

City of Cupertino green@school Handbook

A step-by-step guide to enrich K-12 learning by empowering students as campus sustainability leaders to achieve school Green Business Certification.







green@school Snapshot

Welcome and thank you for your interest in green@school for your class, campus, or district!

"Education is our passport to the future, for tomorrow belongs to the people who prepare for it today." – Malcom X

green@school was created to empower students as environmental change agents within their school campuses, at home and throughout their community. The City is honored that you've taken a great first step in advancing your school's environmental leadership by accessing this Handbook, designed to support students, teachers, and administrators in your efforts to improve the health and wellness in your school through hands-on learning.

First, we acknowledge that educators and administrators face increasing demands, including a myriad of competing curricular and achievement requirements, ever-changing educational standards and assessment tools, evolving teaching techniques and technology "solutions", and beyond. For these reasons, green@school (g@s) is designed to be a simple "plug-and-play" supplement to your already robust science, humanities, or math class or can even be sampled "cafeteria-style," as time permits and as interest peaks, within your club or after-school program. The resources we've developed are based upon our learnings in running g@s in two Cupertino middle schools and are organized the following way to enable your successful adoption and integration into the class curriculum or club agenda you've already carefully constructed:

Handbook

g@s orienteering guide: provides background information on the tools developed to help you embed sustainability into your class, club or afterschool-program.

Units

g@s bedrock: shares resource-specific lessons, campaigns, and activities to bolster student learning and shepherd your school through the g@s checklist.

Checklist

g@s roadmap to reduce utility use, cut costs, and improve campus-wide health and wellness. Also a guide to school site program certification and recognition for your environmental leadership.

For ease of access, each resource is available

on the City's website, or can be requested in printed copy. In whatever capacity you envision utilizing our suite of support tools, know that your efforts are contributing to greater campus and community good. Paired with your campus' current activities to reduce environmental impacts and cost, g@s can help improve the health and wellness of schools, ensuring that all students can learn in an environment conducive to achieving their full potential, free of the health disparities that can aggregate achievement gaps (U.S. Department of Energy, 2014). Reinforcing your existing curriculum with g@s hands-on environmental education approaches, which cross many disciplines and incorporates STEM, can help students' hone new critical thinking and civic leadership skills, as we'll further detail. Lastly, as Malcom X's quote above suggests, g@s provides a "passport to the future" by introducing emerging sustainability careers and bolstering learning through professional skill building and green workforce development. Just flip through our units to gain a backstage pass to achieving these ends.

Thank you for prioritizing your limited time to thumb through our handbook, and a hopeful thanks in advance for your leadership to bring green@school to your campus to prepare students with the skills required to enrich the world they will inherit.

Acknowledgements

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What's green@school?

green@school Toolkit =

A green@school Handbook

A Sustainability and Climate Change Primer

6 Units and Certification Checklists

Background

green@school is a pilot program created by the City of Cupertino and funded through a Silicon Valley Energy Watch grant. This 2013-2014 pilot program launched in partnership with two Cupertino Middle Schools: John F. Kennedy and Warren E. Hyde. The City's experience during its pilot year inspired the creation of this green@school toolkit, which includes (1) a Handbook (that you're reading now ©), (2) a primer that provides background knowledge regarding climate change and sustainability and (3) six subsequent resource-focused

units to support school site "green" certification, with the hope that our pilot program learnings and resources will expand beyond Cupertino to support other schools and their community's environmental endeavors. To achieve this objective the Handbook seeks to answer the following questions for the reader, which serves as the document's main navigation to simplify access to the information of interest to you:

what's green@school?

what are the steps?

ow do i ge started? where do i learn more?

The green@school program was founded to amplify Cupertino schools' existing innovative energy (i.e., large parking lot solar carport installations, energy management programs) and water (i.e., native gardens, composting programs, water bottle refilling stations) conservation efforts. Our program is modeled to meet this goal by offering a pathway for schools to showcase their distinct environmental achievements using one program suite to ensure that associated utility cost savings and public health gains can be realized across their campuses and also at the District level! The program has five main aims:

- 1. **Reduce** the environmental footprint and operating costs from participating schools' waste, wastewater, water, energy, and transportation activities.
- 2. Boost the health and wellness of students and staff by addressing indoor air quality and thermal comfort, and by encouraging healthy choices and alternative transportation.
- 3. Enhance educational offerings and classroom experiences by sharing additional hands-on learning opportunities pertaining to local and global environmental issues.

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what's green@school?

what are the steps?

how do i get started? where do i learn more?







- 4. Reinforce STEM curriculum, build civic responsibility, and expose students to new careers.
- 5. Achieve the Bay Area Green Business Certification and gain recognition for your school!

These aims are achieved through a defined framework that shepherds students and staff through the <u>Bay Area Green Business Program Certification process</u>. (http://www.greenbiz.ca.gov/). The Bay Area Green Business Program, founded by the <u>Association of Bay Area Governments</u> (ABAG) (http://www.abag.org/), assists and recognizes organizations that operate in an environmentally friendly manner. green@school follows the framework of both this program and Cupertino's own award-winning GreenBiz Cupertino initiative, which offers free consulting capacity to businesses working to improve their operational

Bay Area Green
Business Program

GreenBiz
Cupertino

green@school

sustainability by assisting them through the Green Business Program Certification process (learn more: http://www.cupertino.org/greenbiz).

