

U.S. DEPARTMENT OF EDUCATION

GreenRibbonSchools

School Nominee Presentation Form

ELIGIBILITY CERTIFICATIONS

School and District's Certifications

The signatures of the school principal and district superintendent (or equivalents) on the next page certify that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct to the best of their knowledge. *In no case is a private school required to make any certification with regard to the public school district in which it is located.*

1. The school has some configuration that includes grades early learning to 12.
2. The school has been evaluated and selected from among schools 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 and sustainability education.
3. Neither the nominated public school nor its public school district is refusing 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. The Department of Defense Education Activity (DoDEA) is not subject to the jurisdiction of OCR. The nominated DoDEA schools, however, are subject to and in compliance with statutory and regulatory requirements to comply with Federal civil rights laws.
4. OCR has not issued a violation letter of findings to the public school district concluding that the nominated public school or the public school district as a whole 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.
5. The U.S. Department of Justice does not have a pending suit alleging that the public school or the public school district as a whole has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
6. 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 public school or public school district in question; or if there are such findings, the state or public school district has corrected, or agreed to correct, the findings.
7. The school 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

Name of Principal: Mrs. Jas Bains Wright

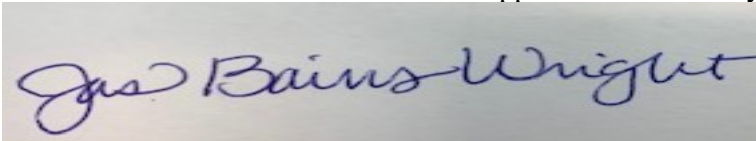
(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in the official records)

Official School Name: Suisun Valley Elementary K-8 School

(As it should appear on an award)

**Private Schools: If the information requested is not applicable, write N/A in the space*

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



(Principal's Signature)

Date: 1-19-22



Name of Superintendent: Ms. Kris Corey

(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in official records)

District Name: Fairfield-Suisun Unified School District

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 "Kris Corey".

Date: 1-19-22

(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 school's eligibility and compliance with the following requirements is true and correct to the best of the Authority's knowledge.

1. The school has some configuration that includes grades Pre-K-12.
2. The school 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 and sustainability education.
3. The school 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 Tony Thurmond

(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

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

A handwritten signature in blue ink, appearing to read "Tony Thurmond".

Date: February 15, 2022

(Nominating Authority's Signature)

SUBMISSION

The nomination package, including the signed certifications, narrative summary, documentation of evaluation in the three Pillars, and photos should be submitted online according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509

Expiration Date: December 31, 2023

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.



Suisun Valley School

California School Nominee to
U.S. Department of Education Green Ribbon Schools



Prepared By:
California Department of Education
School Facilities and Transportation Services Division
[Green Ribbon Schools Award Program](#)
February 2022

PART II – SUMMARY OF ACHIEVEMENTS

Suisun Valley School, Fairfield, Calif.

Agriscience Leads the Way for Whole-School Sustainability

Located in the heart of Suisun Valley, an American viticulture area, Suisun Valley School (SVS) is an exemplary K-8 school in the Fairfield Suisun Unified School District (FSUSD). Over the past 100 years, SVS has evolved from a small four-classroom school servicing only local farm families to a thriving agriscience K-8 school serving over 450 students. Since SVS is the only local K-8 thematic school focusing on agricultural technology within an open enrollment district, the student population represents all surrounding neighborhoods, ethnicities, socio-economic levels, and backgrounds.

The school is located within the Suisun Valley grape-growing region east of the world-renowned wine region, Napa County. Given the economic significance of agriculture in the region, the school's proximity to prime agricultural land, and the community's vision of supporting profitable family farms, the thematic agriscience K-8 school positively impacts the students and the community.

SVS has received a number of awards that recognize the school for its outdoor education program and its ability to connect environmental literacy to all curricular areas. In 2014 and 2015, SVS received the Campaign for Business & Education Excellence (CBEE) state award for successfully implementing an agriscience program, creating well-developed outdoor learning areas, and ensuring students meet or exceed grade-level proficiency. SVS has also received the California Gold Ribbon (2015) and the California Golden Bell (2016), recognizing the agriscience program.

The school has grown exponentially in the past 11 years, doubling the student population and adding multiple new buildings. With each new building, a focus on energy efficiency, ambient heat and lighting, renewable materials, and green energy consumption has been a driving consideration. In 2013, the school constructed seven solar classrooms featuring solar tube lighting fixtures that shortened the time needed for electric lighting by 90% while providing healthier, natural light to occupants. In 2019, SVS built an 8,000 square foot library, office, staff workspace, and Innovation Lab complex using state-of-the-art materials and systems. The building offers abundant access to natural light with multiple solar tube lights in interior rooms, transom windows, and large windows on every wall throughout the complex. Additionally, the complex features superior insulation (reducing the need for heating and cooling), natural gas energy use, and water-wise plumbing. In 2021, the new complex received the Outstanding Project by Learning by Design - Awards of Excellence, noting that the design is exemplary due to the emphasis on natural lighting, natural colors, and views that allow the building occupants to connect with the surrounding landscape.

With the campus growth and new buildings, all landscaping reflects best practices in water use, reliance on native plants, and innovative water reclamation systems. SVS has a trench drain to reduce stormwater runoff, redirecting it to open space so it may permeate the ground surrounding the site. All campus landscape planting is xeriscaping, reducing the amount of irrigation needed. Site irrigation uses targeted drip systems, allowing for specific areas to be watered while maximizing water conservation and absorption. Sixth-grade students designed and currently maintain two 2,500-gallon cistern rain harvester systems that function with solar and wind energy. Since the school is in a dual-irrigation (agricultural, potable) water service area, the agricultural water is turned off with the seasons. The school provides its own irrigation

water from its rain harvesters. The water collected is utilized in the garden when Solano Irrigation District turns the outside water off from October to April, thus providing a plan for a greener approach to off-season irrigation.

