



**2013-2014 Presentation of Nominee to the U.S. Department of Education**

**Green Ribbon Schools Program**

**Of Behalf of the DC Office of the State Superintendent of Education**

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## PART I - ELIGIBILITY CERTIFICATION

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### 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 one or more of grades K-12. (Schools on the same campus with one principal, even a K-12 school, must apply as an entire school.)
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.
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.

For Public Schools only:  Charter  Title I  Magnet  Choice

Name of Principal Ms. Maquita Alexander

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

Official School Name Washington Yu Ying Public Charter School

(As it should appear in the official records)

School

Mailing Address 220 Taylor Street, NE,

(If address is P.O. Box, also include street address.)

Washington State DC Zip 20017 City

County \_\_\_\_\_ State School Code Number\* 1117

Telephone ( 202 ) 635-1950 Fax ( 202 ) 635-1960

Web site/URL http://www.washingtonyuying.org E-mail maquita@washingtonyuying.org

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

Maquita Alexander Date January 29, 2013

(Principal's Signature)

Name of Deputy Superintendent of Education\* Sandra Schlicker

District Name\* n/a (Charter School) Tel. 202 741-5252 n/a

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate. This is one of the highest performing green schools in my jurisdiction.

Sandra Schlicker Date 2/12/13

(Deputy Superintendent's Signature)

## **PART II – SUMMARY OF ACHIEVEMENTS**

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Washington Yu Ying Public Charter School has taken great strides to become one of Washington, DC's greenest schools through the following initiatives and programs:

- Compliance with the DC Healthy Schools Act which supports the Green Ribbon Schools Program by:
  - Enhancing nutrition of school meals by including more whole grains, a variety of fresh fruits and vegetables, less fat, and less sodium;
  - Serving locally-grown, unprocessed foods in school meals whenever possible;
  - Ensuring that farm-fresh foods are grown sustainably whenever possible;
  - Participating in at least one Farm to School educational program each year;
  - Providing at least 30 minutes/ week (K-5) and 45 minutes/week (6<sup>th</sup> grade) of physical education; and
  - Developing a Local Wellness Policy team to help shape the school's wellness policy.
- The development of a one acre Nature Center that provides opportunities for students to engage in hands-on outdoor learning.
- The careful renovation of a building constructed in 1902 which now includes many LEED features, and the construction of a new addition which employs additional energy and water saving systems.
- The construction of a large school garden which is used as an outdoor classroom to teach students about sustainable agriculture, nutrition education, and the environment.
- A significant reduction in energy and water use over the past 12 months.
- A commitment to outdoor and environmental education across all grade levels.

### PART III – DOCUMENTATION OF STATE EVALUATION OF NOMINEE

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#### **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 one or more of grades K-12. (Schools on the same campus with one principal, even a K-12 school, must apply as an entire school.)
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: The Office of the State Superintendent of Education

Name of Nominating Authority:

I have reviewed the information in this application and certify to the best of my knowledge that the school meets the provisions above. *Sandra Schlicker* Date 2/12/13

(Nominating Authority's Signature)

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

OMB Control Number: 1860-0509

Expiration Date: February 28, 2015

#### **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](mailto: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.

**Documentation:**

School Contact Information:

School Name: Washington Yu Ying Public Charter School

Street Address: 220 Taylor Street, NE Zip: 20017 Ward: 5

Website: www.washingtonyuying.org Principal Name: Maquita Alexander

Principal Email Address: maquita@washingtonyuying.org Phone Number: 202-635-1950

Lead Applicant Name (if different): Sarah Perkins

Lead Applicant Email: sperkins@washingtonyuying.org Phone Number: 202-635-1950

Grade Level:  K-6  7-8  9-12 School Type:  Public  Independent  Charter

% Free/Reduced Lunch 20%

**Cross Cutting Question:**

In five short years, Washington Yu Ying Public Charter School (Yu Ying) has successfully taken measures to reduce our environmental footprint. Yu Ying has grown rapidly from 130 students and 22 full-time staff in 2008 to 439 students and approximately 81 full-time and part-time staff in 2012. Despite this rapid growth, environmental issues have not been neglected. Yu Ying has done its best to be green in both our incubator space and our present, permanent location. In the span of 4 months, Yu Ying renovated and constructed our new space as environmentally friendly as possible and instituted measures for staff and students to recycle, share and reuse. Yu Ying has also sought out partnerships with organizations dedicated to reducing human impact on the environment.

In the fall of SY 2011-12, we moved into our permanent location on 3 wooded acres of land, a unique and treasured setting for an urban school. Yu Ying recognizes the rarity of this outdoor space in DC and is carefully cultivating it. Two acres house the school building and playground and one back acre is gently sloped and wooded. This back acre has been developed into a Nature Center complete with nature trails, a pond, and an observation deck. Yu Ying is taking advantage of this incredible outdoor oasis by making the campus a space for environmental education and efficient living. In the past year and a half, Yu Ying has gutted and renovated the existing 30,000 SF structure and erected a 10,000 SF addition. Both structures were built to be as energy and environmentally friendly as possible in the 4 months before school opened. We have also held sustainability meetings with community members (DC Department of Transportation, Metropolitan Police Department, ANC, parents, students and staff) and sustainability experts to make well-informed decisions regarding the development of the space. Yu Ying instituted measures to exist as “greenly” as possible by:

- Minimizing site disturbance by building the addition in the location of a previously demolished building.
- Insulating both the existing building and the addition.
- Establishing a school-wide recycling program.
- Using recyclable and renewable materials whenever possible.

- Managing storm water runoff onsite.
- Using Google Docs to reduce printing.
- Communicating with parents and staff via Constant Contact and email (unless a parent does not have access to email).
- Installing operable windows throughout the building.
- Using energy efficient lights.

Yu Ying is also working to improve the health and wellness of students and staff. We take part in the National School Lunch Program and comply with the requirements of the DC Healthy Schools Act. Our chosen school lunch vendor, Revolution Foods, is committed to providing clients with healthy, unprocessed food. Yu Ying students receive at least 210 minutes of physical activity per week. Additionally, Yu Ying has a “no junk food” policy and wellness policy that closely mirrors the DC Wellness Policy. Outside of the classroom, there are opportunities for students and staff to be healthy. Yu Ying offers several after school classes for students dedicated to wellness and physical activity. The Parent Association’s Wellness Committee liaises with the school to organize activities such as community planting days, spring fun days and staff/parent soccer matches. Staff also participates in group-fitness nights. Other actions taken include: 1) Ensuring all paints, adhesives, flooring, finishes, and coatings are “Low VOC” emitting materials (many are regionally produced and manufactured); and 2) Using green certified cleaning products.

Yu Ying employs the International Baccalaureate Primary Years Program (IB PYP) curriculum. This curriculum allows for the incorporation of environmental and sustainable topics in many of the 6 trans-disciplinary themes around which units of inquiry (UOI) are based. In particular, the “Sharing the Planet” theme explores how to share finite resources with other people and living things. Each year, there is a unit that corresponds to environmental and sustainable education. Furthermore, we are fortunate to have access to the back acre’s Nature Center. In the spring, teachers will take student groups down to the storm water retention pond to record data, draw observations and collect water samples.

Yu Ying has collaborated with green organizations to educate and inform students and staff. At our previous location, the RiverSmart Schools Program installed rain barrels to capture storm water. The rain barrels provided Yu Ying with water to nourish our school garden and alleviated use of the city’s water. We have been accepted into the SY 13-14 RiverSmart Schools Program and will install rain barrels at our current site. Yu Ying students have also accompanied Groundwork Anacostia DC to clean up trash on the banks of the Anacostia River. Other activities include field trips to ECO City Farms and the American University Community Garden. At ECO City Farms, students toured the farms and listened to experts discuss sustainable farming techniques. At American University, students toured the community garden and discussed horticulture with garden caretakers. Experts from City Blossoms, Revolution Foods and the Arcadia Center for Sustainable Agriculture have also held presentations at Yu Ying.

Yu Ying has received a number of grants related to the environment and health. These include a *Washington Parks and People Community Harvest Mini-Grant*, the *OSSE School Garden Grant*, the *OSSE Physical Activity for Youth Grant*, and the *Project Learning Tree Grant*.

1. Is your school participating in a D.C. or national school program which asks you to benchmark progress in some fashion in any or all of the Pillars?

Yes  No Program(s) and level(s) achieved: National School Lunch Program; Healthy Schools Act – Yu Ying is compliant.

2. Has your school, staff or student body received any awards for facilities, health or environment?

Yes  No Award(s) and year(s): National Wildlife Federation Certified Wildlife Habitat, 2012; EcoSchools Bronze Award, 2012. Yu Ying also received a Least Restrictive Environment (LRE) Award (2012) from OSSE for Compliance with requirements of Section 504 of the Rehabilitation Act of 1973 and the Individuals with Disabilities Education Act (IDEA).