Like businesses participating in GreenBiz, or schools already participating in the <u>Collaborative</u> <u>for High Performance Schools</u> (CHPS) (<u>www.chps.net</u>) or Leadership in Energy and Environmental Design (LEED) (<u>www.usgbc.org/leed</u>) certification programs, schools achieve program certification by implementing a series of defined environmental actions, encompassed within our checklist, targeting specific resource and engagement gains across a school site. To easily coach schools to achieve these resource gains, green@school offers the following six units to instructors targeting campus efficiencies in each category:



Each unit contains relevant background information, lessons, proposed activities and campaigns, and the certification checklist relevant to the unit's topic (i.e., contained within the Materials Management unit is the Materials Management certification checklist) to support school site certification and teacher and student involvement in this effort. The units are designed to provide students with the tools they will need to assess their school's environmental efforts and map a list of action items to help their school achieve all certification requirements. The pathway to accomplish this is further outlined in the steps below.

The Process

So how do I get there? Follow these steps that explain how the program operates!

STEP 1: LEARN. The program jumpstarts with a primer on climate change and sustainability to introduce students to the overarching theme of the green@school program. Students are also

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introduced to the tools the g@s program offers that include the units, the certification checklists and the g@s process so they can be ready to investigate, advocate, and inspire!

STEP 2: RESEARCH. Students begin investigating their schools to uncover the data and resources they will need to begin their campus-wide assessment.

STEP 3: ASSESS. Students act as environmental detectives on campus and conduct a comprehensive baseline assessment of the energy use, water use, resource recovery, and other environmental practices at their school.

STEP 4: PLAN. Students develop a customized action plan for their school of remaining sustainability measures to implement to achieve program certification.

STEP 5: ACT. Students take action by campaigning fellow students and staff, proposing changes to their school and district, and implementing measures!

STEP 6: VERIFY. The County verifies assessment findings and local regulatory compliance.

STEP 7: CERTIFY. The school receives Bay Area Green Business Program certification, students and staff are recognized for their remarkable efforts, and everyone on campus enjoys a healthier and more comfortable environment!

Benefits

Becoming certified as a Bay Area Green Business has many benefits for schools that choose to participate. Certification through the green@school program can lower utility bills, provide access to free services and supplies, lead to healthier



work and learning environments, and ensure regulatory compliance. Schools can apply for various grants to earn rewards to implement projects at their schools. Additionally, participating schools will be recognized as environmental leaders in their community. By involving students in the certification process, green@school will strengthen the bond between students and their school administration as well as encourage behavioral change at home.







Beyond the end goal of certification, green@school enhances science and humanities education and builds students into civic leaders and stewards of our shared local environment.

green@school Program:

green@school Handbook

Sustainability and Climate Change Primer

Units and Certification
Checklists

Tools:

As the graphic to the left outlines, there are many tools available through the green@school program to provide support to students, participating schools and their communities in becoming active participants in this program. We'll detail each below:

> What's the Handbook?

The handbook is your owner's manual, outlining how the green@school program operates. This includes the steps for students and supporting instructors/administrators

alike to achieve program certification, resources and tools to advance program steps, certification checklist navigation tips, and more. The g@s handbook details the Bay Area Green Business Program's process and shares how to get started down the certification path! This handbook also includes an appendix with various templates (e.g., advocacy campaign, grant application, memos) to ease required activities included in each of the six units.

> What's the Sustainability and Climate Change Primer?

The primer provides background information of the underlying themes that inspired the green@school program: sustainability and the effects of climate change on our earth and locality. The primer provides basic information about these themes and includes activities that cover a cross section of disciplines such as laws, science, ethics, economics and society to help students relate climate change and sustainability into their daily lives, across relevant courses, and within efforts they will spearhead at their school through g@s program leadership.







What's a unit?

Each unit includes: Certification Checklist Student Learning Outcomes Lesson Plan Activities Campaigns Materials Needed

green@school developed six units that represent each category of the Bay Area Green Business Program's certification checklist: Materials Management, Energy Conservation, Water, Pollution Prevention, Stormwater Management and Health and Wellness. As you can see left, each unit offers a "one-stop shop" relevant to students and instructors approaching the certification checklist for the first time or returning again with a new class. Specifically, each unit includes target student learning outcomes and a lesson plan equipped with various activities, including both campaigns and a list of materials students will need to complete the unit's activities. To scaffold student learning outcomes, each unit first offers up subject matter background to appropriately build student and instructor knowledge and comfort each action area of the Bay

Area Green Business Program and its associated section of the checklist.

The units guide students through a series of online activities, hands-on activities, audits, worksheets, and resources. The target of each unit is to provide students with a pathway to source areas of environmental victories and challenges that currently exist within their school site campus. The student learning outcomes and lessons provided in each unit are designed to empowering them with clear tools to make the changes needed to save resources, cut costs and create a healthier learning environment. The table below provides an overview of each g@s unit focused on the following resource areas, each supplanted from the Bay Area Green Business Checklist to ensure your school can easily be certified through this statewide program: materials management (unit 1), energy efficiency and conservation (unit 2), water conservation (unit 3), pollution prevention (unit 4), storm water management (unit 5), and health and wellness (unit 6 – added from Cupertino's own <u>GreenBiz Program</u>).