SVS composts all of its green waste on-site. SVS accomplishes this beginning with an extensive, roll-in three-stall compost system designed and managed by students. Garden waste, chicken manure, and other compostable items are added in phases and rotated through the stalls, promoting compost development used to amend the site's raised beds. The school uses another city-run compost system to process garden compost, yard waste from the site's landscape maintenance, and cafeteria food waste. SVS also raises chickens to consume garden and food waste and contribute organic fertilizer to the school garden. Depending on the season, the school's chickens consume up to 25 percent of the school's waste. In addition to the composting program and chickens on campus, SVS also has an active vermiculture program for composting food waste and creating amended soil. The compost systems, chickens, and vermiculture program eliminate the school's cost for green waste removal.

In 2020, SVS made progress towards reducing the heat island effect by applying a cool roof system on all new buildings and the school's original building. Eaves on the new administration and library building cover approximately 2,100 square feet of concrete, providing ample shade, cooling, and protection for the building, and housing planters for drought-resistant plants.

SVS staff are committed to providing a safe school environment limiting exposure to potentially hazardous substances used in educational programs, facilities, and equipment. For example, the school's janitorial staff use the Buckeye Eco proportioning system, a closed system that prevents employees from coming into contact with the concentrated chemicals. The system automatically dilutes and distributes the product, saving money and reducing the amount of packaging needed to store products. In addition, the custodial staff uses Clarion 25 with Microban to wax floors. The product reduces the reproduction of bacteria on surfaces.

SVS employs a full-time agriscience teacher to oversee the school's two-acre farm. The teacher designs and coordinates agriscience lessons and project-based learning activities to engage students in caring for all aspects of the school's garden. Students gather in one of the school's five outdoor classroom areas to participate in various activities, including crop propagation, food preparation, science experiments, and hands-on projects. In addition to the extensive hands-on garden experiences, the SVS agriscience program also offers an opportunity for middle school students to manage and care for the eight chickens who reside on campus full-time.

To promote healthier cooking options, the school offers virtual Family Cooking Nights quarterly in which students, families, and staff participate in an after-school guided cooking lesson led by the agriscience teacher. Participants receive a selection of ingredients provided by the school to cook a healthy recipe during the virtual class. During the class, all participants learn the health and nutrition benefits of the grocery items while learning how to prepare a complete meal. To date, over 150 families have participated in the virtual cooking program.

SVS combines food, nutrition, and physical health education in a partnership between the agriscience teacher and the physical education team. Teachers link what students are growing and eating in the garden with health education focused on nutrition and movement. Students participate in the entire farm-to-fork cycle, directly linking healthy soil, healthy produce, healthy food choices, healthy humans, and a healthy planet. Working in tandem, the team provides a holistic approach to health, wellness, and educating SVS's students in green practices.

SVS's agriscience program is an innovative approach to teaching the California Next Generation Science Standards (CA-NGSS) through agriscience learning activities. The school's two-acre farm laboratory provides several learning opportunities featuring three outdoor classroom areas, a three-tower indoor hydroponic center, an outdoor kitchen classroom, a greenhouse, a quarter-acre of field crops, 104 raised beds, 29 fruit trees, a vineyard, a quarter-acre permaculture guild area, an eighth-acre California native garden section, eight egg-producing chickens, and seed/cutting production areas. The goal of the agriscience program, in addition to teaching and reinforcing state science standards, is to teach K-8 students the origins of food, how it is grown or produced, and the vital role that agriculture plays in human survival.

Students develop a deep understanding of Science, Technology, Engineering, Art, and Math (STEAM) skills with farm laboratory projects. For example, the farm's 104 raised planter beds were student-designed and built. In the initial build, seventh-grade students researched different garden box designs to maximize vegetable production. Then, the students worked with a team of Genentech employees to have the boxes installed. Recently seventh and eighth-grade students re-engineered and built garden boxes with retrofitted irrigation systems to maximize targeted irrigation practices while minimizing waste through a drip irrigation system.

SVS prioritizes teacher training to ensure the school's agricultural curriculum aligns with the CA-NGSS. All SVS teachers learn standards-based activities at professional development workshops led by the University of California at Santa Cruz's Life Lab. Additionally, staff and students work closely with local experts from the Solano County Master Gardeners and Solano Community College Horticulture Department to further develop their expertise in agriscience.

Most of the civic engagement opportunities offered at SVS are around food insecurity, on-campus service, and community outreach. Each summer, the school's garden becomes a community gathering place and food source. The school's student council also hosts food drives and educational programs throughout the year to promote an awareness of food insecurity in the city and surrounding areas. The school's agriscience teacher, administration, and volunteers host pop-up produce stands featuring produce harvested from their garden. Students, families, and local community members are invited to gather fresh produce at no cost. Students who have graduated from the school regularly return to lead current students in service. The school welcomes alumni and is the recipient of many service-related projects such as trellises built over garden boxes, benches throughout the school, a large composting complex, raised planters, garden classroom overhaul, and areas carved out for quiet reflection in the garden classrooms such as a reading fort constructed from upcycled bike wheels. SVS students act as agriscience ambassadors for their families and the local community. SVS teaches an array of subjects in context, engaging the broader community including hands-on experiences at local farms, researching local wetlands, and collaborating with local universities to learn about agricultural genetics and waste deferral options.

SVS shows excellence in resource efficiency, health and wellness, and environmental and sustainability education. The school has established many collaborative partnerships with local farmers, farm stands, and non-profit agencies. As a result, the school's environment allows students to learn from hands-on activities focused on permaculture practices and the CA-NGSS in the SVS agriscience program.

