interested, please email [gschwartz@smcgov.org](mailto:gschwartz@smcgov.org).



### Free Composting Demonstrations (all grades, TK-12)

Composting is a great way for students to experience hands-on learning in nature while simultaneously recycling organic waste. Office of Sustainability offers free classroom demonstrations correlated to the Next Generation Science Standards on outdoor composting and “vermicomposting” (worm composting). To schedule a demonstration contact us at 1-888-442-2666 or [sustainability@smcgov.org](mailto:sustainability@smcgov.org).

### Closing the Loop

The California Department of Resources Recycling and Recovery (CalRecycle) created “Closing the Loop,” an interdisciplinary K-12 curriculum emphasizing waste prevention, recycling and composting through hands-on activities. Download lessons at [www.calrecycle.ca.gov/Education/curriculum/CTL/TOC.htm](http://www.calrecycle.ca.gov/Education/curriculum/CTL/TOC.htm).



## TEACHER EDUCATION

### The County of San Mateo's Sustainability Academy

The Sustainability Academy is excited to launch a new program for the 2017-2018 year! The Academy offers educational courses about sustainability at no-cost for teachers, residents, students (age 14 or older) and businesses in San Mateo County. To learn more about the Academy and its offerings, please visit [www.smcsustainability.org/climate-change/sustainability-academy](http://www.smcsustainability.org/climate-change/sustainability-academy) or email us at [sustainability@smcgov.org](mailto:sustainability@smcgov.org).

### Bay Area Earth Science Institute (BAESI)

BAESI offers hands-on teacher-training workshops and field trips. By attending these activities, 4th-12th grade teachers will be provided with instructional materials for classroom lessons, and they have the opportunity to earn continuing education units (CEU's) through San Jose State University. For more information, visit [www.baesi.org](http://www.baesi.org).

### California Regional Environmental Education Community (CREEC) Network

Learn about what's happening with environmental education in the Bay Area and throughout California by checking out the California Regional Environmental Education Community (CREEC) Network at [www.creec.org](http://www.creec.org).





# CURRICULA AND RESOURCES



## TEACHER EDUCATION

### Workshops at RAFT

Attend workshops at Resource Area For Teachers (RAFT) and earn continuing education units (CEUs) from San Jose State University. In addition to affordable craft supplies, RAFT offers numerous interactive workshops during the school year in Redwood City and San Jose. Through these workshops, teachers learn hands-on activities for a variety of subjects. Visit RAFT at [www.raftbayarea.org/workshops](http://www.raftbayarea.org/workshops).

### Council of Math/Science Educators K-12 STEM Conference

The Council of Math/Science Educators of San Mateo County will hold its annual STEM conference on February 10, 2018. This conference provides additional tools and resources for educators in San Mateo County who teach science, technology, engineering, math, and environmental education for Pre-K-12 students. For more information about this conference or to obtain approved professional development units, go to <http://cmsesmc.org/events.html> or contact Brennan Brockbank at [cmsesmc@gmail.com](mailto:cmsesmc@gmail.com).

Don't forget to visit the Office of Sustainability Schools Program Resource Lists at [www.smcsustainability.org/waste-reduction/education-schools](http://www.smcsustainability.org/waste-reduction/education-schools) or call us at 650-599-1424 to find additional information on developing classroom activities and curricula.

## LOCAL PROGRAMS AND RESOURCES COMMUNITY SERVICE



### Fun Ways for Students to Fulfill Their Community Service Hours

If your class or school requires community service hours, or you have students who want to help their community, have them check out the County of San Mateo's Sustainability Academy. Students age 14 and older can participate in Academy courses at no-cost. In exchange for enrollment, students will be required to volunteer their time back to their community. We encourage students to volunteer in an activity that is fulfilling and fun for them, and will help connect them to volunteer opportunities and resources that meet their needs. To learn more about the Academy and its offerings, please visit [www.smcsustainability.org/climate-change/sustainability-academy](http://www.smcsustainability.org/climate-change/sustainability-academy) or email us at [sustainability@smcgov.org](mailto:sustainability@smcgov.org).