Unit	Student Learning Outcomes	Lessons
	1. Become educated in the concept of materials	LESSON 1: THE BASICS AND POLICIES
	management, how landfill waste contributes to	OF MATERIALS MANAGEMENT
	climate change, and how waste infrastructure	LESSON 2: WHAT HAPPENS TO "STUFF"
	affects diversion rates	WE THROW AWAY?
Unit 1:	2. Observe and discover peer and staff sorting	
Materials	habits to develop an effective waste diversion	LESSON 3: GENERAL RULES FOR
Management	campaign	MANAGING MATERIALS AT SCHOOL
	3. Identify opportunities for purchasing products	OR HOME
	with recycled content	LESSON 4: PURCHASING
	4. Advise peers and staff on good sorting habits	Environmentally Preferable
	that include composting, recycling, and other	PRODUCTS
	ways to divert materials from landfill	LESSON 5: HOW TO TAKE INITIATIVE
	5. Share materials management practices with	AND INFLUENCE YOUR PEERS, STAFF,
	their family and community	AND COMMUNITY
	1. Articulate at least three ways their school's	LESSON 1: ENERGY 101: ILLUMINATING
	built environment influences energy use	THE BASICS
	2. Measure energy use of appliances and identify	
Unit 2:	at least one energy-efficient technology for	Lesson 2: Design It Bright! Energy
Energy	lighting, electronics and appliances	EFFICIENT BUILDING DESIGN
Efficiency	3. State the difference between energy efficiency	
and	and energy conservation	LESSON 3: GROWING GREENER:
Conservation	4. Communicate three ways they can conserve	ENERGY CONSERVATION AND
	energy at home and at schoolDesign a behavioral change campaign to	EFFICIENCY OPPORTUNITIES
	engage and motivate peers, teachers, and	LESSON 4: GETTING GREEN DONE:
	administrators in their efforts to conserve	INFLUENCE PEERS, STAFF, FAMILY,
	energy on campus	COMMUNITY
	6. Implement campus energy saving initiatives	
	7. Name three career choices that relate to energy	
	efficiency and/or conservation	
	1. Articulate at least three ways their school's	LESSON 1: WATER DELIVERY
TI NO	built environment influences water use 2. Measure water use from faucets and fixtures	LESSON 2: WATER GOES ROUND AND
Unit 3:	2. Measure water use from faucets and fixtures and identify three water-efficient technologies	ROUND
Water	to reduce water use on campus	ROUND
Conservation	3. State the difference between water efficiency	LESSON 3: WATER EFFICIENCY AND
	and water conservation	CONSERVATION OPPORTUNITIES
	4. Communicate and pledge three ways to	
	conserve water and/or use it more efficiently at	LESSON 4: WATER INVENTORY
	home and at school	
	5. Name three career choices that relate to water	LESSON 5: WASTING WATER FOR
	efficiency and/or conservation	Nothing

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Unit		Student Learning Outcomes	Lessons
	1.	Quickly learn the vocabulary around	LESSON 1: THE BASICS OF POLLUTION
		pollution, pollutants, and prevention,	PREVENTION
Unit 4:		regulatory definitions, and alarming facts	
Pollution		about pollution in the United States	LESSON 2: BEHIND THE SCENES AT
Prevention	2.	Investigate the products at school, in the	YOUR SCHOOL AND HOME
		classroom, and at home to determine the kinds	Luccon 2. Borrymen Ave Ave Magee
		of pollutants that students, peers, teachers, and communities are exposed to	LESSON 3: POLLUTED AIR AND WATER
	3.		LESSON 4: URBAN PLANNING AND
	J.	Particulate Matter (PM) and what can be done	POLLUTION
		to minimize it	TOLECTION
	4.		LESSON 5: PROPOSING A NEW POLICY
		protect the health and the future health of the	TO THE SCHOOL AND DISTRICT
		school	
	1.	Identify storm drains on and around campus	LESSON 1: WHAT'S THE BIG DEAL
	2.	Articulate the concept of urban runoff and its	ABOUT A LITTLE RAIN WATER?
Unit 5:		impact on the bay	
Storm Water	3.	Name one or more regulatory policies related	LESSON 2: WHAT'S THE DIFFERENCE?
Management		to storm water management	
	4.	Provide solutions to keeping storm drains free	LESSON 3: GETTING TECHNICAL
		of debris, sediment, polluted runoff, and litter	The state of the Dec
	_	on campus	LESSON 4: WHAT CAN YOU DO?
	1.	Identify how their school's infrastructure and equipment affects their health such as indoor	LESSON 1: HEALTH & WELLNESS 101: WHY SHOULD I CARE ABOUT HEALTH,
Unit 6:		air quality, water quality, classroom	BALANCE, AND SUSTAINABILITY?
Health and		temperature, ventilation systems, and natural	DALANCE, AND OCCITAINABLEITT.
Wellness		light	LESSON 2: DESIGN IT BRIGHT: FOOD
vv eiiness	2.	Articulate how their school acquires food and	As Fuel
		how this food impacts their health and the	LESSON 3: DESIGN IT BRIGHT:
		environment	CONNECT WITH THE AIR YOU
	3.	Characterize how their peers and staff eat and	BREATHE
		stay active	DREATTE
	4.	Connect with the resources (air, water, food,	LESSON 4: DESIGN IT BRIGHT: 80%
		and sunlight) needed to sustain their lives	WATER - OUR PLANET, OUR BODIES
	5.	Offer new ways students and staff can find	Luggov F. Dugyov In Process Con
		alternative transportation options and	LESSON 5: DESIGN IT BRIGHT: SUPER STELLAR SOLAR
		articulate why it is so important for student	STELLAR SULAR
		and staff health to walk and bike to campus each day	LESSON 6: GROWING GREENER: BIKE,
	6.	Demonstrate leadership on campus and	WALK, AND WIN
	0.	implement initiatives/campaigns to encourage	
		healthy living	Lesson 7: Getting Green Done:
			INFLUENCE PEERS, STAFF, FAMILY,
			COMMUNITY







What's the certification checklist?

The certification checklists are divided and included in each of the six g@s units, representing a different category of the Bay Area Green Business Program (http://www.greenbiz.ca.gov). The checklists serve as the school's roadmap to sustainability, identifying actions the campus can implement to save resources and engage all campus stakeholders in the process. The checklist is used as a strategic tool to coach schools in achieving environmental and financial gains. The checklists offer a starting point to spark a conversation with students and administrators to define campus-wide environmental priorities and projects. With the checklist, the prospect of determining a clear and targeted environmental agenda for your school with student and staff support can be easily achieved. The checklists allow organizations and schools alike to focus on certification in a way that is engaging, educational, and achievable, as schools throughout the state have already done (find a listing here: http://www.greenbiz.ca.gov/ShopGreen.html)!