PART III – DOCUMENTATION OF STATE EVALUATION OF DISTRICT NOMINEE

Pillar I: Reduce Environmental Impact and Costs

Element IA: Energy

- SVS reduced non-transportation energy use by 8% from 2017 to 2019.
- In early 2018, the district's Energy Committee developed a draft of the Fairfield-Suisun Unified School District (FSUSD) Energy Conservation, Recycling, and Building Management Guidelines. The committee consisted of teachers, maintenance, technology services, custodial, principals, and union representatives. In May, the FSUSD Governing Board approved the guidelines. The guidelines are a standard for the district's green school building operations as well as standards for recycling, green procurement, sustainability practices, and energy and water usage.
- The school's energy is obtained from MCE Community Choice Energy (MCE) and distributed by PG&E. MCE procures energy from clean, renewable sources such as solar, wind, biogas, geothermal, and small hydroelectric. Not only is MCE power greener, but it's also as local as possible. SVS is on MCE's Light Green Service at 60% renewable energy, which is the portfolio minimum. However, MCE's minimum is double the renewable energy of PG&E's default service. The renewable energy for SVS comes from the following types: biomass and bio-waste (1.6%), geothermal (3.3%), eligible hydroelectric (6.1%), solar (20%), wind (29%), coal (0%), large hydroelectric (29.3%), natural gas (0%), nuclear (1%), unspecified sources of power (9.7%).
- In 2013, the school constructed seven solar classrooms featuring solar tube lighting fixtures that shortened the time needed for electric lighting by 90% while providing healthier, natural light to occupants. Unlike traditional skylights, solar tube lighting is designed to capture sunlight and deliver it to the classroom.
- In 2019, the school built a new library and administration complex focused on resource conservation and sustainable building design. The building's energy efficiency measures feature the following:
 - Extensive daylighting, a large storefront glass system in the main office, and clerestory windows throughout allow maximum daylight and energy savings.
 - An HVAC system with a hydronic piping system circulates water through pipes to provide heating and cooling to the building through Variable Air Volume (VAV) mixing boxes. The hydronic VAV system is considered an eco-friendly alternative to electric systems and reduces net energy consumption.
 - Six large industrial fans, specifically designed to efficiently move massive amounts of air, create a perceived cooling effect of up to 10° Fahrenheit. The fans use minimal energy, reduce bills by up to 30%, and are 76.2% better in energy compliance over the standard Title 24 requirement.
- In October of 2021, SVS received the Outstanding Project by Learning by Design - Awards of Excellence, for the new library and administration complex. The recognition noted that this project is exemplary because the design emphasizes natural lighting, natural colors, and views that allow the building occupants to connect with the surrounding landscape.
- For the portions of the campus built before 2016, the school replaced air-conditioning units with energy-efficient units and upgraded all exterior lights to LED and photocells. In

addition, the entire campus received a new energy management system controlling the HVAC units to reduce energy use. SVS used Proposition 39 (California Clean Energy Jobs Act) funding to install motion-sensing LED lighting and heating/lighting controls.

- In 2020, SVS made progress towards reducing the heat island effect by applying a cool roof system on all new buildings and the school's original building built in 1957. The product used is an ENERGY STAR-approved white urethane modified acrylic roof coating with a reflectance rate of 81%. In addition, the roof system membranes contain recycled or bio-based materials certified by a third party. The school further reduces the heat island effect on the new administration and library building with eaves covering approximately 2,100 square feet of concrete. Eaves provide ample shade, cooling, and protection for the building and are used to house planters to grow drought-resistant plants.
- During recent construction, SVS installed planters with trees and shrubs. All hardscaping surrounding buildings is reflective and provides coolscape areas, lowering ambient temperatures and capitalizing on raised beds containing shade trees. The playground houses two large pole barns that provide shade and additional workspaces for students. The playground structure is also surrounded by bark and has a large shade tree to provide more natural cooling.

Element IB: Water and Grounds

- Even with the large size of the school's garden and the need for additional water in their agriscience program, SVS documents a 35% reduction in indoor water use and an 8% reduction in outdoor water use from 2016 to 2020.
- The school's indoor and outdoor water use is metered separately. Solano Irrigation District provides all site water as either agricultural or potable.
- Since the school is in a dual-irrigation (agricultural, potable) water service area, the agricultural water is turned off with the seasons. The school's access to county agricultural water, used for outdoor watering, is turned off between October and April. SVS addresses this issue with a trench drain to reduce stormwater runoff and gutters to capture potential irrigation water. In addition, a reclamation water storage system tied to two 2,500-gallon rain-harvesting cisterns offsets county water use. The school provides its own irrigation water from its rain harvesters, providing a sustainable approach to off-season irrigation.
- All students, grades K-8, participate in waterwise lessons in the agriscience program. Students work to conserve water and design targeted watering options. For example, sixth through eighth-grade students researched, designed, and installed a complete recapture system. The system uses water runoff from classroom roofs channeled to two large cistern storage tanks. Once captured, water is pumped using a solar-powered on-demand pump. This conservation method allows for year-round irrigation when water is unavailable from the county.
- At the beginning of the 2019–20 school year, SVS mitigated their need for watering with a site-wide (excluding the garden) irrigation system upgrade. The system uses solar-powered drip irrigation. Later in the school year, the irrigation system for SVS's two-acre garden was also rebuilt and redesigned with water-wise drip irrigation. All 104 raised beds are currently on drip systems with timers set to irrigate only when necessary.
- The school has installed indoor water-reducing fixtures around the campus. Retrofitted classroom faucets provide waterwise flow, and all sinks accessed by students are on a metered flow faucet to limit the overuse of water. Additionally, the two dishwashers on-

site are low-flow energy-wise units designed to use minimal water each cycle. Inside the buildings, high-efficiency urinal flush valves (1.28 Gpf/4.8 Lpf) are installed in all the restrooms. The toilets are low-consumption (1.6 Gpf/6.0 Lpf), further helping SVS reduce water use.