**Pillar I: Reduced Environmental Impact and Costs (30%)**

Element 1A: Energy

1A. Please provide past 12 months of gas and electricity usage:

Gas:

13-MONTH ENERGY USE HISTORY			
Mo/Yr	Temp	Th	Days
10/12	63	43	29
09/12	65	39	32
08/12	65	29	29
07/12	65	34	30
06/12	64	50	32
05/12	60	55	29
04/12	58	114	29
03/12	46	948	30
02/12	40	1656	32
*01/12	41	2112	31
12/11	48	389	34
11/11	55	293	29
10/11	63	48	31

Total TH 5,810 Electricity:

**Energy Usage History**

	Nov 11	Dec 11	Jan 12	Feb 12	Mar 12	Apr 12	May 12	Jun 12	Jul 12	Aug 12	Sep 12*	Oct 12*	Nov 12
DAYS	27	35	29	29	33	29	28	34	30	29	29	30	30
KWH	22560	27120	36800	33840	31840	23920	25040	35120	29920	26400	30800	30800	30800
ON PK	7920	8560	9680	10880	10560	8160	9040	12480	11200	9920	12028	12026	12026
INT PK	6960	7440	9280	9600	9120	7200	7840	10160	7680	6800	8400	8400	8400
OFF PK	7680	11120	17840	13360	12160	8560	8160	12480	11040	9680	10374	10373	10373
KW-MAX	105.6	81.6	126.4	112.0	89.6	102.4	104.0	113.6	127.2	100.8	129.6	129.6	129.6
KW-ON PK	105.6	81.6	126.4	112.0	89.6	102.4	104.0	113.6	121.6	100.8	124.8	124.8	124.8

Can your school demonstrate a reduction in Greenhouse Gas emissions?

Yes (Gas)  No Percentage reduction: 11% Reduction in Heat

Over (m/yy - m/yy): 10/11 to 10/12

How did you calculate the reduction? In November 2011, Yu Ying had not yet occupied the 10,000 SF addition. This addition amounts to 33% more space that had to be heated and powered. Despite the bigger space, Yu Ying reduced carbon dioxide emissions 11%. The reduction was calculated by comparing October 2011 greenhouse gas emissions (48 TH - .24 metric tons of CO2) to October 2012 greenhouse gas emissions (43 TH - .215 metric tons of CO2). We are working towards reducing our electricity usage by turning off lights when students are out of the room and using sunlight in lieu of electricity when sufficient. However, the number of students increased from 364 to 439 from SY 11-12 to SY 12-13. The number of staff also increased from approximately 67 to 81.

2A. Has your school received EPA ENERGY STAR certification or does it meet the requirements for ENERGY STAR certification?

Yes  No Year(s) and score(s) received: 2012 Score: 68. This score was calculated by John Andreoni at DCSEU (documentation provided).

3A. Has your school reduced its total non-transportation energy use from an initial baseline?

Yes  No – In our previous location, we shared a building with another charter school. We moved into our present location in August 2011. Prior to moving in, we renovated the existing building and then built an addition. All appliances are new and highly efficient. Yu Ying also replaced all of the old windows with new energy efficient windows. In the existing building the windows are by St. Claire Window & Door Corporation and are PVC with double pane Low E/ Argon insulated glass. In the 10,000 SF addition, the windows and doors are by Kawneer and are aluminum with double pane Low E insulated glass. Furthermore, in the addition, the operable windows are surrounded by floor to ceiling glass, which allows teachers to turn off the lights if there is sufficient daylight.

Current energy usage (kBtu/student/year): 156670.8 (over 10 months – school year is 10 months).

Current energy usage (kBtu/sq. ft./year): 1201.22 – over 12 months

Percentage reduction: 10.4% over (m/yy - mm/yy): 10/11 to 10/12

How did you document this reduction? In 10/2011, Yu Ying's kBtu was 4803214. In 10/2012, Yu Ying's kBtu was 4302879. There was a 10.4% reduction in 12 months, but we also added 33% more space with the addition.

4A. What percentage of your school's energy is obtained:

On-site renewable energy generation: 0% Type:  Solar  Wind  Geothermal

Purchased renewable energy: 0% Type:  Solar  Wind  Geothermal  Other \_\_\_\_\_

Does your school participate in USDA Fuel for Schools, DOE Wind for Schools or other federal or state school energy programs?  Yes  No If yes, name the program(s): \_\_\_\_\_

5A. What year was your school originally constructed? 1902 What is the total building area? 40,000 SF

6A. Has your school constructed or renovated building(s) in the past ten years?  Yes  No

For new building(s):

Total constructed area: 10,000 SF Does this building meet green building standard?  Yes  No  
Certification and level: Although our building was not built to LEED standards, many of the components do comply with LEED standards. We instituted measures to make it as "green" as possible given time constraints. The 2011-12 school year had already begun and we needed access to the cafeteria/multipurpose room (part of the addition) as soon as possible. We minimized site disturbance by building the addition in the location of a previously demolished, unusable, building. The addition has an under slab, foundation and wall and ceiling insulation. The ceiling tiles throughout the addition comply with several LEED requirements (i.e. recycled content, local and renewable materials, etc). All of our light fixtures are energy efficient T-8 fluorescent with full spectrum lamps. There is a light colored roofing membrane and pavers. There are also 48 operable windows (double pane Low E insulated glass) throughout the addition to improve air quality and reduce mechanical system requirements. The roof is designed to accommodate a green roof installation.