What are the steps?

Now that you've been briefed on the program's background let's learn the action plan to get your school certified! Outlined below are the recommended steps to shepherd your school through the process and ensure certification and recognition through this statewide program.

STEP 1: LEARN

what's green@school what are the steps?

how do i get started? where do i learn more?

Just like building classroom content before the laboratory exercises begin, before diving into the action students must bolster their hands-on learning with background information provided in both the primer (explained above) and the introductory

"Tell me and I forget. Teach me and I remember. Involve me and I learn" - Benjamin Franklin

sections of each unit. It is important that students understand how the certification process works and discover each unit's environmental intent so that they are poised and ready to investigate, advocate, and inspire change across their campus.

To achieve a green@school certification through the Bay Area Green Business Program, your campus must implement or have in place a certain number of "required" practices (i.e., recycling bins and collection, recycled content office paper) and "recommended" measures (i.e., reusable dishware, robust alternative commute programs) to demonstrate your school site sustainability. In this way, the green@school program models itself after more commonly known green certification programs like the U.S. Green Building Council's <u>Leadership in Energy and Environmental Design</u> (LEED)(http://www.usgbc.org/leed) certification for

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buildings. Similar to LEED, g@s provides a list of measures (described below) that need to be implemented (e.g., recycling all eligible materials on campus, purchasing recycled content copy paper) and additional measures where the implementer has the option to pick and choose actions to pursue based upon their existing operations, funding availability, staff capacity, organizational priorities, technology, etc. (e.g., buying recycled content paper towels or recycled content file folders).

➤ What's a measure? → Actionable Steps to Grow Greener Schools!

Measures, which can also be considered direct actions or "best practices" to identify and/or advance environmental initiatives on your campus appear on each certification checklist (see pg. 13 example). These measures help students understand what kind of information they will need to gather in order to complete the baseline assessment for their school (explained in step 3 – pg. 12 below). Measures are categorized according to the type of change students are trying to make on campus to allow them to more easily connect to the resources needed to mobilize their efforts, including the following:

- Infrastructure measures, actions or practices address the school's building design and operations. To assess whether their school has implemented an infrastructure measure, students must answer the question "What's already there?" Students will become campus detectives, investigating their campus firsthand by examining lighting fixtures, bathroom faucet flow rates, or the number of recycling bins on campus. Units might contain a lighting or bathroom audit or activity to help students uncover this data. Some of the more abstract measures within the checklist may require a brief conversation with a custodian, school operations expert, or district representative responsible for that topic such as an energy manager or operations manager.
- Procurement measures address items purchased by the school or district. To assess whether
 their school has implemented a procurement measure, students must answer the question
 "What do we buy?" To answer this, students will employ both their research and/or interview
 skills to determine the efficiency of the appliances and electronics purchased for the school,
 or chemical makeup of cleaning supplies, percentage of post-consumer recycled paper
 products, and beyond.
- **Behavior** measures refer to how students and staff use (and waste!) resources. To assess whether their school has implemented a behavior measure, students must answer the question "What do we do?" by observing and interviewing students and staff. During this assessment, students will have the opportunity to design their own experiments and surveys to find out how resources are consumed and conserved on their school campus. For example, students can issue a survey that asks students what kind of food they would prefer at the cafeteria or whether or not they recycle or compost at home.
- **Campaign** measures provide the opportunity for students to make a change and involve others in doing so on their campus. These measures are an addition to the green@school







program not required by the Bay Area Green Business program to round out the environmental experience for participating students. For these measures, students have the power to design their own campaigns and initiatives that encourage or incentivize students and staff to participate in green@school efforts. Students must answer the question "What can we do?" to identify new ways to implement changes on their campuses. For example, students can campaign to build a school garden or promote active transportation (e.g., biking and walking) to reduce emissions campus-wide.

STEP 2: RESEARCH

Empowered with background knowledge on these new unit-based subjects, students are now ready to research and investigate their school grounds to prepare for their assessment, explained in step 3 (see pg. 12). In order to conduct an effective baseline assessment, to learn what environmental actions are already in place on campus, students will need to access various spaces on campus, contact various staff on campus and possibly at the district, and take inventories of equipment, supplies, activities on campus so to become experts on their school grounds and operations. This preliminary research step will help students complete the certification checklists, as they will know who to ask or where to go to find the answer.

Accessing Sites on Campus

To maximize the hands-on learning experience targeted by green@school in its design, students may need to access specific locations on campus. For example, completing the energy assessment activities may require access to classrooms and offices with lighting and appliances. Since some of the locations may be occupied, you may need to obtain permissions to walk through the area to conduct an assessment. You may need to access:

- Classrooms (including portables)
- Library
- Computer lab
- Kitchen (including staff kitchen or areas with refrigerators)
- Administration Office
- Locker rooms
- Bathrooms (girls/boys, staff)
- Cafeteria
- Staff room
- Janitorial closet/other closets with lighting/appliances
- Areas with outdoor lighting
- Fields
- Parking lots
- Landscaped areas







Campus Contacts

Building partnerships with professionals (e.g., school faculty, staff and administration) can ensure the broader support for the more challenging task of achieving school site certification as well as the guidance to get your program up and running. Here are some staff members that will help prepare for the green@school program and will become experts in the field to help answer technical questions about the way each school operates:

- Custodial Staff
- Office Staff
- Teachers
- School Electrician
- Lunch Staff
- District Energy Manager

- District Operations Manager
- District Purchasing Manager
- District Nutrition Specialist
- District Landscape Architect
- District Maintenance Manager

Many of the green@school activities may also require permission or assistance from certain staff members from your school or district (e.g., counting lighting in the library, evaluating refrigeration equipment in the faculty lounge ③). Interacting with staff at the school and district level presents an opportunity for students to practice their formal communication skills. When addressing these staff members, students should use appropriate interviewing skills and treat the staff with respect (Thank you cards are encouraged!). A memo template is provided on the last page of this handbook to support student outreach (see pg. 29). These staff members are the resident experts on campus who can provide a wealth of information on all the important activities that affect sustainability at your school. Students are encouraged to ask questions and learn from these experts, and best of all, champion their achievements!

Campus Demographics & Operations

During the assessments, students find it beneficial have the following information available about their school to properly acquire data that is described in each unit:

- Number of students
- Number of teachers
- Number of administrators
- Hours of operation
- Number of instructional days in a year
- Number of classrooms
- Names of other spaces–library, tech lab, locker room, gym, staff room, kitchen, office
- Number of bathrooms
- Number of water fountains
- Map of the school and the location of various buildings, portables, janitor closet, staff closets, HVAC systems, electrical closets, etc.

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STEP 3: ASSESS

Equipped with background information on their school's activities, maps of relevant areas to assess, and contacts to learn more should they identify any questions, students are now ready to conduct a baseline assessment of their school's environmental practices. The way to complete the assessment step is simple – each unit provides a step-by-step checklist with resource-specific measures for students to evaluate campus operations and activities. Students can simply take this tool with them during the evaluation to complete, or develop their own format for recording information and taking notes. This is the most engaging and exciting part of green@schools, when students are activated as investigators to learn what's currently happening and what more can be done on campus to support the environment.

green@school's partners also offer a wealth of FREE assessment services available for your school to take advantage of and also bring in the subject matter experts to help complete measures within the g@s checklist.

- Recology provides waste assessment services for your school to identify tactics to divert
 waste from the landfill, as well as get the support to start recycling and compost programs!
 Learn more at: www.recology.com
- **Santa Clara Valley Water District** provides free water conservation equipment, such as low-flow faucet aerators, low-flow shower heads, low-flow spray valves, water conservation signage, and more! Check out the catalog of free conservation equipment at the District's webpage: www.valleywater.org.
- **PG&E** provides energy audits for your school to identify lighting upgrade opportunities as well as kitchen equipment upgrade opportunities. PG&E will also help your school access grants and rebates to initiate change and conservation on campus. Learn more at: www.pge.com
- Silicon Valley Energy Watch –provides your school with energy efficiency information and services. SVEW will help you apply for rebates, check out a D.I.Y. toolkit (see pg. 18) and more to help complete the energy portion of the checklist! Learn more at: www.pge.com/energywatch

Checklist

Provided below are the "general" checklist measures required to participate in green@school. These measures ensure your school's commitment to the program, sharing lessons learned in your process with other members of the community, and spreading the word about your victories as wide as possible. Though this is provided here as an example of the way checklists are formatted to introduce you to this content, please be sure to complete these questions in addition to those shared in the units.







	green@school Certification Checklist							
#	Measure/Action/Practice		s your s this me NO		Controlled by school staff administrator (SA), school district (D) or Students (ST)	Investigation Notes and Status		
	General/Staff and Student Education							
Req	uired							
1	Inform your students, staff and community about your environmental efforts and what you are doing to meet the green@school standards. For example: • Post the Green Business logo, certification and pledge in a visible location • Post reminders listing steps you are taking to be a Green School • Offer tours that highlight your Green School successes • Provide information on program progress at PTA meetings • Highlight your Green School efforts and/or certification on your website, and link it to the GBP home							







green@school Certification Checklist Does your school Controlled by school meet this measure? staff administrator Measure/Action/Practice **Investigation Notes and Status** (SA), school district DON'T YES NO **KNOW** (D) or Students (ST) General/Staff and Student Education Provide 3 on-going incentives or training opportunities to encourage management and employee participation in the Green Schools Program. For example: Incorporate Green School into performance appraisals, job descriptions, training programs, employee orientations, staff meeting discussions, employee reference material, student assemblies, school newsletter or bulletins and employee and student reward programs 3 Assist at least one other school or business in learning about becoming a Green School. Encourage them to enroll in the green@school or Green Business Program and provide their contact information to your Program Coordinator. Adopt a written environmentally preferable (or green) purchasing policy. Ask your Program Coordinator for templates. Establish a 'green team' that can help guide efforts to green your school.

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Access Partner Services

Support services are available to schools in California to access and implement changes on campus. Schools can host free water audits, energy audits, waste audits and more, and bring in subject matter experts to help the schools access free equipment and/or rebates. If your school is located in Northern California, contact your local PG&E representative to learn more about energy programs and free assessments or your local Energy Watch (such as Silicon Valley Energy Watch) to inquire about energy conservation. If located in other areas of California, access this map to help find out which utility provider to contact:

http://www.energy.ca.gov/maps/serviceareas/electric service areas.html. To find your local water agency, visit http://saveourwater.com/find-your-water-agency/ to partner in accessing ways to conserve water at school. Contact your City to access your local waste hauler. Each waste hauler is unique and will provide your school with the relevant information it will need for waste audits, recycling, composting and more!

In Santa Clara County and more locally, Cupertino, schools can access support services from Northern California's energy provider PG&E, local waste hauler Recology, regional Water District, Santa Clara Valley Water District and more! (Refer back to pg. 12 to learn more about what these partners offer!)

Surveys

Once you've completed your on-site inspection, students may find that there are still outstanding questions that need to be addressed in order to complete the checklist. In addition to contacting school or district staff/administrators to learn more (see memo template provided on pg. 29 to support this outreach), surveys can help identify peer and staff behaviors that are checklist-relevant. Survey development and analysis will guide student campaign strategies (noted in "Step 5 – Action" below) and help aid decision-making in regards to implementing environmental projects on their campuses. Surveys are a relevant and useful research method to apply in practice to bolster the learning experience for participating students. Further, students can utilize survey distribution to learn more about particular topics that relate to the changes they hope to implement on campus. Haven't compiled a survey yet in your class? See the template provided on pg. 26 to aid in your students' first green@school survey design to ensure they can gather the data needed to complete their checklists and develop their campaigns!

STEP 4: PLAN

Now that your students have completed the baseline assessment, it is time to outline which measures/actions/practices are left to complete school site certification (see checklist above – these are all the places where a "no" or "don't know" has been recorded). Know that numerous measures included within the green@school checklist that address infrastructure and practices







are often not directly under student or school site control, but rather are often managed across all school sites district-wide. Do not fear—students, perhaps more than any other stakeholder group, have the power to influence change! Each unit includes opportunities for students to write memorandums to the administration and district, design surveys, and campaign for targeted green@school changes at their school. But before we explain those actions in further detail, first students will develop an action plan to outline which measure, action, or practices are left for their school to become green@school and Bay Area Green Business certified. Each checklist is formatted for students to identify whether the action is managed by students, school administration, or school district staff (again see template above). When going through the practices that the school has not yet implemented, an important strategy to begin the development of the action plan requires some thinking about how the practices are managed:

- **Practices managed by the school**—most often apply to infrastructure, procurement and behavior measures. Some measures cannot be investigated, or investigation may prove unsuccessful. Students should ask teachers, the administration, or a district representative for help. For instance, if students don't know the contents of the school's hand soap, they can ask the custodian to show them the dispenser. If they aren't sure whether teachers print duplex (double-sided), they can interview their teachers or ask for access to the printer to see what the default setting is.
- **Practices managed by the district**—most often apply to the same measure types as "ask my school." If students ask their school about practices or infrastructure on campus and the school doesn't know, the district probably controls it. Example measures are those related to lighting purchases, HVAC maintenance, and energy management systems.
- Practices managed by the students most often apply to behavior practices at school. Fellow students can be surveyed, or incentivized through competitions or pledges for specific behavior outcomes. Picking up litter, reporting leaks in the bathroom, or assembling a student green team are examples of practices within student control.

STEP 5: ACTION

Scenario: During the green@school assessment, students find a practice that hasn't been implemented on campus. How do they make it happen? Students are natural campus change agents. They are the school's customer, primary stakeholder, and board of directors. They make changes across their campus every day through direct action, discourse and modeling. green@school seeks to leverage, reinforce and broaden this leadership through units (shared above) that contain tools to help students encourage and, in some cases, implement practices that conserve resources and, often, recover financial resources. Read on to learn the ways students will motivate and









mobilize change on campus using green@school custom-designed tools to support their efforts!

> Memos

Developing campaigns, initiatives and completing the outstanding measures required for certification will in most cases require the approval and support of administration. To build interest and gain backing to move ahead, students can draft persuasive memos to their principal, vice principal and/or a district administrator. Memos are a professional form of communication students can leverage to properly communicate to important campus stakeholders. Memos should include a persuasive reasoning, purpose and actionable requests to administration. Students should include researched facts, data from surveys, and use a professional format. Memos help develop formal communication skills and students will benefit from obtaining this skill early on, as they will likely write memos throughout their continuing educational and future professional careers. A template is provided on pg. 29 to help students get started in drafting this correspondence.

Surveys

Didn't have much luck with your first survey response? When in doubt, try, try again. Surveys offer a great way to communicate and gain information from the masses. If students surveyed their peers during the assessment phase with limited success, consider editing the survey to make it shorter, more direct, more engaging and couple it with an outreach campaign to notify students of its availability. During green@school's pilot, the survey was administered both electronically and in hard-copy by tabling at lunch and providing brownies to each survey respondent. Bribery is not encouraged, but treats to motivate peers to complete the assessment is always welcomed. Also consider changing your target audience by perhaps focusing next-step surveys on teachers, office staff, district staff, parents, etc. to broaden your respondents to ensure students can get the information they need to advance their measures and achieve certification! Again, if you need help getting started, please preview the template survey provided on pg. 26.

≻ Grants

During the green@school pilot, students were given the opportunity to apply for a mini-grant from the City of Cupertino. This program element offered students and instructors a chance to learn about the grant writing process. Grant writing provides students with valuable experience to make a strong case to receive funding available through non-profits, municipalities, and other organizations. Grants also provide opportunity for schools to implement some the more challenging practices from the certification checklists. Research grants that support your school's pursuit to be green! Visit this website (https://www.plt.org/greenworks) to gain an idea of a potential grant opportunity for your school to access or broaden your search to include other grant portals focused on environmental change at the school level.







- **Eligibility** schools are eligible for many grants at the local, county, state and federal levels. In addition, nonprofits and commercial organizations also support school efforts toward a more sustainable future. For assistance with finding additional opportunities, please contact sustainability@cupertino.org.
- **Process** to understand a typical grant process, refer to the graphic below.

Application cycle opens Application due date Awards announced Determine budget, goals and resources Project begins Project ends Report results

- **Grant Announcements** almost always clearly state the funding amount available through the grant. Generally, funds are disseminated for a term of one or two years during which time you must complete a project.
- Intent & Award funds for school grants are most likely offered to fund equipment and supplies, design and printing of education and outreach materials, or to support other expenses deemed appropriate to achieve program measures. Usually, accepted proposals include a detailed budget and project timeline.
 - **Project Budget** (How much will each part of the project cost? Itemize the costs for each including equipment, supplies, materials, training, etc.)
 - Project Timeline (What is the project's timeline? List specific milestones and time involved in completing each task Funds for school grants are most likely offered to fund equipment and supplies, design and printing of education and outreach materials, or to support other expenses deemed appropriate to achieve program measures. Usually, accepted proposals include a detailed budget and timeline.

Grants do require preparation, but will allow your school to consider and pursue projects that may not have seemed possible before! Once your school applies for one grant, that application can be used as a template for future grants. If your school has further questions about grant writing – don't hesitate to email sustainability@cupertino.org.

➢ Green@Home Do-it-Yourself Kit



Take green@home lessons learned on the road, by enabling students to implement changes not just on campus but in their own homes. Students can check out a Green@Home DIY Toolkit for one week from the Cupertino Library or any Santa Clara County Library Branch. This kit makes conserving energy and water costs at home as easy as checking out a book

from the library. The kit includes tools to install a range of FREE utility conserving devices (the devices are yours to keep!). Users can expect to save, on average, \$200 per year after

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installing the DIY Toolkit's equipment, which includes CFL light bulbs, faucet aerators, a low-flow showerhead, weather stripping, and more. The **Green@Home DIY ToolKit** also includes an easy "how-to" installation guide, complete with short URLs and QR Code links to interactive videos, to help residents navigate points of action in their homes, as well as tips on decoding utility bills and how to calculate your savings. The DIY Toolkit gives students, staff and instructors a "hands-on" approach to put the practices and activities they are exposed to in the g@s units at their own homes. This allows for the students to teach their families these practices and in turn, reduce energy and water at home and at school!

> Campaigns and Initiatives

The most effective way to rally students is to have them support a campus-wide initiative. The initiatives can be developed from the outstanding measures your school will need to complete to achieve Certification. Through student-developed campaigns, students learn the process and challenges associated with communicating environmental initiatives. In the environmental field, campaigns are an invaluable tool. Campaigns bring peers together for the support of a cause and, in this case, students will campaign to implement real changes at their schools. Campaigns give students an opportunity to strategically think about their goals while developing creative, interesting ways to deliver their messages in hopes of making a change happen at school. Every great campaign starts with a plan. So before you get out there and spread the word about your topic, take some time to do your research and develop a plan of action. Reference the campaign template in the appendix (pg. 23) to get started.

STEP 6: VERIFY

Now that you've completed the g@s units and associated checklists and pursued any outstanding activities/measures or practices, it's time to share your school's story with the certifying agency. In order to schedule a Bay Area Green Business Program assessment, you will need to apply online to submit the data the students gathered during their assessment. All of the data the students captured in each unit's checklist will make this online application and data entry process simple and efficient! To apply online, visit the California Green Business Program (http://www.greenbusinessca.org) website and apply and submit your application online to confirm a County visit. For schools in Cupertino, simply contact the GreenBiz office who will help you complete the online form – www.cupertino.org/greenbiz.

So what will your school expect during the County verification assessment? A representative from the County will come out to your school and walk through the g@s checklist again with you to determine if your school has met all of the requirements to become certified. The school will ask to visit areas with water fixtures, energy and lighting equipment, and more to ensure that these areas are compliant with the Certification. This process usually takes approximately 90 minutes, and the County will provide your school with a short list of any remaining action

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items left to become certified, if applicable. Once your school has met all of the requirements as verified by the County, the County will acknowledge your school as a Certified Green Business!

STEP 7: CERTIFY

Congratulations, your school is certified!

Once certified through the Bay Area Green Business Program, your school will be recognized by the City (if your school is located within Cupertino or other cities offering green business programs and services), the County and even the State for your environmental leadership demonstrated by achieving all the standards set forth in the Bay Area Green Business Program. Your school will receive a certificate as well as logos and signage to display on school grounds from the County to distinguish your school from others in your community. Your school will also be recognized (if located in Cupertino) at a City Council meeting and the annual Awards Ceremony hosted by Santa Clara County (if located in our County). Additionally, your school's web presence will increase as it will be listed in the California Green Business directory, which increases your school's click-through value to ultimately distinguish your school as one that is committed to the environment.

Certification must be renewed **every three years**, giving students a unique, ongoing opportunity to campaign and initiate additional sustainability projects.

How do I get started?

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To get a g@s program started at your school, you'll need to involve your school's district, principal, faculty and most importantly – the students. To implement change on campus, all of these groups should work together towards a common goal. Below, you'll find how each of these groups can get started in initiating a g@s club on campus, and the roles each group will take to contribute to a successful program. If your school is interested in starting its own g@s program, read on to pg. 22 to find out how you can learn more and who you can contact!

District

- Initiate a green@school community among all of the schools in your district
- Set forth a common goal for the schools in your district (e.g. fostering a green@school club, achieving the California Green Business Certification)
- Offer support and resources to achieve the California Green Business Certification and/or the green@school club

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Principal

- Elect green@school faculty champion(s) to oversee a green@school club on campus
- Inform the School District, faculty, staff and community of a new g@s club
- Be a liaison between the School District and the g@s club to effectively communicate the changes students will strive to make on campus

Teacher

- Access the units available to review the background knowledge, activities and materials needed to successfully start a g@s club and/or embed g@s materials into your curriculum
- Provide guidance for students and oversee g@s club meetings and efforts
- Be a liaison between the students and the Principal, faculty and staff to effectively communicate the changes students will strive to make on campus

Student

- Be ready to learn, ask questions and engage in the g@s program and materials
- Recruit your fellow peers and classmates to join the g@s club/program!
- Engage your families with the material you learn and the changes you make on your campus in hopes of implementing the same changes at home

To start your baseline assessment, start below with the first set of certification measures: "General/Staff and Student Education."

As described in the green@school Handbook, each Unit corresponds with a targeted resource conservation goal and a specific section of the California Green Business Program's checklist, designed so that students will use this tool (the checklist) to assess their current campus environmental actions and identify opportunities for improvement (learn more at http://www.greenbusinessca.org/). This will occur following their deep dive into the subject through the lessons and activities shared in this chapter that seek to build their baseline knowledge on the subject before they are asked to become subject matter experts assessing their school's operations and practices. The checklist is included at the beginning of each unit so you can see what you're building towards, but again, know that its expected use will follow the activities and lessons shared below. Further, completing the actions in this checklist will enable your school to receive statewide recognition for your environmental leadership (bonus!). To assess the general education requirements practices on your campus, walk through this list with your students, administrators, or other resource-relevant school site staff.







Where do I learn more?

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Who will be involved in green@school?

Green@school will be facilitated by the City of Cupertino, but the program has many other involved partners that provide resources to help schools achieve certification and/or help to implement new projects on campus. These partners are:

- Santa Clara County
- Cupertino Union School District
- PG&E
- Santa Clara Valley Water District
- Right Lights
- Recology

A handful of public K-12 schools have already achieved Green Business Certification in Santa Clara County. The Mountain View Los Altos High School District and their three high schools, Mountain View High, Los Altos High and Alta Vista High are all certified Green Businesses. To learn more about how these schools achieved certification, check out this article (thtp://www.mv-voice.com/print/story/2011/10/21/mvla-is-bay-areas-first-district-to-go-all-green) or search for more certified schools at www.greenbusinessca.org.

Who do I contact?

Do you have what it takes to go **green@school**? Enroll your school in the City of Cupertino's green@school program to find out! Contact the City's green@school team at sustainability@cupertino.org or (408) 777-7603 for more information. The Sustainability and Climate Change Primer and six green@school units will be available at the City of Cupertino's website June 2015 for download!







Appendix

Campaign Template

Use the campaign template below for each green@school supplemental unit and you will be well on your way to success! This template will help students identify the resources they will need to implement new sustainability measures at school.

Campaign Name	
1 0	
What will you call	
your campaign?	
Make sure it's	
simple and	
powerful.	
Objective (Why?)	
-	
What green@school	
measures does this	
campaign help your	
school attain? What	
is the issue this	
campaign tackles?	
Messaging	
(What?)	
What information	
do you want people	
to know about your	
campaign? (Facts,	
statistics, stories)	
Marketing	
(How?)	
TT '11 11	
How will you sell	
your campaign to peers, staff, and/or	
parents?	
(Announcements,	
posters, social media,	
etc.)	

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Cost and	
Resources	
(How?)	
List any materials	
required and	
estimated costs	
Timeline	
(When?)	
Describe the timing	
of your campaign.	
When will it	
launch? When will	
you check progress?	
Team Roles	
(Who?)	
TA71 '11 1 1	
Who will help	
implement this	
campaign? Assign	
roles to team members.	
Metrics	
Wietrics	
How will you	
measure the success	
of your campaign?	
ej yem emnemgin	
Follow-up	
1	
Does this campaign	
require any follow-	
up? If so, what is	
the plan to follow-	
up on progress?	







Grant Application Worksheet:

Before applying for a grant, consider filling in this worksheet to think through the projects that will need funding. With this worksheet, grant applications will be easy!

Project Title (What's your	
project called?)	
,	
Project Description (What's	
your project seeking to	
, ,	
accomplish? How will it	
accomplish this?)	
Funding Support	
Requested (What is the total	
project cost?)	
Project Team & Relevant	
Experience (Who's on your	
team (names/grades) and how	
have you worked in this area	
before? If you are submitting	
this in collaboration with other	
teams (schools), please list all	
teams and explain why each	
team is involved.)	
Project Need (Why is this	
project important? What will	
your project achieve? How	
will it benefit the school? Its	
students? The district? The	
Community?)	
y · /	

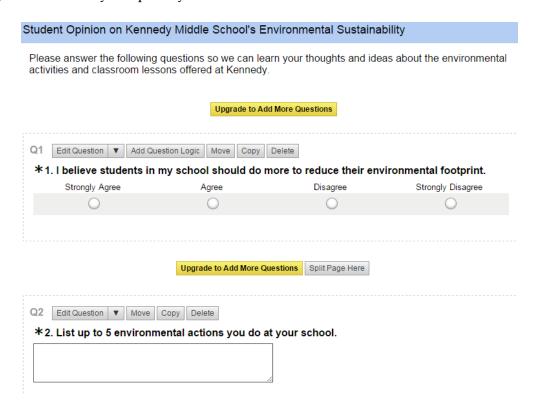






Survey Example:

The following survey was administered to students at Kennedy Middle School (designed by the City of Cupertino). This survey was used to gather insight on student attitudes towards environmental activities at their school. Go ahead and use this survey at your school or develop your own survey unique to your school!









	Upgrade to Add More Questions	Split Page Here	
Edit Question ▼ Ad	d Question Logic Move Copy Delete		
		er, energy, paper	, pencils).
	rages me to save resources (water		
4. My school encou Strongly Agree	Agree	Disagree O	Strongly Disagree
		Disagree	







	To a large extent	To a moderate extent	To some extent	To little extent	None at all
Family	0	0	0	0	0
School (programs and clubs)	0	0	0	0	0
School (teachers and classes)	0	0	0	0	0
Science Fairs		0	0	0	0
Social Media (Facebook, Twitter)	0	0	0	0	0
Internet (google, other sites)	\bigcirc	0	\circ	\circ	0
Community Groups	0	0	0	0	0
Advertisements	0	0	0	0	0
Friends	0	0	0	0	0
Other (please specify)					







Memo Template







To:			
From:			
CC:			
Date:			
RE:			
,			