- SVS has one Hydroboost Bottle Filling Station on campus with a high-performance compressor and insulation that significantly reduces energy consumption. In addition, the school supplies every student with a reusable water bottle to discourage single-use bottles.

Element IC: Waste

- SVS documents a 16% diversion rate from recycling. The school's recycling and waste hauler, Republic Services, provides monthly diversion rate reports tracking the weight of food waste, recycling, and municipal solid waste that is picked up each week. For 2019, SVS averaged 62 pounds of food waste and 735 pounds of recycling each month.
- SVS raises chickens to consume garden and food waste and contribute organic fertilizer to the school garden. Depending on the season, the school's chickens consume up to 25% of the school's waste. In addition to the composting program and chickens on campus, SVS also has an active vermiculture program for composting food waste and creating amended soil.
- SVS has a school-owned, roll-in three-stall compost system designed and managed by students. Garden waste, chicken manure, and other compostable items are added in phases and rotated through the stalls, promoting compost development used to amend the site's raised beds. In addition, the school has a City of Suisun-run compost system allowing for garden compost, yard waste from the site's landscape maintenance, and the cafeteria food recycling program. The compost systems, chickens, and vermiculture program eliminate the school's cost for green waste removal because the site's waste management company no longer picks up the green waste generated at the school site.
- The City of Fairfield provides SVS with mulch from local tree-trimming, resulting in over 2,800 cubic yards of mulch being diverted from the local landfill annually. The mulch prevents weed growth and erosion while preserving irrigation efforts.
- Staff minimizes the quantities of hazardous substances stored and used on school property. When school staff must use hazardous substances, they give preference to materials that cause the least risk to people and the environment. The Custodial Department is transitioning to using green and environmentally safe chemicals for cleaning and disinfecting. The Maintenance Department collects all potentially hazardous building materials such as light bulbs and ballasts for safe recycling.
- SVS's total paper content is 95% post-consumer material, fiber from forests certified as responsibly managed, and chlorine-free. The school's paper supplier, Liberty Paper, works exclusively with mills that have the highest environmental standards.
- Buckeye Eco provides custodial supplies. The products work more efficiently with recyclable and biodegradable packaging, allowing the custodians to use less product with less waste. Packaging is made with hermetically sealed bags manufactured with 83% less plastic than rigid containers with 100% recycled paperboard packaging.

Element ID: Alternative Transportation

- SVS is located in an unincorporated area lacking the infrastructure to support active transportation. As a magnet school, students live in all corners of the district. To limit

overreliance on individual vehicles, an estimated 75 percent of SVS students arrive on campus in a carpool arrangement.

- Working in partnership with the SVS Parent Club, SVS encourages all parties arriving on campus to use the large parking facility for carpool pick-up instead of idling in the loading line. Parents using the loading line are staged in batches to park in one of eight stalls, turn off their cars, and students are called over the loudspeaker to walk to their vehicle. As a result, the school has maximized its efficiency of loading over 400 students in less than 15 minutes.

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

Element IIA: Environmental Health

- In 2018, the FSUSD Governing Board approved a policy to provide a safe school environment that limits exposure to any potentially hazardous substances used in any district's educational programs, facilities, and equipment.
- SVS follows its district's guidelines on all aspects related to the California Healthy Schools Act and Integrated Pest Management (IPM). All FSUSD sites are inspected every one to two weeks for pest issues. Any trapped pests are handled using the least toxic control alternative first. As a last resort, the staff uses the proper pesticide.
- FSUSD's policy is only to apply pesticides classified "caution" or lower unless receiving permission from the district's IPM coordinator. Although very rarely used, the school prioritizes the use of pesticides when staff and students are not at the affected site. When this is not possible, the person applying the pesticide remains in the area for the full dwell time to ensure no one enters the area.
- The district's Maintenance Department has an asbestos management plan that the school follows. Any known asbestos at the school has been encapsulated and removed from older buildings more than ten years ago per the Asbestos Hazard Emergency Response Act. In addition, SVS sealed all its slabs and exterior walls against radon.
- The school has a chemical management program that includes: a chemical purchasing policy of products with low- or no-volatile organic compounds (VOC), selecting third-party-certified green cleaning products whenever possible, safe storage and labeling, training on handling, chemical inventory, hazard communication (clean-up and disposal), and a purchasing policy for less toxic art supplies.
- SVS janitorial staff use the Buckeye Eco proportioning system, a closed system that prevents employees from coming into contact with the concentrated chemicals. The system automatically dilutes and distributes the product. Proportioning systems, as well as chemicals, are kept behind locked doors.
- FSUSD provides training sessions for all employees who handle hazardous chemicals. The district's state-licensed pest control personnel complete state-mandated training on a biannual basis. Identified staff also attend workshops when available. All grounds maintenance personnel receive monthly training on equipment calibration and the proper handling of products. In addition, each year, the district has mandated Department of Pesticide Regulation training for any employee using disinfectants and other pesticides.
- The custodial staff uses Clarion 25 with Microban to wax their floors. When microbes contact the product surface, Microban technology penetrates the microorganism's cell wall and disrupts the cell, making the microorganism unable to grow and reproduce. Additionally, FSUSD custodial staff use vacuum cleaners with HEPA filters and all

classrooms and student or staff meeting areas have HEPA air purifiers. SVS custodial staff deep cleans classrooms annually and routinely cleans rooms each day using low-emission cleaning products.

- School buildings are designed and engineered to maximize good acoustics with consideration toward materials in carpets, walls, ceiling panels, furniture, and windows.
- Beautiful farms and vineyards surround SVS. All indoor classrooms have windows providing views of the bucolic surroundings and green space.
- SVS's campus has five outdoor locations for class instruction and learning. All outdoor classroom areas offer full shade or filtered shade, and weather-ready seating that can accommodate a variety of activities, including classwork and instruction, crop propagation, food preparation, science experiments, and hands-on projects and activities. The areas and frequency of use are as follows:
 - Two large pole barns with work and activity tables, each having a capacity for up to 220 students, used daily.
 - One outdoor classroom with shade cloth covering, bench seating, work table, and whiteboard seating for one class up to 40, used 3-5 days per week.
 - One outdoor kitchen classroom with shade cloth covering, 14 tables that convert from table workspaces to benched seating depending on need, a propane grill and multiple industrial sinks, as well as a stainless steel preparation table. Seating for up to 60, used daily.
 - One outdoor classroom with shaded table/bench seating for up to 40, used 3-5 days per week.
- SVS maintains, cleans, and replaces HVAC filters every three months. Annual, thorough HVAC maintenance is performed including coils, supply/return grill cleaning, belts inspection, and system lubrication.
- In response to COVID-19, SVS increased ventilation in buildings to improve air quality. All site ventilation systems have HEPA filters, and each classroom has a plug-in air purifier with a HEPA Medi-Filter Cartridge capable of capturing harmful particles down to 0.1 microns in size. The air purifiers, purchased with Elementary and Secondary School Emergency Relief II (ESSER II) funding, can provide 100% fresh or purified air to classrooms once every hour.
- FSUSD performs annual roof preventive maintenance to prevent water intrusion. Proper ventilation controls humidity and condensation. Should a leak occur, district personnel remove all wet materials and make the repair. Mold is expeditiously remediated either by FSUSD or an outside firm.
- SVS's classrooms and other buildings are cleaned and maintained to prevent worn surfaces or paint peeling. FSUSD has trained personnel who regularly check and monitor the site to ensure lead-safe facilities and finishing materials. Peeling paint containing lead is abated during painting activities, and intact surfaces get painted over. In addition, school staff test any new soil brought to the site from an outside source for lead.
- FSUSD personnel conduct inspections based on the EPA's IAQ Tools for Schools to monitor for unauthorized chemicals, dust accumulation, furnishings, and items that are not cleanable. District policy is that site furniture is limited to a non-porous type fabric. Additionally, items like cloth, stuffed animals, pillows, air fresheners, and live pets are prohibited.

- SVS's potable water is surface water sourced from Lake Berryessa. The Putah South Canal transports this water to Solano Irrigation District's Cement Hill Water Treatment Plant, where it is treated to drinking water standards before distribution to customers. The facility includes three clarifiers for coagulation, flocculation, and sedimentation. This process then puts the water through ten dual-media pressure filters to meet strict standards of clarity. Finally, chlorine is added to the water to meet surface water treatment and water quality regulations.

Element IIB: Nutrition and Fitness

- SVS employs a full-time teacher of agriscience who works with first through eighth grades for a minimum of 64 minutes each week. The agriscience teacher also collaborates with the kindergarten staff, who provide the agriscience lessons to their own students.
- SVS combines food, nutrition, and physical health education in a partnership between the agriscience teacher and the physical education team. Teachers link what students are growing and eating in the garden with health education focused on nutrition and movement. Students participate in the entire farm-to-fork cycle, directly linking healthy soil, healthy produce, healthy food choices, healthy humans, and a healthy planet. Working in tandem, the team provides a holistic approach to health, wellness, and educating SVS's students in green practices.
- All students participate in guided food preparation and tasting lessons using produce from the school garden during the instructional day. A local vendor/farm stand provides any additional produce needed.
- The school offers virtual Family Cooking Nights quarterly in which students, families, and staff participate in an after-school guided cooking lesson led by the agriscience teacher. Participants receive a selection of ingredients provided by the school to cook a healthy recipe. During the class, all participants learn the health and nutrition benefits of the grocery items while learning how to prepare a complete meal. To date, over 150 families have participated in the virtual cooking program.
- The school is located within the Suisun Valley grape-growing region and has developed close working relationships with many local vintners. Many local organic farms have opened their surrounding properties for SVS students to explore various topics such as organic farming practices, soil chemistry, beneficial insects, animal husbandry, oil processing, plant genetics, and plant grafting.
- SVS has a full-time physical education teacher who meets with students at least 120 minutes per week for supervised physical education. The program's goal is to establish a love for movement, activity, and exercise while developing essential skills for kinesiology.
- SVS students are in a climate that supports outdoor physical education. Approximately 95% of SVS's physical education takes place outdoors. The occasional rainy day or smoke from a wildfire are the only instances when students receive indoor instruction.
- The physical education program makes good use of five outdoor classrooms complete with whiteboards and necessary tools to teach and design lessons that support a well-rounded physical education curriculum.
- SVS students assess their health, fitness, and habits throughout the year. Students learn common indicators of poor health and strategies to supplement daily routines to improve these areas. SVS's most extensive health integrated assessment is the California

Physical Fitness Test. Although only fifth and seventh-grade students submit their scores to the department of education, every student learns how to go through the various assessments and understands what outcome is considered "healthy" for any age. The 2016–17 student scores compared to 2017–18 scores show consistent growth with a 17% and 20% increase in scores for fifth and seventh grades, respectively. Compared to students around the state, SVS scored over the average by 17.5% for grade 5 and 10% for grade 7.

- SVS has standard playground equipment as well as alternative items such as mega-sized game boards, extra-large Jenga blocks, and obstacle course items. FSUSD has approximately \$2 Million of COVID relief funds allocated to cover the cost of building and installing shade structures to support outdoor learning at SVS. These structures will provide sun and weather protection, extending the outdoor areas used to accommodate students in all areas of instruction and allowing for the use of the space year-round. Construction is set to begin in June 2022 and be completed by August 2022.
- SVS offers a robust after-school sports program of coached team sports for sixth through eighth grades. The school has a no-cut policy; any student who wishes to participate can do so. SVS also offers a school staff-coached Girls on the Run program for third through eighth grades. When the school engaged in distance learning, health and wellness programs were delivered virtually. In-person programs have continued for the 2021–22 school year.
- SVS staff coach students in mindfulness practices. The Health and Wellness staff meet each week to collaborate and plan a cohesive instructional model across the curriculum, taking a holistic approach and providing instruction and support to all students with a focus on physical health, mental health, emotional health, and academic development.
- Since 95% of the physical activity and agriscience instruction occurs outside, SVS ensures all students are educated in SunWise behaviors. The school applies the SunWise principles by encouraging all students to wear protective clothing and sunscreen each day. Students work outside under shade structures or umbrellas to minimize extended sun exposure when possible.
- FSUSD offers staff a variety of wellness programs, including weekly yoga/flexibility classes and opportunities to meet with peers while hiking or enjoying other outdoor activities. Staff members routinely participate in fitness challenges, teaming up to challenge members at other sites for movement, mileage, or exercise duration goals.
- FSUSD is attentive to the attendance rates of both students and staff. Staff members can receive mental health services when needed. All staff members are also provided with support when an individual shows excessive absenteeism. The approach for staff members who are frequently absent is one of support and outreach.
- SVS focuses on a holistic approach to the health and wellness of students and staff. Students and staff play together, prepare and eat what is grown, and participate in varied mental health initiatives such as mindfulness practices and community circles. SVS offers fresh produce year-round to staff members. In addition, many staff members participate in regularly-scheduled staff challenges led by the physical education teacher.
- SVS's full-time school psychologist facilitates conflict resolution and provides coaching and support for students needing additional social-emotional help. Students learn about themselves, staying healthy, moving more, and growing/eating healthy foods. The school psychologist helps support social-emotional needs for students, whether it is individually or in a small group setting. The school psychologist also works closely with

the Positive Behavior Interventions and Supports (PBIS) team to provide students with multi-tiered support.

- The school's full-time nurse is a resource for health education and providing teachers with student health information. SVS's nurse also supports students' needs related to COVID protocols and immunizations.
- In addition to working directly with students, both the nurse and school psychologist are integral members of the school student study team and participate in Individualized Educational/Learning Plan meetings with staff and families and 504 meetings.
- The school uses *Character Counts*, restorative justice, PBIS, social-emotional groups, peer check-ins, adult check-ins, and buddy systems for each class to promote good mental health and a positive, healthy school climate. As a K-8 school, SVS staff treat all students as one team. Teachers and support staff take responsibility for the health and well-being of all students. Working as a team and using tiered systems of support, all site members build relationships with the students to create and foster a positive school climate and environment.

Pillar III: Provide Effective Environmental and Sustainability Education

Element IIIA: Interdisciplinary Learning

- SVS is part of the No Excuses Network of Schools. The school utilizes six pillars to support the learning of skills, positive attitudes, and civic responsibility of students. The pillars are: Promoting a Culture of Universal Achievement, Staff Collaboration, Focus on Standards Alignment, Developing and Revising an Assessment Plan, Continual Data Analysis, and Positive/Targeted Interventions. Staff tie the six pillars into everything at the school including garden activities. For example, the Culture for Universal Achievement is a fundamental value when developing the agriscience program and environmental literacy instruction.
- Since the inception of this program and alignment with the state's science standards, the students' California State Testing scores in 5th grade have risen from 63.6% to 84.4% proficient or advanced. This figure represents a 20% increase over four years. In addition, teachers report that students are more focused and engaged while working outside and getting "hands-on" experiences that provide a powerful connection between the real world and academics.
- SVS integrates the California Next Generation Science Standards (CA-NGSS) through an innovative application of California Education and the Environment Initiative (EEI) agriscience learning activities. Students learn science standards with hands-on project-based learning opportunities utilizing the school's two-acre farm laboratory. The farm laboratory features three outdoor classroom areas; an outdoor kitchen classroom; field crops, 104 container gardens of vegetables, berries, herbs, flowers, and 27 fruit trees; a small vineyard with different varieties of table grapes; a permaculture guild area (coordinated system of growing within a whole gardening ecosystem); a California native garden section; and seed and cuttings production areas to build a sustainable program.
- The SVS agriscience program also has an indoor hydroponic tower center and an Innovation Lab used for cooking and science experiments. The school added livestock to the farm laboratory by securing eight egg-producing chickens. The goal of the agriscience program, in addition to teaching and reinforcing state science standards, is

to teach K-8 students where food originates, how it is grown and produced, and the vital role that agriculture plays in the environment and humans' everyday lives.

- For many SVS students, the farm laboratory is their first exposure to production agriculture. As students progress through each grade level, their expertise and comfort level in agriscience grow. Students are actively engaged in designing the layout of the gardens and conducting various experiments raising and harvesting flowers, fruits, and vegetables.
- Students at SVS work to develop an understanding of environmental concepts by participating in lessons and activities focused on how the health of communities and societies depend on the health of the natural systems that provide essential goods and ecological services. While the level of sophistication in these concepts increases at higher grades, all students:
 - Learn about how human societies influence the long-term functioning of soil and food production.
 - Identify and analyze how goods produced by natural systems are essential to human life and the functioning of economies and cultures.
 - Explore the concept that the quality, quantity, and reliability of goods and ecosystem services provided by natural systems are directly affected by the health of those systems through lessons on commerce, life cycles, and food chains.
 - Conduct experiments involving shared resources or abundant resources and how living things thrive/grow in both.
 - Learn about methods used to extract, harvest, transport, and consume natural resources that influence the geographic extent, composition, biological diversity, and viability of natural systems through health and nutrition lessons.
 - Study historical lessons about how changes to local, regional, national, and global agricultural practices impact the process.
 - Examine the historical evolution of their area from agriculturally diverse to primarily reliant on the grape harvest.
 - Explore how natural systems proceed through cycles that humans depend upon, benefit from, and can alter.
 - Learn from failed and successful harvests in the agriscience garden program. By researching, planning, planting, and maintaining the school garden, students see the very apparent and direct link between how human practices can alter the cycles and processes that operate within natural systems.
 - Observe how carbon sequestration through planting and soil protection is the exchange of matter between natural systems and human societies.
 - Engage in water studies and plant survival exploration through comparative growing experiments, illustrating how the byproducts of human activity are not readily prevented from entering natural systems and may be beneficial, neutral, or detrimental in effect.
 - Take part in hands-on growing experiments in the school garden as well as the hydroponic growing towers located in the school Innovation Lab. The experiments build an understanding of the capacity of natural systems to adjust to human-caused alterations depending on the nature of the system and the scope, scale, and duration of the activity, and the nature of its byproducts.

- Participate in hands-on lessons focusing on the Suisun Marsh, Lake Berryessa, and local farms, allowing all grade levels to study the long-term functioning and health of terrestrial, freshwater, coastal, and marine ecosystems and how relationships with human societies influence the ecosystems.
 - Observe agricultural commerce as it exists in the surrounding grape-growing region, through on-site experiences and visiting farmers in the local community.
- The school's drop-in Environmental and Sustainability Club offers students opportunities to volunteer in school improvement and service projects. For example, students in the club harvest produce from the garden to be given away to community members at the school's produce stand. Often the produce cart carrying freshly picked fruits and vegetables will not make it across the campus to the produce stand because students rush to be the first to grab fresh produce before it's all gone.
- SVS's teacher-led Garden Club members meet during and after school to work on garden-related activities. Each month the group does campus harvesting, processing, and preparing produce from the school garden, overhauling raised beds, planting new crops, and using equipment in the garden.
- All SVS students go on field trips to study environmental education at outdoor programs, colleges, lakes, parks, ranches, and farms. Some of the past field trips include the following:
 - Kindergarten students visit Connolly Ranch. The ranch provides an experience to foster a deep respect for the environment, a strong understanding of farming and sustainable agriculture, and a love for the natural world.
 - First-grade students take a trip to Loma Vista Farm's 5-acre outdoor classroom. The trip provides hands-on educational activities involving plants and animals for children of all ages and abilities. Teachers take students on this trip to increase their knowledge of nature and nutrition while enhancing academic learning, eco-literacy, and psychosocial development.
 - Second-grade students visit Shooting Star Farms. While visiting the organic farm, students learn about organic farming, beneficial insects, and ways to prevent pests without pesticides. All students have the opportunity to release beneficial insects at the farm and study their behavior.
 - Third-grade students take a guided tour of the Solano Land Trust Suisun Marsh. On the tour, students learn about the ecological benefits of wetlands and wetland preservation, focusing on carbon sequestration, animal habitat, and marsh plant environment.
 - Fourth-grade students visit Il Fiorello Olive Oil Farm to learn about growing, harvesting, and pressing olives, as well as participate in an olive oil tasting and cooking experience.
 - Fifth-grade students take a Lake Berryessa Water Conservation Tour in both the fall and spring. Students participate in a guided tour of the Lake Berryessa watershed and dam, and learn about the water cycle, water preservation, agricultural water resources (used in the SVS garden), the importance of water storage, and habitat preservation.
 - Sixth-grade students visit Lanza Vineyards/Wooden Valley Winery during the fall harvest and crush. They are introduced to all aspects of grape growing, harvesting, and preservation, including the chemistry behind wine-making and storage.

- Seventh-grade students visit the University of California, Davis' Agricultural Experience to learn about careers in agriculture, the role of cattle in agriculture, and the benefits of an advanced university degree in Agriculture. They also extract DNA from strawberries in a hands-on experiment.
- Eighth-grade students visit Solano Community College to see agricultural applications at the post-secondary level. On the trip, students interact with horticulturists, explore the campus greenhouses and experimental growing areas, and take a seedling to plant in the school garden or at their home.

Element IIIB: STEM Content, Knowledge, and Skills

- SVS leads Science, Technology, Engineering, Art, and Math (STEAM) education through project-based learning activities such as solar pizza ovens, alternative soil amendments (like bananas), decomposition, vermiculture, designing greenhouse structures/irrigation options for raised beds, testing soil acidity using red cabbage reactive agents, and rebuilding tools to maximize use/efficiency.
- Students use their STEAM skills to design planting spaces, engineer materials for the garden, collect data, and map outcomes. Students across all grade levels use the data and experience from projects to make informed decisions for future crop success.
- Students learn about and utilize green technologies such as solar and passive water reclamation systems to power the irrigation systems and bring water to irrigated areas.
- All SVS students have an active role in the success of the school's garden. Through multi-disciplinary "hands-on" projects, each grade level engages in age-specific projects to support the overall goal of a successful harvest. Some grade-level projects include:
 - Middle school students test soil acidity levels using student-made reactive agents. Once the acidity levels are determined, small groups assigned to particular boxes develop a planting plan. Students research, plan, and plant selections most suited for the soil conditions. At the same time, the elementary groups support healthy soil preservation through composting and identifying decomposing matter, which they can add to the raised beds.
 - Fourth and fifth-grade students take care of vermiculture development, strategies for erosion control, and maintaining healthy amended soils in the garden's raised beds and row crop areas.
 - Sixth graders designed and currently maintain a rain harvester system that functions with solar and wind energy. As part of the construction, the students conducted experiments to measure rainfall output from the school buildings to determine which structure would collect the most rainwater.
 - On the school's farm, seventh-grade students designed and built raised beds. In the initial build, students researched different garden box designs to maximize vegetable production. Then, the students worked with a team of Genentech employees on installation. Recently, the seventh and eighth-grade students re-engineered and re-built the boxes in a build that included retrofitting the irrigation systems to maximize targeted irrigation practices while minimizing waste through a drip irrigation system.
- Ag-tech career pathways are introduced and explored through the SVS agriscience program. Students have the opportunity to learn about the varied career pathways available in agriculture through environmental science and technology presentations at