## TRANSPORTATION

### Safe Routes To School



The San Mateo County Office of Education has joined other counties throughout California and the nation with the implementation of its very own countywide Safe Routes to School Program (SRTS). This program sets the ground work for school-wide projects and activities to encourage and enable students to walk and bike to school. The overall goal is to reduce traffic congestion

and emissions caused by school-related travels, and at the same time improve students' health, well-being, and safety. To learn more about San Mateo County SRTS resources for implementing school-wide projects and activities, and for upcoming events, visit [tinyurl.com/SMCSRTS](http://tinyurl.com/SMCSRTS).

## HEALTH AND WELLBEING

### Get Healthy San Mateo County (SMC) - Healthy Schools Program



Get Healthy SMC currently hosts the San Mateo County Youth Commission and has partnered with Community Alliance with Family Farmers (CAFF) to increase the amount of local produce in school meals. To learn about this program and to discover other resources that the County Health System has for teachers, administrators, parents, and guardians, visit [www.gethealthysmc.org/healthy-schools](http://www.gethealthysmc.org/healthy-schools). Informational resources on this website include links to school wellness policies, educational attainment, parent advocacy, nutrition, and afterschool and child care programs. You will also be able to see updates about the local School Wellness Alliance program and learn how you can join this inspirational group.





## ADDITIONAL ENVIRONMENTAL EDUCATION

### **Kids Make a Connection (5th-7th grades)**

Help students make a connection between natural resources and their daily consumption and disposal habits by visiting the Office of Sustainability Schools Program Kids web page: [www.smcsustainability.org/kids](http://www.smcsustainability.org/kids).

### **California's Education and the Environment Initiative (EEI) Curriculum**

The EEI Curriculum is a K-12 environmental-based curriculum, and each unit correlates with the Next Generation Science Standards and the Common Core Standards. To download the curriculum, visit the online EEI Curriculum Professional Development website: [www.californiaeei.org](http://www.californiaeei.org).

### **Science, Technology, Math, and Engineering (STEM) Fair**

This year, due to growing participation and the need for more space, the County of San Mateo Office of Education's STEM Fair will be held at the San Mateo County Event Center – Fiesta Hall from March 3 – 4, 2018. For information about submitting a project proposal, visit [www.stemfair.net](http://www.stemfair.net) and contact Doron Markus at [dmarkus@smcoe.org](mailto:dmarkus@smcoe.org). For science fair project ideas, search 'science fair projects' at [www.usa.gov/education](http://www.usa.gov/education) or visit [www.sciencebuddies.com](http://www.sciencebuddies.com).

## VIDEO CLIPS

Video clips are a fantastic way to introduce sustainability and other environmental topics to students in the classroom. You can find some great video clips on the following websites:

**Green Ninja Show:**

[www.greenninja.org/Green\\_Ninja\\_Show](http://www.greenninja.org/Green_Ninja_Show)

**National Geographic:**

[www.nationalgeographic.com/search/?q=videos](http://www.nationalgeographic.com/search/?q=videos)

**National Science Foundation (NSF) Science 360Videos:**

[science360.gov/topic/Earth+&+Environment](http://science360.gov/topic/Earth+&+Environment)

**BBC Nature:**

[www.bbc.co.uk/nature/extinction\\_causes/Geologic\\_temperature\\_record](http://www.bbc.co.uk/nature/extinction_causes/Geologic_temperature_record)

**Sustainability Hub:**

<https://sustainabilityhub.com>



## TEACHER EDUCATION

### **KQED Teach**

KQED Teach provides a series of free, self-paced courses to help K-12 educators develop the media skills necessary to bring media production and communication to their learning environments. These courses take place in an online platform that encourages sharing and feedback through an integrated social community. Courses include interactive maps, making infographics, podcasting, and more. These are great tools for developing project based learning (PBL) environmental lessons such as anti-littering campaigns. To start incorporating digital media into your learning environment, sign up at <https://teach.kqed.org>.

