



2015-2016 District Nominee Presentation Form

CERTIFICATIONS

District's Certifications

The signatures of the district superintendent on the next page certify that each of the statements below concerning the district's eligibility and compliance with the following requirements is true and correct to the best of the superintendent's knowledge.

1. The district has been evaluated and selected from among districts within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental education.
2. The district is providing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review.
3. OCR has not issued a violation letter of findings to the school district concluding that the nominated school district has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
4. The U.S. Department of Justice does not have a pending suit alleging that the school district has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
5. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the school district in question; or if there are such findings, the state or school district has corrected, or agreed to correct, the findings.
6. The district meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

U.S. Department of Education Green Ribbon Schools 2015-2016 District Sustainability Award

Name of Superintendent: **Mr. Richard A. Carranza**

District Name: **San Francisco Unified School District**

Address: **555 Franklin Street, San Francisco, CA 94102**

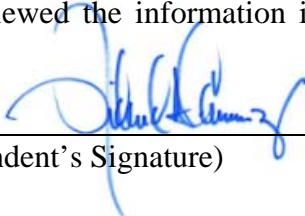
Telephone: **415-241-6121**

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Web site/URL: www.sfusd.edu

E-mail: RichardCarranza@sfusd.edu

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.

A handwritten signature in blue ink, appearing to read "Richard Carranza".

Date: **1/25/2016**

(Superintendent's Signature)



Nominating Authority's Certifications

The signature by the Nominating Authority on this page certifies that each of the statements below concerning the district's eligibility and compliance with the following requirements is true and correct to the best of the Authority's knowledge.

1. The district is one of those overseen by the Nominating Authority which is highest achieving in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental education.
2. The district meets all applicable federal civil rights and federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency: **California Department of Education**

Name of Nominating Authority: **State Superintendent of Public Instruction Tom Torlakson**

I have reviewed the information in this application and certify to the best of my knowledge that the school meets the provisions above.

Tom Torlakson Date: **January 28, 2016**
(Nominating Authority's Signature)

SUMMARY AND DOCUMENTATION OF NOMINEE'S ACHIEVEMENTS

Provide a coherent summary that describes how your district is representative of your jurisdiction's highest achieving green school efforts. Summarize your strengths and accomplishments, being sure to cover equally all three Pillars. Then, include concrete examples for work in every Pillar and Element. Only districts that document progress in every Pillar and Element can be considered for this award.

SUBMISSION

The nomination package, including the signed certifications and documentation of evaluation in the three Pillars should be converted to a PDF file and emailed to ed.green.ribbon.schools@ed.gov according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509

Expiration Date: March 31, 2018

Public Burden Statement

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1860-0509. Public reporting burden for this collection of information is estimated to average 37 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The obligation to respond to this collection is required to obtain or retain benefit P.L. 107-110, Sec. 501, Innovative Programs and Parental Choice Provisions. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Department of Education, 400 Maryland Ave., SW, Washington, DC 20202-4536 or email ICDocketMgr@ed.gov and reference the OMB Control Number 1860-0509. Note: Please do not return the completed ED-Green Ribbon Schools application to this address.

SFUSD
GREEN THE NEXT GEN

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Greening Your School

REFINE RESULTS

VIEWING 1-10 OF 21

Name

Program Name

Grade Level / Audience

PreK	K	1	2	3	4	5
6	7	8	9	10	11	12

Types

- Commute to School
- Green Team
- Green Building
- Green Schoolyards
- Zero Waste

Cost

Bike to School
Organize a bike convoy so students can learn to school safely and sustainability without creating pollution. • Bike to School Day...

Bottled Water
Sell school-branded water bottles to encourage students and healthy and waste-free Hetch Hetchy tap water. Drinking clear tap water from a reusable bottle in place of sugary...

Commuter Benefits
Commuter Benefits allows you to pay for qualified transit pass expenses using pre-tax money. The pretax limit per pay period is \$245. When you place an order, you are asking...



San Francisco Unified School District

California Disadvantaged¹ District Sustainability Award Nominee to
U.S. Department of Education Green Ribbon Schools



Prepared by
California Department of Education
School Facilities and Transportation Services Division
<http://www.cde.ca.gov/ls/fa/sf/greenribbonprog.asp>
January 2016

¹ 62.3% of SFUSD students were eligible for Free or Reduced Price Meals in the 2014-15 school year, the most recent data available.

PART II – SUMMARY OF ACHIEVEMENTS

San Francisco Unified School District, San Francisco, Calif.

Coordinated efforts in environmental education for more than 40 years

The San Francisco Unified School District (SFUSD) is proud of coordinated efforts towards being one of the greenest urban public districts in California. SFUSD's partnerships with the City of San Francisco, local NGOs, and universities have allowed them to move their 54,000 students in 64 elementary schools, 8 K-8 schools, 12 middle schools, and 18 high schools towards benefits of greener facilities, practices, wellness initiatives, and curriculum.

Coordinated efforts in environmental education rose in tandem with the creation of the Golden Gate National Recreation Area in the 1970s, followed by the creation of the SFUSD Environmental Science Center (ESC) in 1976. The ESC continues to provide elementary overnight environmental learning experiences at no cost for classrooms.

In the 1980s, the ESC partnered with San Francisco municipal utilities (water, waste, power, and sewer), beginning the integration of sustainability messages in standardized education work and providing professional development to a large number of elementary teachers. At this same time, many individual schools sites began their own relationships with partner providers to develop a sustainability ethic, and a more standardized integrated network of partners emerged as the science collaborative (now "4S").

In 2007, SFUSD partnered with the Mayor's Office, Public Utilities Commission (SFPUC), and Department of the Environment (SFE) to create the SFUSD Department of Sustainability (DS), allowing district-wide coordinated oversight into all facilities improvements and practices. This oversight is connected to bond modernization at all sites, which includes the development of a green schoolyard on each and every campus. In 2011, the DS—in coordination with SFUSD Curriculum and Instruction—began providing environmental liaisons 100% of sites. Liaisons provide on-the-ground school support working to reduce utilities costs; targeting 100% landfill diversion; supporting walk/roll to school, wellness, and other campaigns; and promoting professional development opportunities to site staff. Currently, the Next Generation Science Standards are encouraging a PK-12 pathway of meaningful environmental experiences that is being developed in partnership with 4S collaborative partners.

Every SFUSD school participates in the District's Shared Savings program, a partnership with the municipal utilities. The program rewards school sites for reducing their utility use by giving them 50% of the savings they generate through conservation for discretionary site-based spending. SFUSD also identifies efficiency projects through ongoing audits of the biggest energy-using sites. All information is available to 100% of sites and the public through the District's www.greenthenextgen.org dashboard tool.

To promote the health and wellness of students, SFUSD partnered with Revolution Foods in 2012. Revolution Foods prides itself on food that is prepared fresh daily; has no artificial preservatives, colors, high fructose corn syrup, or trans fats; and provides fresh fruits and vegetables with every meal. SFUSD has also banned BPA containers for food service. Most of the packing is compostable, with very little if any packaging sent to landfill. Student and staff wellness benefit from physical education minutes in the form of creative, outdoor, environmentally-friendly learning experiences such as walking field trips, bike-rodeo trainings for students, overnight camping trips that include hiking, and integration of student exercise in

outdoor green schoolyards that are continuing to be developed at each school in SFUSD. In 2011, voters authorized the continued modernization and greening of all SFUSD school sites. Work on these sites has continued through 2015.

SFUSD STEM offices have aligned curriculum with these environmental and sustainability efforts. An environmental pathway is being implemented supporting PK-12 meaningful environmental experiences at each grade level. SFUSD continues its 40-year partnership with the National Park Service sponsoring the SFUSD ESC. As of 2015, all ESC programs are NGSS-aligned, supporting grades 3, 4, and 5. These programs remain no-cost for classrooms and prioritize Title I school sites. SFUSD benefits from a rich network of science, stewardship, and sustainability providers who are integrated into the pathway.

To make these experiences equitable, the SFUSD Board recently approved a Science Enrichment Pathway fund. Funding will eliminate barriers such as bussing fees, substitute costs, or entrance fees for students, with a goal of ensuring all students at all schools can participate in a pathway of meaningful experiences. A pathway coordinator has been hired to connect school sites into the PK-12 pathway of meaningful science and environmental experiences available from SFUSD partners. These experiences will also align with California's Blueprint for Environmental Literacy, developed by the Environmental Literacy Task Force, which counted SFUSD as a member.

PART III – DOCUMENTATION OF STATE EVALUATION OF DISTRICT NOMINEE

Pillar I: Reduce Environmental Impact and Costs

Element IA: Energy

- 100% of school sites participate in SFUSD's Shared Savings program, a partnership between SFUSD and the city municipalities. The program rewards school sites for reducing their utility use by giving them 50% of the savings they generate through conservation. SFUSD also identifies efficiency projects through ongoing audits of the biggest energy-using sites. All information is available to 100% of sites and the public through the District's www.greenthenextgen.org dashboard tool.
- 37% of SFUSD schools have received ENERGY STAR certification or have met the eligibility requirements for certification. 38 schools in the district received a score of 75+.
- With the use of GreentheNextGen.org, SFUSD was able to track a reduction of its total non-transportation energy use by 15% from June 2014 to June 2015. GreentheNextGen.org documents up-to-date reductions at 100% of school sites. Information is public. Change is documented by identifying natural gas (KWH) and electricity (Therms) used at each school site and provided by the utility manager.
- Because 31% of all electricity used in the District is provided by hydropower obtained from the SFPUC's Hetch-Hetchy, funding on-site renewables has not been a priority. SFUSD possesses huge roof resources, so, each summer one new school receives a solar panel. This power stays on-site providing the school with clean, renewable energy for lights and plug loads. SFPUC is funding this project, as well as complementary online dashboards so schools can find out what fraction of their power consumption is covered by renewables.
- In 2003, SFUSD adopted a policy that required all new schools to be CHPS-verified. Willie Brown Middle School, the first new campus to be constructed since this policy,

was CHPS verified upon its completion in 2015. SFUSD standards mandate new campuses achieve at least 40 CHPS points. The campus has solar panels, a green schoolyard, and advanced stormwater management features. SFUSD has been modernizing buildings since 2003, focusing mainly on fire and life safety systems, ADA access, and deferred maintenance. Few projects have touched enough systems to qualify as major modernization. In March 2013, SFUSD changed its standards to require modernized buildings to achieve 20 CHPS points. These buildings began construction in the summer of 2015.

- SFUSD has been installing cool roofs since 2009 and removing asphalt to make way for green schoolyards at almost 60 sites since 2005. Through the 2011 voter-initiated school modernization bond, the remaining schools will undergo schoolyard greening and modernization under the supervision of the SFUSD Department of Sustainability.
- Each school site hosts a staff member who serves as an environmental liaison. Liaisons work with students, staff, and administrative teams to identify and correct energy “drains.” All up-to-date numbers are shared on public-facing web-based dashboards.
- SFUSD has introduced retrofitted exit signs with LED lights, installed T8 lighting in common areas and classrooms, and implemented a new EMS system in 2003. Since 2011, all bond sites receive utility audits and extra funding for efficiency projects. With 100% of SFUSD schools undergoing modernization, all schools will receive schoolyard greening which includes partnership with Friends of the Urban Forest, who plant trees at each of the SFUSD schools and creating shared areas for students.

Element IB: Water and Grounds

- SFUSD uses 1,379 gallons of water/occupant/year.
- 80% of the District's landscaping is considered water-efficient and regionally appropriate per an Education Outside site-based estimate.
- All SFUSD school sites that currently have green schoolyards nominate a Green Schoolyard Liaison to manage and maintain schoolyard needs. This happens in partnership with SFUSD Buildings and Grounds. Each school site is unique, so mulch is one of the techniques used to mitigate weeds as well as control evaporation while keeping the landscape permeable. The SFUSD Environmental Science Center uses mulch as replacement for turf/non-native grasses.
- SFUSD's Green Schoolyard Guidelines encourage native and/or drought tolerant plants. The SFUSD Environmental Science Center, San Francisco Parks and Recreation, and other SFUSD middle and high school partner stewardship programs work with students to grow and restore natural areas around the school site as drought-resistant native plant habitat. Many native seedlings are provided no-cost to schools via local native plant nurseries.
- As of 2014, there are 20 rainwater harvesting systems in the District, including a 5,000 gallon cistern at Ulloa Elementary School, and these are used to irrigate school gardens. Starr King Elementary School will be the first school to flush toilets with collected rainwater.
- In addition to green schoolyard program & rainwater harvesting efforts, over ten SFUSD schools have received SFPUC's Urban Watershed Stewardship grants to fund asphalt removal, rainwater collection, and natural habitat creation; NGSS response and development teachers have designed Core Curriculum presenting a design challenge of reducing runoff around their schoolyard to secondary students; SFUSD Environmental

Science Center educates seven middle schools how native plants reduce runoff and erosion.

- Through the bond modernization efforts, all newly installed plumbing fixtures are efficient, under supervision of Department of Sustainability. All existing older fixtures are corrected by SFUSD buildings and grounds plumbers as needed. Bottled water has been banned from purchasing at all school sites. Water bottle refill stations have been installed in many schools.
- 100% of SFUSD schools will undergo schoolyard greening. Schoolyard greening elements are determined by each unique school site, yet are guided by elements site staff should consider including per the SFUSD Green Schoolyard Guidelines. In 2015, Education Outside staffed 40 college graduates at elementary schools across SFUSD. These coordinators are responsible for outdoor schoolyard instruction including science education, ELA, and nutrition/cooking/gardening/stewardship. Mostly all secondary sites offer gardening/nutrition or CTE pathways.

Element IC: Waste

- 75% of solid waste from all school sites is diverted from landfilling or incinerating due to reduction, recycling, and/or composting. All District schools participate in the “Zero Waste by 2020” city goal. 100% of sites are stocked with green composting bins provided by the city waste management agency.
- The Department of Sustainability works with the Custodial Services department to track the number of bins (green/blue/black) used and the amount of diversion to green and blue bins, encouraging less black bins over time. The bins are weighed and measured. Public results are displayed on GreenTheNextGen.org. Recology provides SFUSD with monthly spreadsheets that show service level and diversion rates.
- In partnership with SFE, 100% elementary schools are offered 'Food to Flowers' assemblies helping students understand the process of compost being turned into soil, in such large quantities, and which items are appropriate for which bins. Many grade 3-5 classes participate in 'composting experiments' helping students test how long it takes for some items in their lunches to be turned into soil. Many schools participate in active on-site composting for their gardens. These outdoor 'labs' also assist students understanding the process of biological and chemical breakdown and energy transfer. CTE urban agricultural courses offer this lab as a portion of their pathway. 2012-14 K-2 Ecoliteracy teacher institutes provided 160 teachers with wormbins and professional development activities to enhance teaching using FOSS lessons from the UC Berkeley Lawrence Hall of Science in their green schoolyards.
- 100% of school sites are trained on dealing with flammable, corrosive or toxic liquids used in science classrooms are managed by Science Safety and Materials officer. This staff member works with the SFUSD Risk Management Office, SFUSD Hazardous Waste coordinator and RECOLOGY offices to properly store and recycle or dispose of these materials. Each year all sites undergo a safety materials sweep, where hazardous materials are inventoried and proper handling/recycling/disposal is scheduled.
- SFUSD sites no longer purchase single-use plastic bottles for student or staff use. Water refill stations have been installed at 20 schools that do not have drinking fountains or water access in their cafeterias.
- 96% of SFUSD's total office/classroom paper content is postconsumer material, fiber from forests certified as responsibly managed, and/or chlorine-free.

- SFUSD is in the final stages of drafting a formal green purchasing policy. Currently SFUSD purchases recycled-content paper towels, toilet paper, and office paper. The new policy will be accompanied by a switch to an E-Purchasing system. The District recently overhauled its building standards to require the selection of green building materials, including Green Seal paints with VOCs <20 g/L, low-mercury lighting, linoleum flooring, and the elimination of PVC in most applications. The Custodial department uses GreenSeal cleaners. The SFUSD Environmental Science Center is working with the Department of the Environment to have students make their own environmentally-friendly non-toxic cleaners in line with the city's 'Healthier Homes' campaign. Students and families make their own cleaning agents using water, vinegar, essential oils, baking soda, and other precautionary-principle-aligned items.

Element ID: Alternative Transportation

- At SFUSD 22.8% of students walk to/from school. 1.2% use their bicycle, scooter, or skateboard. 3.2% of students carpool. Another 26.5% use the school bus and 26.5% use other public transportation. Percentages were collected as part of the 2014-15 school year SFUSD Department of Sustainability Commute Data program. All data is public and updated periodically at <http://greenthenextgen.org/programs/greening-your-school/>. The San Francisco Department of Public Health administers data collectors to school sites collecting week-to-week observational and in-person interviews.
- SFUSD has a well-publicized no-idling policy that applies to all vehicles, including school buses. There are designated safe routes to school, a “walking bus” program in which adults accompany groups of students as they walk to school along a given route, and secure storage to encourage human-powered modes of transportation to school.
- On October 7, 2015, SFUSD welcomed U.S. Surgeon General Dr. Vivek Murthy, San Francisco Mayor Ed Lee, and San Francisco Police Chief Ed Suhr to a school-based event promoting and encouraging participation in "Walk and Roll to School Day." This visit boosted awareness and community-building efforts to promote Safe Routes to School options. Year-long Safe Routes programming includes classroom walk/bike lessons, outreach to parents to shift mode share, regular encouragement events (e.g., Walk/Bike to School), and traffic engineering at dangerous school intersections at 15 schools. The local bicycle commission also conducts school-wide bike rodeos to teach students how to safely ride a bike. Environmental Liaisons coordinate with the SFUSD Department of Sustainability to promote activities to 100% of school sites.
- SFUSD encourages families with shorter commutes to walk/bike and those with longer commutes to carpool/take transit. SFUSD works in partnership with the Municipal Transportation Agency to provide all low and moderate income students with free passes to public transportation. Environmental Liaisons coordinate with the SFUSD Department of Sustainability to promote activities to 100% of school sites.
- The SFUSD physical education department encourages walking field trips to build endurance. The SFUSD Environmental Science Center encourages field studies at sites close to schools to promote walking and sustainability.

Pillar II: Improve the Health and Wellness of Students and Staff

Element IIA: Environmental Health

- Integrated Pest Management services are provided by Eco-wise and Green-Pro under the guidelines of the California Healthy Schools Act. Routine inspections performed

twice a month generally prescribe non-chemical measures. Only chemicals approved by the City of San Francisco are used when necessary after hours or weekends.

- SFUSD prohibits smoking on campus and in public school buses, has identified and properly removed sources of elemental mercury and prohibits its purchase and use in the school, uses fuel burning appliances and has taken steps to protect occupants from carbon monoxide (CO), and has identified that there are no wood playground or other structures that contain chromate copper arsenate. SFUSD adheres to the Asbestos Act and has an asbestos management plan in place.
- SFUSD has a chemical management program that includes a chemical purchasing policy (low- or no-volatile organic compounds (VOC) products), storage and labeling, training and handling, chemical inventory, hazard communication (clean-up and disposal), a purchasing policy for less toxic products (including less toxic art supplies), and selecting third-party-certified green cleaning products.
- 100% of secondary science teachers undergo annual training in safety procedures, proper maintenance and disposal of instructional materials. A Science Safety Officer and Materials Manager oversees all secondary science classroom compliance with managing materials. SFUSD has had a no smoking policy since 1988. The Bond Program removes hazardous materials as part of any construction work.
- SFUSD classrooms have good daylighting and high-quality electrical light when needed. 100% of classrooms exceed minimum outdoor air exchange rates and have views of trees and nature. Outward-facing school windows benefit from natural views of parks or green corridors that the city is working to install. Many neighborhoods have street trees managed by citizens, Friends of the Urban Forests, or SFUSD schools and students. Interior-facing windows now benefit from green schoolyard improvements or landscaping provided by SFUSD buildings and grounds committees or local volunteer partner groups.
- As a part of the District's modernization work, many schools received upgrades to ceilings and other areas in the school to improve acoustics. As needed, renovated classroom windows can be opened throughout the day to assist with outdoor air exchange rates and student ventilation. SFUSD benefits from a temperate geography allowing school sites utilize natural fresh air ventilation through windows and doors as-needed for staff and students. SFUSD is benefitting from modernization efforts to correct all vent and heating systems that may have been in need of repair, under supervision of the Department of Sustainability.
- SFUSD Buildings and Grounds employs inspectors specializing in heating and ventilation as well as inspectors from the Asbestos/Hazmat Control Program who look at air quality. Inspections happened at all school sites over the last five years due to modernization work. The SFUSD board of education passed a resolution in 2005 that created an advisory committee that uses EPA IAQ Tools for Schools to assess SFUSD air quality. SFUSD hired a District Wide Air Quality Coordinator, who makes available the current status of TfS implementation at schools, and top priority is given to Indoor Air Quality and TfS in work orders and repairs by the Facilities Department.
- In collaboration with the Asthma Task Force and the Department of Public Health, the SFUSD Custodial Department has been able to introduce Green Seal certified cleaning products at 100% SFUSD school sites starting in 2012. The chemicals are shipped in concentrated form to minimize transportation-related emissions and are applied with washable microfiber mops to improve hygiene and reduce chemical use. Following the implementation of asthma self-management education, schools have experienced a significant reduction in the incidence of asthma episodes. Programs such as American Lung Association's "Open Airways For Schools" and Kickin' Asthma as well as EPA's

Tools for Schools have been implemented in SFUSD. Through Walk & Bike to School, carpooling, and no-idling programs, the District has reduced carbon monoxide pollution exposure for all students. 100% of school sites are no-smoking on-site, and several hundred feet away from school grounds.

- The SFUSD Environmental Science Center works to educate instructors about the precautionary principle regarding household chemicals and works with ~2000 students, their teacher, and families annually to actively create green cleaning products, and use them to steward the science center. These practices are asked to be taken back to the classroom for teachers and students to continue their non-toxic practices.
- Through a local modernization bond, 100% of schools are being upgraded, including the installation of new paint, new windows, and new carpets where needed. Any damage caused by leaks or water were remedied and the plumbing upgraded. 100% of schools are able to rely on SFUSD Buildings and Grounds to fix and repair issues as they come up (leaks, condensation, mold, etc).
- As part of modernization work, a hazardous materials consultant checks all surfaces and identifies a remediation plan for lead, asbestos, mercury, and other compounds, including lead-containing plumbing fixtures at 100% of school sites. These are then removed or sealed as deemed appropriate during modernization work. Post-construction water sampling ensures that all problems are addressed, and if necessary, additional work is authorized until lead values are satisfactory.
- All school site water in SFUSD comes from the Hetch-Hetchy reservoir operated by the SFPUC treatment process, one of the cleanest in the nation. All school gardens are outfitted with back-flow preventers so irrigation water doesn't mix with potable water.
- A hazmat crew monitors lead levels in drinking water and fixtures containing lead are removed from all schools as part of the bond modernization process for 100% of school sites. Bottled water has been delivered to pre-modernization schools with high lead levels.
- Starting in 2012, SFUSD has been working to switch custodial chemical use to green-seal cleaners at 100% of schools and administrative offices. Washable microfiber cloths and mops are used by the custodial department as recommended by the San Francisco Department of the Environment. As part of curriculum, the SFUSD Environmental Science Center provides professional development to teachers around the precautionary principle, and the 'whys' and 'hows' of why we encourage students and families to make and use their own non-toxic cleaners. All participating staff and students create their own cleaning materials from vinegar, baking soda, essential oils and other non-toxic materials.
- All SFUSD custodial staff members undergo professional learning to reduce the amount of chemical use in schools. 100% of custodial cleaning supplies are switching to Green Seal-verified. Green Seal offers third-party certification based on leadership sustainability standards that help protect the natural world and human health. Green Seal has been actively identifying and promoting sustainability to industries, purchasers and consumers, and helping organizations be greener in a real and effective way since 1989. SFUSD uses microfiber cloths & mops, which are both hot-water washable and reusable to help reduce dust and pollutants that act as asthma triggers. All products are inventoried to reduce the amount of chemicals at sites, and also to help reduce costs. At some sites and in some classrooms, only natural ingredient cleaners are used, mixing vinegar, water and essential oils, that are precautionary principle-approved by the San Francisco Department of the Environment Healthier Homes campaign.

- As part of the District's modernization program, each building receives a sustainability site audit, including plans for the redesign of campus exterior spaces to improve health and wellness for students and staff. Schoolyard greening has allowed SFUSD to partner with Friends of the Urban Forest, which provides landscaping and fruit trees for all schools that would like to have students help care for them. 2012 Trees by 2012 was an effort in partnership with Friends of the Urban Forest to increase the number of school sites planted with living, green schoolyards. This effort is continuing as each school site is modernized.
- As many urban students choose to walk and take public transport, parking and idling spaces are not typically permitted around school sites. There are 'no-stopping zones' in front of each school site entranceway that are used exclusively for school bus-pick ups during the start and end of the school day.

Element IIB: Nutrition and Fitness

- SFUSD adopted the USDA Gold standard for all of its meals in 2010 for 100% of schools.
- SFUSD participates in "California Thursdays" for 100% of schools. Food is sourced from local producers is highlighted to connect students with where their food comes from.
- SFUSD hired Revolution Foods (RF) in 2013 to provide student nutrition services to 100% of sites. RF meals use clean-label ingredients. RF is a mission-driven local company dedicated to ensuring everyone has access to high-quality real foods, and build lifelong healthy eaters. Examples of environmentally preferable ingredients include pasture-raised beef using only humanely and compassionately raised animals, cereals and yogurt verified as USDA Organic, Earth Wise and Food Alliance Certified meat providers.
- SFUSD partners with Education Outside to plant, harvest, cook, and eat with students in green schoolyards. SFUSD's wellness policy is overseen by the School Health Programs Department in collaboration with School Operations & Instructional Support. SFUSD CTE offers Urban Agricultural, Environmental Liaisons to communicate new and innovative opportunities for staff at 100% of schools.
- SFUSD has on-site gardens maintained by students, staff, and families. 100% of SFUSD schools are receiving green schoolyards. Close to 70% of elementary schools employ garden-focused staff members who work with all elementary students to actively plant, maintain, harvest, prepare, and eat foods. Sites also honor ethnic backgrounds of students to prepare authentic foods representing the diverse backgrounds of SFUSD families.
- In 2012, 2013 and 2014, K-2 teacher cohorts participated in SFUSD-sponsored "Using the Schoolyard as a Tool for Integrated Learning" institutes, which included growing and eating food as part of suggested lessons. Many to all secondary sites utilize green schoolyards for health/wellness and science. CTE is offering an Urban Agricultural pathway that deeply connects students their relationship with food and land. SFUSD Juvenile Hall residents partner with Urban Sprouts to sponsor gardening classes at Log Cabin Ranch on Mondays, Tuesdays, and Wednesdays of each week.
- SFUSD students spent at least 120 minutes per week over the last year in school-supervised physical education and at least 50% of students' annual physical education takes place outdoors.
- SFUSD Environmental Science Center (ESC) encourages teachers to use their physical education minutes as walking field trips to their local park. Many teachers work to build

up endurance in their students through walking science field trips to natural areas to practice 'pre activities' such as sketching objects in nature over the course of the year. ESC field trips are hiking and walking intensive, so pre-lessons to natural areas that build student endurance in students are recommended. Field studies are at minimum four hours, which are a mix of walking between locations, hiking steep inclines, and a mix of bending, stretching, and breathing techniques. Many SFUSD classrooms participate in a variety of these physically-active learning activities, including partner programs with the National Parks, Recreation and Parks, Education Outside, Kids in Parks education groups, and school-site-based gardening and stewardship-based activities. 100% of students are exposed to outdoor physical education activities annually.

- SFUSD schools have an active wellness committee that meets at least quarterly. The school wellness policies address positive environmental and health impacts that have helped green schools and extend into afterschool programs and activities. At least 50% of students have participated in the EPA's SunWise program.
- The San Francisco Wellness Initiative is a groundbreaking program dedicated to improving the health, well-being and academic success of the city's 16,000 public high school students at 19 campuses in SFUSD. Wellness Centers provide safe, supportive environments in the school where students can go to discuss a variety of issues. Through both on-campus programming and community-based partnerships, students receive coordinated health education, assessment, counseling and other support services at no cost. Since the first Wellness Centers opened in 2000, student health and academic success have measurably improved. More than 7,500 students visit the Wellness Centers each year. To provide diverse services to the large student body SFUSD partners with more than 50 CBOs across San Francisco. These CBOs include outdoor environment and sustainability-based healthful recreational opportunities for SFUSD students.
- 100% of SFUSD schools have large playgrounds where physical education takes place and 100% of SFUSD schools are on their way to having green schoolyards that are integrated into the larger schoolyard space so that students can play in these green areas during recess. The gardens are also used during instructional time as outdoor classrooms, adding more minutes to time spent outdoors for elementary students and mostly all secondary sites. SFUSD's athletic program consists of high schools and middle schools. The middle schools participate in the following sports: basketball, baseball, softball, track, volleyball and soccer. The high schools participate in the following sports: cross country, football, golf, soccer, tennis, volleyball, spirit squad, basketball, wrestling, badminton, baseball, fencing, golf, gymnastics, soccer, softball, swimming and track.
- SFUSD offers meditation training to 100% of its staff and implements school-wide meditation sessions daily at several large secondary school sites. SFUSD offers annual wellness training sessions to 100% of staff members. SFUSD offers comprehensive benefits packages to 100% of employees, ensuring all part-time and full-time employees have health coverage. Revolution Food services are available to staff at 100% of sites.
- Three SFUSD high schools have large gardens that are highly productive. Mission, SOTA, and June Jordan High School grow food on-site, selling it to families at low cost. SFUSD participates in California Thursdays, where local California produce is featured in the school lunches on that day. For example, in October 2015, SFUSD featured potatoes from Pie Ranch, a local farm, on the menu at a high school where many students had visited or worked on the farm where the potatoes were grown. SFUSD

does this in partnership with Revolution Foods. SFUSD's Student, Family, and Community Support Department provides services to schools and communities that range from Student Nutrition Services to Athletics. Within Student Nutrition Services, SFUSD is working on major innovations in school lunch and supports the Nutrition Education Project, which supports programs such as Harvest of the Month and site nutrition coordinators.

- The SFUSD Wellness Policy was created by the SFUSD Student Nutrition and Physical Activity Committee, to address the Board of Education Resolution No. 211-12A8 (Healthy School Nutrition and Physical Exercise Policy for San Francisco Unified School District, January 14, 2003) and the Child Nutrition Reauthorization Act of 2004. This committee is composed of parents, staff, students, nutritionists, and healthcare professionals. Other health services include Asthma Management & Education Services, Caring School Communities, CDC Local HIV Prevention, Crisis Response Curriculum and Materials Review Task Force, Dental Program, Foster Youth Services, Health Advocates, Health Education Teacher-Leaders, Health Promotion Committee, Healthy School Teams, Safe and Drug-Free Schools, Safe Routes to School, Safe School Line, School Community Violence Prevention Program, Stay In School Coalition, Support Services for LGBTQ Youth Tobacco Use and Prevention Education Program. Recently
- SFUSD banned all 'electronic cigarettes' and smoking products from school grounds.
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- The SFUSD Wellness Initiative is the only school-based program for adolescent health and wellness of its kind. The Initiative is made possible through partnership between SFUSD; the San Francisco Department of Children, Youth and Their Families (DCYF); and the San Francisco Department of Public Health (DPH). Within SFUSD, the Office of School Health Programs supports and staffs the Initiative. By leveraging the resources of each agency, student health is addressed from a citywide perspective. U.C. Berkeley assists with walk- and bike-to-school initiatives; Education Outside supports cooking education; the San Francisco Department of Public Health supports nutrition, physical fitness, and the school food experience; IDEO firm and local foundations support the new vision for the dining experience; SFUSD Revolution Foods supplies new and more local foods for school lunch; and the California Department of Public Health's "Network for Healthy California" supports SFUSD's Student Nutrition Service.
- 100% of SFUSD nurses are registered nurses with a state of California School Nursing Credential. Many of the school nurses hold advanced degrees and certifications and are licensed nurse practitioners, with extensive experience working with children, youth, and their families in school based settings. School District Nurses provide nursing support at 100% of elementary schools, K-8 schools, middle schools, high schools and county schools. There are several school-based health centers in SFUSD.
- SFUSD implements meditation programs at many secondary schools since 2007. From an 8th grader: "When I started to get into it and started to do it every day, I noticed that it really helped me because I was sort of a trouble child, and then when I started to meditate, I started to become a leader, I got good grades, so it was really helpful." Meditation provides 15 minutes of silence at the start of each day.
- In 2007, SFUSD commissioned a comprehensive survey of students and staff into perspectives of school climate and safety, looking at bullying and weapons in school. Results informed SFUSD's school climate policy and implementation of Restorative Practices (RP) and anti-bullying program. SFUSD partners with Peer Resources to train students to engage, train, and advocate for peers. Peer leaders and coordinators work in 11 SFUSD high schools. The Student Intervention Team implements a framework that

brings school site mental health specialists together to provide clinical services for students in need.

Pillar III: Provide Effective Environmental and Sustainability Education

Element IIIA: Interdisciplinary Learning

- The SFUSD Curriculum & Instruction Science Mission & Vision states, "Every SFUSD student will graduate...scientifically and ecologically literate, regardless of home language, socio-economic background, ethnicity, and learning style...". As NGSS Core Curriculum develops, environmental literacy is being interwoven with the curriculum. Certain environmental and sustainability education themes will be suggested across certain grade levels. In elementary school, place-based nature-awareness experiences will be available for students to build their 'nature identity'. These place-based lessons in nature will also include sustainability lessons such as Zero Waste lessons at their school site and continued participation in energy reduction. Stewardship opportunities to care for local open spaces will be promoted in middle school alongside more complex sustainability issues such as engineering, design, and suggested trips to water treatment plants. High schoolers will be connected to leadership opportunities and internships within CTE-based pathways, such as the Lincoln Green Academy and Urban Agriculture work now found at SOTA, Mission, and June Jordan, and other fields as they continue to 'green themselves'. School sites will continue to work with students to participate in time spent in stewardship or service learning with certain partners as a portion of credit students can use towards graduation. To help students and teachers access these rich partner programs, the SFUSD Board recently funded a 'science enrichment pathway' as part of Vision 2025, or 'City as a Classroom'. Funds will cover fees for busses, subs, entrance costs, or other barriers that have traditionally limited participation from Title 1 sites. With all of this, SFUSD benefits from the continued modernization of school sites and greening of school yards. SFUSD continues to provide annual iterations of the green schoolyard vision/master plan that guides development of school grounds over time, involving staff and students.
- Currently, many high schools offer Environmental Studies classes and CTE coursework integrating environmental and sustainability concepts. At the elementary level, standardized curriculum has been developed to provide all 3rd grade classrooms an environmental science learning experience at their local park, with zero waste integrated as a pre-lesson and discussion point during their lesson. In 4th and 5th grades, SFUSD has redesigned an NGSS science overnight experience. These concepts blend environmental learning through science lessons, and students' own concepts of stewardship and self-action with Zero Waste goals and the beginnings of understanding about non-toxics and chemistry.
- As the NGSS Core Curriculum continues to develop at the elementary level, garden programming (that is now at 40+ of the 64 elementary schools) will work in partnership to become aligned with the adopted science curriculum. Concurrently, assessments are being developed that will also capture certain environmental and sustainability learning objectives. As the NGSS moves forward, professional development is being offered to help build this curriculum. Currently, SFUSD is offering various professional development sessions across departments that touch on environmental and sustainable professional development offerings for all teachers. These are offered through SFUSD departments or in partnership with city agencies, museums, and NGOs. For example, many upper elementary teachers participate in the Teacher Institute on Science and

Sustainability through the California Academy of Sciences, and many secondary teachers participate in the teacher institute at the Exploratorium. Each of these institutes provide integrated science and sustainability themes.

- At 100% of secondary schools, sites can choose to blend sustainability themes from their environmental liaison to tackle sustainability site goals that are coordinated by the Department of Sustainability. Many schools take on field trips to study environmental issues. SFUSD also continues to build and invest in development of the Environmental Science Center programming that serves to provide place-based opportunities for elementary students both in day-field studies and overnight science experiences. Through these programs, students use their neighborhoods to learn environmental education through science practices fostering ecological literacy through hands-on investigations. Students at participating Education Outside Schools benefit from an on-the-ground staff person dedicated to exposing students to the variety of green schoolyard lessons that blend science, nutrition, and community sustainability goals. Many CTE courses in San Francisco are shifting to green their curriculum, either by working with food service agencies that source their locally grown ingredients, building 'tiny homes' that take advantage of greener energy supplies, or by working to learn about the green infrastructure that is being designed at their school site through bond modernization efforts, such as water cisterns, solar panels, water refill stations and the elimination of bottled water and movement towards zero waste through district-wide composting efforts that include trips to the transfer station to learn about how their waste is diverted.

Element IIIB: STEM Content, Knowledge, and Skills

- SFUSD is currently developing its STEM core curriculum. As part of the core curriculum the Blueprint for Environmental Literacy will offer guidelines to building out PK-12 core curriculum specifically in alignment with NGSS. There are many high school academic courses that touch on sustainability and the environment issues, including AP Environmental Sciences, Marine Science, and dozens more.
- As part of the SFUSD goal for Vision 2025 or “City as a Classroom,” efforts are being made to develop core curriculum in a manner that uses local environmental and sustainability concepts for real-world learning. To assist this, the SFUSD board authorized funds developing a Science Enrichment Pathway, allowing 100% of students to have meaningful science and environmental experiences, and eliminate the barriers of bus funds, sub funds or entrance fees that may not be available equally at each school site.
- Middle schoolers are exposed to city infrastructure and real-life engineering investigations through visiting the water treatment plant and other partner opportunities, as well as stewardship with drought-tolerant native plants as an erosion and stewardship practice in local opens spaces in partnership with the parks and NGO agencies that support this work. Middle schoolers also benefit from availability of iPads for students.
- Many secondary teachers are taking advantage of citizen-science offerings that are available to students through the California Academy of Sciences and NOAA that provide opportunities for students to collect data about their local environment and assist in interpreting longitudinal data. CTE programs are providing students with green professional career options and internships.
- The CTE pathways are developing many green options as many local industries are becoming more green. The Building Construction and Trades, Energy and Utilities, and

Engineering & Architecture academies are benefitting from internships with city agencies like SFPUC that highlight sustainability and environmental goals of conservation.

- John O'Connell High School is targeting Environmental Technology as a goal of its pathway.
- Mission High School and now SOTA High School are developing an Urban Agriculture pathway in which students learn deeply about their connection to food, food justice, and relationships to the rich food industry of San Francisco. Coursework for Urban Agriculture at Mission now qualifies as a D-Lab course for UC college/universities.
- Lincoln Green Academy offers sophomores the Green Ambassadors elective, a project-based course that includes a number of field trips across San Francisco and earns them College Career credit.
- Lincoln Academy offers Green Engineering in junior year, which offers students a real world opportunity to discover and understand principles of physics, engineering, design, and green-clean technologies. Courses meet UC A-G requirements.
- Green technology and career pathways have motivated students by allowing them to interact with professionals, and ask questions about “what it takes” for students to be working in these career fields. These pathways are a 'win-win' as the exposure to a variety of new and growing job fields is exciting for students, and local employers are encouraged by their opportunities to provide meaningful internships and summer employment opportunities to motivated high school students.

Element IIIC: Civic Knowledge and Skills

- Currently many SFUSD classrooms and schools have deep and meaningful relationships with CBOs focused in environmental sustainability topics with Vision 2025 in mind.
 - More than 60% of elementary schools sites host an Education Outside staff person dedicated to K-5 education of these topics. The SFUSD Environmental Science Center and independent partner providers help to fill the gaps in schools that may not have a dedicated staff member.
 - Middle and high schools work on a site-by-site stewardship basis with environmentally/sustainability-focused programming.
 - With the development of the PK-12 pathway and a full-time coordinator, equity and access will be ensured so that all students will work in partnership to become involved in environmental/sustainability concepts through each grade level of their career.
 - Current Department of Sustainability Environmental Liaisons working at 100% of SFUSD sites promote on-the-ground student and staff involvement in shared savings, diversion, and to communicate things that they can do to green their own school sites, as well as promote professional learning opportunities and other resources that are available for students and staff to become involved with (i.e., College and Career Fair Days, student workshops at local universities, internships for students at local museums, city agencies and parks).
 - Many high school classes require a service or volunteer component of students (in environmental/sustainability areas) as a portion of their graduation requirement or portfolio.

- A full-time position was created to help coordinate and support Vision 2025 in the District. This pathway coordinator will work with the dozens of SFUSD network of CBO, Postsecondary, Museum, and City partners that provide Science, Stewardship, and Sustainability programming opportunities for teachers and students. This collaborative, "The 4S," also overlaps with many partners and city agencies who have created the San Francisco Children's Outdoor Bill of Rights. In October 2014, San Francisco City and County government formally recognized that "...direct exposure to nature is a necessary component of a child's physical and emotional wellbeing, and cognitive development." This bill supports the 54,000+ youth who are enrolled with SFUSD, more than half of the youth population who live in San Francisco. The following are the ten experiences explicitly named in the bill: Explore all wild places in the city; harvest and eat a fruit/vegetable; plant a seed and watch it grow; visit and care for a local park; splash by the ocean/bay; play in the sand/mud; discover urban wildlife; sleep under the stars; climb a tree; and ride a bike. These will be part of the PK-12 pathway.
- While SFUSD contributed to, and helped promote, the most recent iteration of the 2015 Living Schoolyard Month Activity Guide, SFUSD also does whatever it can to promote, celebrate, and utilize its living schoolyard network to 100% of sites each and every month! Most recently, SFUSD is working in partnership with an organization called the Shared Schoolyard Project to keep the living schoolyards and play spaces open as community resources during weekends. The San Francisco Shared Schoolyard Project aims to provide a safe, clean space for the city's children and families to play and gather. Currently, 28 school sites are participating in this program. Also, SFUSD closely partners with many Living Schoolyard Month contributors; Education Outside, California Academy of Sciences, San Francisco Botanical Gardens, The Presidio Trust, SFPUC, and the Coastal Commission all work closely with SFUSD to provide professional development, resources, and programming to support environmental and sustainability literacy opportunities, as well as these outdoor schoolyard suggestions that many SFUSD teachers can or currently use in their living schoolyards.
- At the elementary level, 63% of schools partner with Education Outside, which provides not only science instruction outdoors, but math, language arts, and a variety of stewardship/sustainability civic lessons that are appropriate at the elementary level. For elementary schools that do not have an Education Outside team member or supportive garden staff, the SFUSD Science Department partners providers with underserved school sites who may not have access to these sorts of opportunities.
- The SFUSD Environmental Science Center also fills the gaps to provide no-cost day programming for elementary students as a day trip for grade 3, and an overnight experience for grades 4 and 5. Priority is always given to Title 1 school sites. The SFUSD Environmental Science Center programming blends science instruction with sustainability goals that students and families aim to achieve, as well as stewardship and responsibility ethics that are highlighted when students attend programming at one of their local outdoor public spaces. Students learn that these areas belong to them, were designated to remain natural spaces because of people's interests, and are designated as city or national park lands that now belong to everyone. Students and families learn that it is up to us, now that we have been educated, to care and steward these areas. Middle schoolers use stewardship and sciences to participate in 'give back' opportunities in local outdoor spaces with the NPS; "Youth Stewardship Program" or the "Kids in Parks" program that works with some of the most underserved schools to help restore wildlife habitat.

- High school students participate in various academic pathways, such as the Lincoln Green Pathway, that provides outdoor experiences for students to learn more deeply about how they can influence the environment for better or for worse. More information on the Lincoln Green Pathway can be found here: <http://www.lincolnhigh.net/academy/green/overview>.
- The local community is provided with information that is kept timely, relevant, and public through Green Schools Dashboard found at www.GreentheNextGen.org, through Twitter accounts, and through the homepage of the SFUSD main site: <http://www.sfusd.edu/en/curriculum-standards/sustainability-and-environmental-education.html>.
- Coordinated efforts in environmental education rose in tandem with the creation of the Golden Gate National Recreation Area in the 1970s, followed by the creation of the SFUSD Environmental Science Center (ESC) in 1976. The ESC continues to provide elementary overnight environmental learning experiences at no cost for classrooms. In the 1980s, the ESC partnered with San Francisco municipal utilities (water, waste, power, and sewer), beginning the integration of sustainability messages in standardized education work and providing professional development to a large number of elementary teachers. At this same time, many individual schools sites began their own relationships with partner providers to develop a sustainability ethic, and a more standardized integrated network of partners emerged as the science collaborative (now “4S”). In 2008, the SFUSD Sustainability Department was created, allowing district-wide coordinated oversight into all facilities improvements and practices. This oversight is connected to bond modernization at all sites, which includes the development of a green schoolyard on each and every campus. In 2011, SFUSD Sustainability—in coordination with SFUSD Curriculum and Instruction—began providing environmental liaisons 100% of sites. Liaisons provide on-the-ground school support working to reduce utilities costs; targeting 100% landfill diversion; supporting walk/roll to school, wellness, and other campaigns; and promoting professional development opportunities to site staff. Currently, the Next Generation Science Standards are encouraging a PK-12 pathway of meaningful environmental experiences that is being developed in partnership with 4S collaborative partners.



Clockwise from bottom: A student admires fennel growing in the Claire Lilienthal Madison campus school garden; Students become soil doctors and discover the composition of soil with SFUSD partner, Education Outside; Students explored the Aptos Middle School campus and tagged photos explaining how pollution can end up in the water supply; Students observe worms in garden class; the SFUSD STEM team hosted four activity booths at the Bay Area Science Festival (2015).

Online outreach is a huge part of SFUSD's sustainability strategy—via District Web pages as well as social media. Some examples are below:



Science Team @SFUSD_Science · 23 Jun 2014
Excited to be a member of @CADeptEd's Environmental Literacy Task Force working to build a blueprint for environ ed.