the University of California, Davis, collaborative work with local engineers to create the school's water reclamation system, and informative tours/lessons at local farms.

Element IIIC: Civic Knowledge and Skills

- Most of the civic engagement opportunities offered at SVS are around food insecurity, on-campus service, and community outreach. For example, each summer, the school's garden becomes a community gathering place and food source. The school's student council also hosts food drives and educational programs throughout the year to promote an awareness of food insecurity in the city and surrounding areas.
- The school hosts quarterly garden clean-up days open to all students, parents, alumni, and community members. Participants work together to service the large, two-acre garden providing support and maintenance that they cannot complete during the school day.
- Each summer, the school's garden becomes a community gathering place and food source. The school's agriscience teacher, administration, and volunteers host pop-up produce stands featuring produce harvested from their garden. Students, families, and local community members are invited to gather fresh produce at no cost. Any additional items from the harvest are then taken to the district office for distribution to other community members.
- The school garden also serves as a meeting space and sanctioned outdoor haven for students who reside in high-density housing complexes and may not otherwise have access to open outdoor spaces.
- SVS also has an active Student Council comprised of upper-grade representatives. The council is integral to the culture and climate of the school. They organize and lead spirit weeks, school events open to all students, and food/clothing drives for local charities. For example, the student council leads the school in an annual campaign supporting active-duty military personnel with letter-writing and food or personal hygiene supplies drive, collaborating with the non-profit Blue Star Moms.
- SVS students act as agriscience ambassadors for their families and the local community. Many students have taken the initiative to plan, plant, and grow home gardens, raise chickens, taste new food, and prepare healthy meals modeled on agriscience.
- Students who have graduated from the school regularly return to lead current students in service. The school welcomes alumni and is the recipient of many service-related projects such as trellises built over garden boxes, benches throughout the school, a large composting complex, raised planters, garden classroom overhaul, and areas carved out for quiet reflection in the garden classrooms such as a reading fort constructed from upcycled bike wheels.
- All grade-level groups participate in buddy experiences in the garden. Older students develop activities and experiences to guide their younger "buddies" to develop a deeper understanding and exposure to the many CA-NGSS concepts supported through the garden and outdoor learning spaces.
- SVS teaches an array of subjects in context, engaging the broader community and developing civic skills for students. Each grade level's unique agriscience connection/partnership with the local community include:
 - Kindergarten raises and supports chickens in a coop complex located on the campus.

- First grade explores how food is grown in the school garden and enjoys hands-on experiences at local farms and produce stands.
- Second-grade classes partner with a local organic farm and learn about organic farming methods, including beneficial insects. For example, ladybugs and praying mantises are raised and released by students in the school garden each spring.
- Third-grade students study, research, and explore the nearby Suisun Marsh and wetlands through a partnership with Solano Land Trust.
- Fourth-grade classes focus on crop management and production partnering with a local olive farm. As a result, the students learn the entire process of making olive oil.
- Fifth grade conducts a deep dive into composting and learning about the compost cycle. Students explore waste deferral options through a partnership with the local landfill and lessons from UC Santa Cruz.
- Sixth-grade classes partner with Lanza Vineyards and study the entire process of grape growing, harvesting, and the chemistry involved in wine-making.
- Seventh and eighth-grade students partner with UC Davis and learn about the genetics that support crop development and increase crop production. Students visit the university to learn how to extract and analyze DNA from local crops.
- The school's farm is a hub for high school programs and promotes outdoor learning. The school also hosts opportunities for outside agencies to support the site and provide a way to use the buildings, grounds, and neighborhood to teach place-based environmental education and foster hands-on local ecological literacy.
- The agriscience teacher partners with outside agencies such as the local farm bureau and land trust agencies to provide immersive virtual experiences. The pandemic shutdown has expanded SVS students' access to events such as California Farm Day. Historically, third-grade students have been the only grade level to attend this field trip. Due to the program switching to a virtual format, all grade levels can attend and learn about the major crops in California and the financial impact agriculture has on the state.
- SVS also works each year with Genentech, a local biotechnology company that provides over 50 volunteers to support the agriscience program by working in the garden with students. Recent projects include the following: a trellis system for the raised beds, a new compost stall complex, benches for student use, and an update and overhaul of one of the outdoor learning spaces.
- The school has partnered on several service projects with local organizations such as SVS 4-H, Westwind 4-H, Boy Scouts of America (various troops), Armijo High School, Rodriguez High School, and Fairfield High School leadership organizations.
- SVS has benefitted from the support of local farmers such as Lanza Vineyards, farm stands like Larry's Produce, and agencies such as Slow Foods Solano and Sustainable Solano. SVS agriscience program has also received small grants such as the Taste and Teach Grant from the Foundation for Agriculture in the Classroom and development funding from Sustainable Solano.