### **San Mateo Environmental Learning Collaborative**

The Office of Sustainability is thankful to have participated in the San Mateo Environmental Learning Collaborative (SMELC) K-8 teacher training institutes for three years. The SMELC institutes are facilitated by the nonprofit organization Ten Strands and the San Mateo County Office of Education (SMCOE). The overall objective of this professional development program is to give San Mateo County teachers an environment where they can develop their own project based learning (PBL) environmental lessons in correlation with the Next Generation Science Standards. The SMELC institutes have also given teachers the opportunity to interact and connect with representatives from various local environmental education organizations who can provide resources to support their lessons.

To learn more, visit <https://tenstrands.org/san-mateo-elc>.



OSS Teacher Training Workshop



# CURRICULA AND RESOURCES

## LOCAL PROGRAMS AND RESOURCES

### Classroom Visits and Field Trips

There are many environmental education organizations within or near San Mateo County that offer field trips or bring their interactive programs directly to schools.

#### San Mateo County Parks

Discover the different habitats in our parks and learn about all of the species that exist there. To learn more about our County Parks and how to schedule a possible docent lead tour at some of them visit <http://parks.smcgov.org>.

#### Marine Science Institute in Redwood City

Encounter the creatures that live in San Francisco Bay and practice using the equipment and tools researchers use to study them: [www.sfbaymsi.org](http://www.sfbaymsi.org).

#### Wildlife Associates in Half Moon Bay

Non-releasable and injured wildlife become the ambassadors that teach students about the importance of protecting and conserving our natural environment: [www.wildlifeassociates.org](http://www.wildlifeassociates.org).

#### Elkus Ranch in Half Moon Bay

Meet the goats, chickens, horses, and sheep that live on this working farm and learn about environmental stewardship: <http://elkusranch.ucanr.edu>.

#### CuriOdyssey at Coyote Point

Experiment with physics and observe California native reptiles, amphibians, birds, and mammals in their habitats: <https://curiodyssey.org>.

#### Pie Ranch in Pescadero

Experience sustainable farming practices by making pie from scratch, starting with the very source of the ingredients such as milking goats and cows for butter: [www.pieranch.org](http://www.pieranch.org).

#### The San Mateo County School Farm operated by the HEAL Project (Half Moon Bay)

Field trips to this farm offer San Mateo County students an opportunity to connect with the environment and the food they eat: [www.thehealproject.org/farm](http://www.thehealproject.org/farm).

#### Shoreway Environmental Center in San Carlos

RethinkWaste (South Bay Bayside Waste Management Authority-SBWMA) offers free field trips, including bus transportation, to the Shoreway Environmental Center for 3rd to 5th grade classes in the RethinkWaste service area. The RethinkWaste service area includes the cities of Burlingame, San Mateo, Hillsborough, Foster City, Belmont, San Carlos, Redwood City, East Palo Alto, Menlo Park, Atherton, West Bay Sanitary District and Unincorporated San Mateo County areas east of Highway 280. For more information and to schedule a RethinkWaste tour, email [tours@rethinkwaste.org](mailto:tours@rethinkwaste.org) or call (650) 802-3506.

#### Hidden Villa in Los Altos Hills

Practice sustainable agriculture and animal husbandry and take hikes to explore the wilderness that surrounds this farm: [www.hiddenvilla.org](http://www.hiddenvilla.org).

#### Environmental Volunteers in Palo Alto

Visit the EcoCenter, explore the marsh of San Francisco Bay, and learn about our natural systems: [www.evol.org](http://www.evol.org).