For renovated building(s):

Total renovated area: 40,000 SF Does this building meet green building standards:  Yes  No  
Certification and level: The renovation of the existing building was designed to be as "green" as possible within the 4 month time constraint. Existing windows were replaced with energy efficient PVC double pane Low E/ Argon insulated ones. We also added wall and roof insulation. As in the addition, all 112 windows are operable, we use energy efficient lights, all paints, adhesives, flooring, finishes and coating are low emitting (VOC) and many are regionally produced and manufactured. Furthermore, there are two circuits and switches per light fixtures in both the renovated building and the addition for reduced energy consumption control when daylight levels are adequate. For example, if there are 4 lights in a room, each light switch has two switches so that teachers can control the number of lights that go on. On sunny days, they may only turn two lights on instead of all 4. Yu Ying also replaced a previous chiller with a high efficiency one and installed a new boiler and fan coil units. Low consumption flush valves have been installed on toilets and urinals throughout the renovated space and the addition. A Kone EcoSpace gearless and oil free elevator with reduced power consumption was installed Elevator use is limited to handicapped visitors (currently, no students or staff use the elevator) and janitorial use (for transportation of cleaning equipment).

Element 2A: Water and Grounds

7A. Can you demonstrate a reduction in your school's total water consumption from an initial baseline?

Average Baseline water use (gallons per occupant): 151.57 gallons per occupant per month. From September 2011 to June 2012, the average monthly water consumption was 65,325 gallons per month. There were approximately 431 occupants in the building during SY 11-12.

Current water use (gallons per occupant): 108 gallons per occupant

Percentage reduction in domestic water use: 29%

Percentage reduction in irrigation water use: We do not require an irrigation system.

Time period measured (mm/yyyy - mm/yyyy): 09/2011 to 10/2012

How did you document this reduction? DC WASA did not read Yu Ying's meter for 272 days (approximately 9 months) of the SY 11-12. However, in July they billed us for the total gallons used from September 2011 to June 2012. The total gallons (587,928) divided by 9 months is 65,325 gallons per month. This average divided by the number of occupants (431) in SY 11-12 is 151.57 gallons per occupant per month (from October 2011 to June 2012). The last read of this year that we have is October 2012. The total gallons of water used 56,100 divided by the number of occupants this year (520) is 108 gallons per occupant. Therefore, there is a 29% reduction in water usage from 151.57 gallons of water per occupant in SY 11-12 to 108 gallons of water per occupant in SY 12-13.

8A. What % of your landscaping is considered water-efficient and/or regionally appropriate? More than 90% of our grounds are not watered and we have systematically been removing non-native plants. Of maintained areas, nearly all space is dedicated to edible gardens, which are as water efficient as possible. The only non-edible garden landscaping that is watered during periods of no rain is a small flower bed (<400ft<sup>2</sup>) near our main entrance.

9A. Describe any alternate water sources used for irrigation. (50 words max): We do not have alternate water sources for irrigation. However, we are part of the RiverSmart Schools program, and will work with them to install rain barrels. The water collected in the rain barrels will be used to water our edible garden as we did in our previous location.

10A. Has your school participated in the District Department of the Environment RiverSmart Schools Program?

Yes  No

If no, describe any efforts to reduce stormwater runoff and/or reduce impermeable surfaces.

We participated in the RiverSmart Schools program at our previous site and have been accepted into the RiverSmart program for SY 13-14. However, we have already installed a storm water management system onsite, and nearly all storm water runoff is captured, managed and infiltrated. Yu Ying sits at the top of a hill. The stormwater management system directs Yu Ying's rainwater to the Nature Center (the back acre). There is a natural flow from the top of the hill down the hill to the Nature Center. In addition to the natural flow, the building's downspouts run from the building, under the asphalt, and exit out of the hillside into the Nature Center. The downspouts direct and deposit rainwater to the Nature Center and into the runoff pond, which is at the bottom of the hill. Additionally, there are weirs built into the hill to help prevent erosion. Furthermore, along the walkable path to the Nature Center, there are dry-stream beds to help direct water. Pipes also direct water from the hill on the 2<sup>nd</sup> Street, NE side of the Nature Center, down to the pond. Lastly, if the pond overflows, a dry-stream bed directs water to two bales of hay at the bottom of the hill to prevent stormwater from running onto 2<sup>nd</sup> Street, NE.

11A. Describe the program you have in place to control lead in drinking water. (50 words max)

New copper internal piping was installed throughout the building during renovation and the water fountains contain filters. Yu Ying's water was tested and analyzed by AMA Analytical Services in December 2012. The results showed that all samples were <1 mg/L. The action level needed for remediation is 15 mg/L.

12A. What % of the school grounds are devoted to ecologically beneficial uses? Describe (50 word max).

Approximately 50% of Yu Ying's campus is ecologically beneficial. Yu Ying's Nature Center (1 acre out of 3 total) is a "Certified Wildlife Habitat". Furthermore, there is an additional .5 acres of unpaved land at Yu Ying that contains trees and other shrubs beneficial to living species.

Element 3A: Waste

13A. What percentage of solid waste is diverted from landfilling or incinerating due to reduction, recycling and/or composting? Complete all the calculations below to receive points.

A - Monthly garbage service in cubic yards (garbage dumpster size(s) x number of collections per month x percentage full when emptied or collected): 88 cubic yards

B - Monthly recycling volume in cubic yards (recycling dumpster sizes(s) x number of collections per month x percentage full when emptied or collected): 44 cubic yards

C - Monthly compostable materials volume(s) in cubic yards (food scrap/food soiled paper dumpster size(s) x number of collections per month x percentage full when emptied or collected):  
1.27 cubic yards

Recycling Rate =  $((B + C) \div (A + B + C) \times 100)$ : 33.97 %

Monthly waste generated per person =  $(A/\text{number of students and staff})$ : .18 cubic yards

14A. What percentage of your school's total office/classroom paper content is post-consumer material, fiber from forests certified as responsibly managed and/or chlorine-free? 30%

15A. List the types and amounts of hazardous waste generated at your school:

Flammable liquids: 0%

Mercury: 0%

Corrosive liquids: 0%

Toxics: 0%

Other: 0%

How is this measured? We do not generate any of the above hazardous waste as we do not have a science lab. Art class paints are all water-based and non-toxic.

How is hazardous waste disposal tracked? N/A

Describe other measures taken to reduce solid waste and eliminate hazardous waste. (100 word max)

Yu Ying does not have a science lab and does not store any chemicals. Although the Yu Ying 5<sup>th</sup> grade students have begun science experiments in the classroom, they are only using non-toxic materials such as salt. Paint for art class is all non-toxic and water-based.

16A. Which green cleaning custodial standard is used? Yu Ying uses Cleanhouse janitorial services to clean our school. Cleanhouse employees are all trained to the "[Cleanhouse Janitorial Cleaning Standards™](#)". Yu Ying purchases our own products.

What percentage of all products is certified? 90%

What specific third party certified green cleaning product standard does your school use? Green Seal

Element 1D: Alternative Transportation

17A. What percentage of your students walk, bike, ride metro, or carpool (2 + student in the car) to/from school? 1.6% bike to school, 13.47% ride the bus, 27.63% ride in a 2+ car, and 3.2% walk.

How is this data calculated? (50 word max)

Teachers took a poll of students during their morning meeting and tallied the results with the students on the whiteboard. These results were entered into a shared Google Doc data spreadsheet.

18A. Has your school implemented?

Designated carpool parking stalls. Yu Ying has a carpool lane on campus for cars carrying 3 or more Yu Ying students. All others must either drop off at the bottom of the nature center or park legally on the street and walk to school.

A well-publicized no idling policy that applies to all vehicles (including school buses). Yu Ying sent out a constant contact to parents publicizing the no-idling policy on campus. We also have "Turn Off Your Engine" signs posted in the carpool lane and delivery-unloading zone.

Vehicle loading/unloading areas are at least 25 feet from building air intakes, doors, and windows. Yu Ying established a "kiss and ride" morning drop off system more than 25 feet from the building (at the bottom of our nature center). Students are dropped off and walk up to school through the nature center. However, there is a carpool lane on campus that allows those with 3 or more Yu Ying students drop off and pick up. Drivers are instructed to turn off their engines while waiting. There are no windows on that side of the building, though the door is open during drop-off and pick-up. We are re-evaluating the use of the carpool lane as we now have the "kiss and ride" system operating well.

Safe Pedestrian Routes to school or Safe Routes to School

19A. Describe any other efforts toward reducing environmental impact, focusing on innovative or unique practices and partnerships. (50 word max)

We participated in National Bike to School Day and worked with DC Department of Transportation to institute a safe and efficient kiss and ride drop off system during morning arrival. We have instituted a storm water runoff system. There are recycling bins in all classrooms for single stream recycling.

**Pillar 2: Improve the health and wellness of students and staff (30%)**

Element 2A: Environmental Health

1B. What is the volume of your annual pesticide use (gal/student/year)? .00168 gallons/student/year

Describe efforts to reduce use:

Our service uses both liquid and non-liquid products. From July to November 2012, Orkin used the following at Yu Ying: 1) Thirty-six 1 oz blocks of Contrac (exterior rodent control) around the periphery of the building; 2)

Five oz of Cy Kick and 16mm of Tempo sc and 12 grams of Advion ant gel that was used once for an ant issue over the summer. It is hard to calculate the gallons per student per year, because some of these products are not liquid and some are not needed in the winter. However, solely estimating the amount of liquid products, results in approximately .00168 gallons/student/year. Orkin uses integrated pest management at Yu Ying and does not spray each time they come to do a check.

2B. Which of the following practices does your school employ to minimize exposure to hazardous contaminants? Provide specific examples of actions taken for each checked practice.

Our school prohibits smoking on campus and in public school buses.

Our school has identified and properly removed sources of elemental mercury and prohibits its purchase and use in the school. Yu Ying does not have any mercury thermostats.

Our school uses fuel burning appliances and has taken steps to protect occupants from carbon monoxide (CO). Yu Ying has a gas furnace. We have installed carbon monoxide alarms.

Our school does not have any fuel burning combustion appliances

Our school has tested all frequently occupied rooms at or below ground level for radon gas and has fixed and retested all rooms with levels that tested at or above 4 pCi/L OR our school was built with radon resistant construction features and tested to confirm levels below 4 pCi/L.

Yu Ying tested all rooms below ground level for radon. One room out of nine came back with results above 4pCi/L. Because of the frequency of false positives, we retested this room. The result was still higher than the recommended level. However, this room contains rocks, soil and plants as part of the school garden program, all of which can increase the amount of radon in a room. We plan to retest after removing the rocks and soil.

Our school has identified any wood playground or other structures that contain chromate copper arsenate and has taken steps to eliminate exposure.

Yu Ying recently built a wood observation deck over the pond in our back acre/nature center. The deck's wood is newly purchased from Home Depot and has not been treated with chromate copper arsenate. The edible garden was constructed using untreated lumber for the raised beds.

3B. Describe how your school manages chemicals routinely used in the school to minimize student and staff exposure. (50 word max)

Cleaning supplies are kept in the locked janitor's closet. Lunch tables are wiped with diluted Dr. Bronner's soap and water. Yu Ying uses Dr. Bronner's soap in all toilets. Dr. Bronner's soap receives an A+ on the Environmental Working Group's website and is Green Certified by Green Seal.

4B. Describe actions your school takes to prevent exposure to asthma triggers in and around the school. (50 word max)

Yu Ying's facilities crew routinely checks for mold. Floors are mopped daily. We also use cleaning products that are green certified and do not trigger asthma. Furthermore, Yu Ying is a nut-free school.

5B. Describe actions your school takes to control moisture from leaks, condensation, and excess humidity and promptly cleanup mold or removes moldy materials when it is found. (50)

Our building/facilities crew periodically checks the building for mold. Teachers and administrative staff know to contact the Building Manager or Chief Operating Officer (COO) if there is a problem and the issue is promptly addressed. Our new construction prevents many mold issues because the building is well insulated and ventilated.

6B. Our school has installed local exhaust systems for major airborne contaminant sources.  Yes  No

7B. Describe your school's practices for inspecting and maintaining the building's ventilation system and all unit ventilators to ensure they are clean and operating properly. (100 word max)

Interstate Service Company technicians are contracted to inspect our HVAC system and replace filters every 3 months. Additionally, Yu Ying's Building Manager, COO and other staff are on hand to address any issues that may arise. Our HVAC design for ventilation is based on the International Mechanical Code (IMC) for natural ventilation except in areas without windows or where mechanical ventilation is required by section 403 of the IMC. For interior fresh air, the unit has a makeup air unit with an intake of 2875cfm.

8B. Describe actions your school takes to ensure that all classrooms and other spaces are adequately ventilated with outside air, consistent with state or local codes, or national ventilation standards. (50 word max)

Classrooms are equipped with MERV 13 air filters, air returns and operable windows. The Building Manager routinely monitors the building to ensure outdoor air intakes are clear of debris. The Building Manager liaises with the HVAC company to ensure that all systems remain up to code.

9B. Describe other steps your school takes to protect indoor environmental quality such as implementing EPA IAQ Tools for Schools and/or conducting other periodic, comprehensive inspections of the school facility to identify environmental health and safety issues and take corrective action. (100 word max)

Yu Ying performs many of the checks that are on the IAQ checklist. We use MERV 13 filters in our classrooms. Filters are replaced quarterly. Asthma triggers such as dust, mold, and pesticides are controlled. The school is mopped daily and teachers are instructed to close windows at the end of the day. There is a washing machine and dryer onsite where teachers can wash small rugs and other linens. Chemical spill emergency procedures are in every classroom and trash is taken outside to the dumpster daily. Paint for art is non-toxic and water-based.

#### Element 2B: Nutrition and Fitness

10B. Which practice/s does your school employ to promote nutrition, physical activity and overall school health? Provide specific examples of actions taken for each checked practice, focusing on innovative or unique practices and partnerships. (100 word max each)

Our school participates in the USDA's HeathierUS School Challenge.  Yes  No

Level and year: \_\_\_\_\_.

Yu Ying received the OSSE DC Physical Activity for Youth Grant to increase student physical activity and promote wellness. As part of the grant, we are required to hold two community fitness events and track our students' physical fitness. Yu Ying has already held a school dance and a community planting day. Our Wellness Advisory Board, made up of students, staff and parents, is also planning a Spring Fun

Day. The two PE teachers are tracking student fitness through the “Yu Ying Challenge,” an obstacle course of activities that is aligned with the DC Standards.

Yu Ying also received the OSSE School Garden Grant. With the grant money, we were able to build nine raised beds and grow zucchini, squash, strawberries and several herbs among other edible plants. The afterschool Garden Club was responsible for maintaining the garden and learned about composting, vermiculture and other gardening concepts. Students also made nutritious meals through food demonstrations with the vegetables and herbs they grew. The edible garden also boasts a large hoop house that is used to extend the seasons.

Our school participates in the following Farm to School programs:

Strawberry and Salad Greens; most recent year: 2012

Growing Healthy Schools Week 2012 (formerly DC School Garden Week and DC Farm to School Week – combined into Growing Healthy Schools. Yu Ying did participate in both DC School Garden Week and DC Farm to School Weeks in 2011).

Please describe how you participated in these weeks (50 words max)

Yu Ying served strawberries and salad greens, had “Where Food Comes From” displays about the farm-to-table process, held community planting days, had local farmer visits and held a hoop house building workshop during Growing Healthy Schools Week. Students also took field trips to community gardens, including the White House garden.

Our school has offered students a lunch menu that meets the HUSSC gold level menu criteria over the past school year (check yes if you received HSA lunch meal reimbursements)

Our school garden supplies food for our students through a cooking or garden class or to the community

Our students spent age appropriate physical education (PE) in which 50% of each class included structured physical activity

Please specify the total number of PE minutes per week that your students received over the past year 90 minutes/week. PreK receives an extra 45 minutes in addition to the 90 minutes every other week.

At least 50% of our students' annual physical education takes place outdoors.

Health measures are integrated into assessment.

At least 50% of our students have participated in the EPA's Sunwise (or equivalent program).

We advise parents to apply sunblock to their children. It is in our Family Handbook and we send out reminders via Constant Contact in the spring and summer.

Food purchased by our school is locally grown, locally processed, and unprocessed from growers engaged in sustainable agriculture practice as defined in the Healthy Schools Act.

Percentage: 15% - 20 % Type: Locally grown and locally processed.

11B. Describe the type of outdoor education, exercise and recreation available. (50 word max)

Students receive 120 minutes of recess and 90 minutes of PE per week. Two outdoor classrooms and an observation deck are in the nature center. The aftercare program (at least 80% of our students are enrolled) offers martial arts, soccer, lacrosse, Girls on the Run, tennis and Garden Club.

12B. Describe any other efforts to improve nutrition and fitness, highlighting innovative or unique practices and partnerships. (50 word max) Yu Ying has a Physical Activity for Youth grant from OSSE. With this grant, we have established a Wellness Advisory Board made up of students, staff and parents. The Board plans activities to promote nutrition and wellness. Some activities include planting days, the school dance and a Spring Fun Day. Yu Ying employs a School Garden Teacher who facilitates garden-based activities during and after the school day.

### **Pillar 3: Effective Environmental and Sustainability Education**

1C. Which practices does your school employ to help ensure effective environmental and sustainability education? Provide specific examples of actions taken for each checked practice, highlighting innovative or unique practices and partnerships.

Environmental and sustainability concepts are integrated throughout the curriculum. Describe (100 words max)

Yu Ying's International Baccalaureate (IB) curriculum integrates these concepts into the classroom. The IB's philosophy is based on world peace and an environmentally sustainable planet. As an IB school we comply with the IB's Global Engage initiative that helps educators find resources to help students engage in global issues like peace, conflict, intercultural understanding and poverty. Furthermore, at each grade level, there is at least one unit of inquiry that has environmental and sustainability concepts within it. One of the whole school concepts is reusing and recycling, so we also recycle in each classroom.

Environmental and sustainability concepts are integrated into assessments. Describe (50 word max)

Yu Ying teaches within units of inquiry – themes upon which lessons are based. Every unit has a formative and summative assessment. So if the environment and sustainability concept is part of a unit, it will be part of an assessment.

Professional development in environmental and sustainability education is provided to teachers. Describe (50 word max)

Third through 5<sup>th</sup> grade teachers will be receiving a training in February to learn about implementing green concepts. PreK will be receiving a Project Learning Tree training on environmental education in

March. In August 2012, 3 teachers attended a “Monarchs in the Classroom” training by the U.S. Forest Service.

- 3C. Describe students’ civic/community engagement projects integrating environment and sustainability topics. (200 word max)

Yu Ying students learn about civic/community engagement projects in and out of the classroom. Parents come in at the beginning of the school year to help the students talk about composting, recycling and food waste in the lunch room and then the students and teachers carry it on throughout the year. Currently, we compost 10 gallons of compostable materials per day and recycle 100% of school lunch containers and milk containers. This year, the second grade students learned about civics in their rights and responsibilities unit. They wrote speeches about the various rights they should have including the right for healthy food and the right to have recess. Last year, the third grade students performed traffic surveys to gather data to prove Yu Ying’s need for a crossing guard. They collected information before, during and after school to gauge traffic patterns. They then staged a protest to demand a crossing guard. The protest was advertised to local government and the ANC. The students also sent follow up letters and they were successful, Yu Ying has a crossing guard this year!

- 4C. Describe your students’ meaningful outdoor learning experiences. (100 word max)

Yu Ying students’ have participated in Garden Club, Science and Scouts class, field trips to the Arboretum and collaborated with Groundwork Anacostia DC to pick up trash along the Anacostia river. Students have engaged in community cleanup or planting days. Last year, many of the Yu Ying Science Fair projects were on sustainability. Yu Ying students participated in the National Bike to School Day 2012. In the spring students will have class in the outdoor classrooms, learn about native plants and other wildlife and collect water samples from the observation deck. Grades PreK through 2<sup>nd</sup> will adopt a raised bed.

- 5C. Describe how outdoor learning is used to teach an array of subjects in contexts, engage the broader community, and develop civic skills. (100 word max)

Sustainability concepts are linked to classroom learning. Students learn about the importance of respecting other living beings to make our world function better. Some classes take walks throughout the campus and nature center. During their “Shapes” unit, Kindergarten took walks outside to find shapes in nature. During their community unit, first grade studied jobs and the different ways people interact in the community. The Garden Club teacher uses the school garden to teach about composting, recycling and sustainable gardening. After grades adopt raised beds, students will make connections to the environment and sustainability while growing vegetables.

- 6C. Describe your partnership(s) to help your school and other schools achieve in the 3 Pillars.

Partner Organization: Earth Day Network Scope of Partnership: Earth Day Network facilitated a \$5000 grant to Yu Ying from Wells Fargo to build an observation deck in the Nature Center. With this deck, teachers can take students to make observations and take water samples from the run-off pond.

Partner Organization: Bike to School Scope of Partnership: National Bike to School Day 2012.

Partner Organization: Project Learning Tree Scope of Partnership: \$3000 grant for nature center development and teacher training.

Partner Organization: Save a Tree Scope of Partnership: Collaborate to inspect and maintain healthy trees on campus.

Partner Organization: Greater DC Cares Scope of Partnership: Volunteers removed invasive species from our back acre on a community planting day. Our COO has met with the coordinators of Greater DC Cares several times to talk about other volunteer opportunities.

Partner Organization: OSSE Scope of Partnership: DC PAY Grant to increase physical activity and wellness at Yu Ying. DC School Garden Grant to establish a school garden.

- 7C. Describe any other ways that your school integrates core environment, sustainability, STEM, green technology and civics into curricula to provide effective environmental and sustainability education, highlighting on innovative or unique practices and partnerships. (Maximum 200 words)

One of the reasons Yu Ying chose the IB Primary Years Program curriculum framework was its focus “on the development of the whole child as an inquirer, both in the classroom and in the world outside.” ([www.ibo.org](http://www.ibo.org)). This open-minded focus allows educators to make innovative real life connections to the classroom. Yu Ying teachers are integrating all of the above environmental concepts into the curriculum. Some examples of this integration include: 1) PreK students are learning that bugs are an important element in the successful functioning of our natural environment and about human actions that can be helpful or harmful to bugs; 2) Yu Ying’s Chief Operating Officer is taking Kindergarten students on nature center walks as part of their journeys unit. The students take a journey to the nature center and learn about storm water management. They look at the installed pipes and discuss waste and the consequences of not having storm water management; 3) Fourth graders are learning about the properties of soil, how rocks and minerals affect an environment and what one can do with that environment as a consequence; and 4) Fifth grade is learning about how industry, urbanization and globalization affect the environment.

- 8C Submit up to 8 photos or up to 3 minutes of video content that capture how the three pillars are implemented at your school.

# Appendix

Outdoor Classroom



Observation Deck in Nature Center



Hoop House and School Garden Raised Beds fall 2012



Yu Ying Science Fair 2012



National Healthy Schools Week 2012



National Bike to School Day 2012

## National Bike to School Day a Success!

posted May 10, 2012 10:52 AM by Bonnie Berry [ updated May 10, 2012 10:52 AM by Portal Webmaster ]

Thank you to all the families that made yesterday's National Bike to School Day a success. Yu Ying had 23 student bikers and several staff! wonderful to see the bike rack full of brightly colored bikes and helmets!