Students Hiking on a Closed Landfill "FREE 4R's Classroom Field Trip"

### 4R's (REDUCE, REUSE, RECYCLE, ROT-COMPOST) GRANTS

Are you looking for funds to cover the cost of field trips, workshops, or classroom materials to provide your students with environmental project based learning (PBL) experiences? If so, the Office of Sustainability (OOS) may be able to help. OOS is offering our 4R's Grants to public agencies, nonprofit organizations, educational institutions and other qualified parties. These grants support small projects that will increase awareness and action about the 4R's (reduce, reuse, recycle, rot-compost). Our past grants, through the RecycleWorks Program, have funded school recycling and compost bins, environmental field trips, recycling campaigns, and school garden structures such as a greenhouse and planter boxes made from salvaged lumber. **For more information contact us at [sustainability@smcgov.org](mailto:sustainability@smcgov.org).**

### FREE PRESENTATIONS FOR CLASSES (All grades)

Schools Program staff is available to give free presentations to classes, small groups, school assemblies or events to support your school's recycling, composting, waste reduction, and green building efforts.

Contact us at 650-599-1424 or [sustainability@smcgov.org](mailto:sustainability@smcgov.org) for more information.



## FREE Office of Sustainability 4R's Field Trips to a Transfer Station and Recycling Center

Our Schools Program will once again be offering approximately 15 free field trips (including bus transportation) for classes of 25-35 students in 2nd to 12th grade. Participating students will tour a working transfer station and recycling center (materials recovery facility). On these tours, the students will see how garbage and recyclables are sorted and processed before being shipped out to a landfill or recycling facility. If time permits, students will also explore a local closed or open landfill to learn about its long-term environmental impacts.

These field trips align with the Next Generation Science Standards and are a great opportunity for students to gain firsthand knowledge about resource conservation. Classes are selected for these field trips by a random

drawing from a pool of submitted applications. If your class is selected for a field trip, we will assist you in developing pre- and post-tour activities to incorporate into your existing course units. You will also be required to attend a mandatory informal orientation workshop on February 6, 2018, from 4:15 pm to 6:15 pm to discuss field trip goals, as well as to schedule your class field trip date.

**Field trips will be scheduled during the Spring 2018 semester. To apply for a FREE FIELD TRIP, please fill out the application form below and mail or email to the Office of Sustainability Schools Program by Friday, January 12, 2017.**

## COMPLETE AND RETURN THIS FORM TO THE OFFICE OF SUSTAINABILITY

WE MUST RECEIVE YOUR APPLICATION BY 5:00 PM, JANUARY 12, 2018 TO BE ENTERED INTO A RANDOM DRAWING FOR THE FREE FIELD TRIP.

### MAILING ADDRESS:

School Bus Trip, Office of Sustainability Schools Program  
455 County Center, 4th Floor  
Redwood City, CA 94063-1665

Or email a PDF of the bus trip application to [sustainability@smcgov.org](mailto:sustainability@smcgov.org) with the subject line, "4R's Field Trip."

Teachers will be notified by email approximately one week after the application deadline. Please provide an alternative address where we can send your notification letter if you do not have a school email address. **If selected, you will be required to attend an informational workshop on February 6, 2018, from 4:15 p.m. to 6:15 p.m.** in order to be awarded the trip and participate in the program.

School: \_\_\_\_\_ City: \_\_\_\_\_

Teacher: \_\_\_\_\_ Grade: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

School Address: \_\_\_\_\_

Alternate Mailing Address/City/Zip Code: \_\_\_\_\_

How many students will be attending the field trip? \_\_\_\_\_



OFFICE OF  
SUSTAINABILITY  
COUNTY OF SAN MATEO

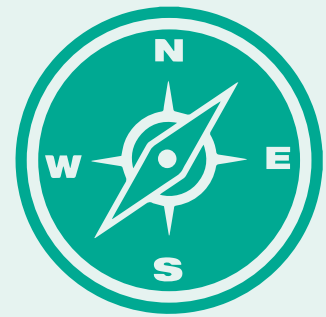


## THANK YOU TO ALL OUR EDUCATORS!

You are making a difference in your students' lives. May these quotes inspire you to continue your great work.

"A teacher is a compass that activates the magnets of curiosity, knowledge, and wisdom in the pupils."

– Ever Garrison, Teacher and Author



"Passion is lifted from the earth itself by the muddy hands of the young; it travels along grass-stained sleeves to the heart. If we are going to save environmentalism and the environment, we must also save an endangered indicator species: the child in nature."

– Richard Louv, Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder