



2013-2014 Presentation of Nominee to the U.S. Department of Education  
Green Ribbon Schools Program  
The DC Office of the State Superintendent of Education

**Mundo Verde Bilingual Public Charter School**

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**PART I - ELIGIBILITY CERTIFICATION**

**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: [ X ] Charter [ ] Title I [ ] Magnet [ ] Choice

Name of Principal Ms. Kristin Scotchmer

Official School Name Mundo Verde Bilingual

School Mailing Address 3220 16<sup>th</sup> St NW Washington DC 20010

County n/a State School Code Number\* 3065

Telephone (202) 630-8373 Fax (202) 885 - 9972

Web site/URL <http://mundoverdepcos.org/> E-mail [kscotchmer@mundoverdepcos.org](mailto:kscotchmer@mundoverdepcos.org)

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



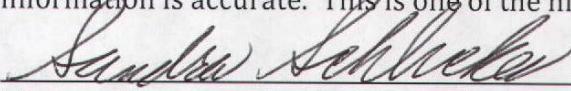
Date February 4, 2013

(Principal's Signature)

Name of Deputy Superintendent\* Dr. Sandra Schlicker  
 (Specify: Ms., Miss, Mrs., Dr., Mr., Other)

District Name\* n/a (Charter) Tel. ( )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.

  
 (Deputy Superintendent's Signature)

Date 2/12/13

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

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Mundo Verde Bilingual School has taken great strides to become one of Washington, DC's greenest schools through:

- A uniquely integrated approach in which sustainability efforts are embedded in academic performance goals for students, school culture goals for students and adults, and organizational performance goals.
- A procurement process that evaluates overall environmental impact, including gathering current baselines and establishing metrics to reduce impact over time.
- 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
  - Expanding Physical Education
  - Developing a Local Wellness Policy team to help shape the school's wellness policy
- A School Garden and natural play area that encourages exploration and environmental education.
- A well-established, comprehensive, and thoughtful Sustainability Curriculum which adopts the *National Education for Sustainability K-12 Student Learning Standards*.
- 60 minutes of outdoor physical activity for every student every day.

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

### **Instructions to Nominating Authority**

The Nominating Authority must document the district's high achievement in each of the three ED-GRS Pillars and nine Elements. Please attach documentation in each Pillar and Element. This may be the Authority's application based on the Framework and sample application or a committee's written evaluation of a school in each Pillar and Element.

### **Nominating Authority's Certifications**

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

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

Name of Nominating Agency: Office of the State Superintendent of Education

Name of Nominating Authority Dr Sandra Schlicker  
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

I have reviewed the information in this application and certify to the best of my knowledge that the district 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

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**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

Mundo Verde is Washington, DC's first public charter school explicitly dedicated to being a "green" school. Our mission is *to foster high levels of academic achievement among a diverse group of students by preparing them to be successful and compassionate global stewards of their communities.*

We first opened our doors in August 2011 in the Dupont Circle neighborhood to students in preschool through kindergarten, and every year we will add a grade level up to 8th grade. We moved to our current location in Mount Pleasant in anticipation of school year 2012-2013. Though we are only in our second year, we have already made great progress in achieving our sustainability mission.

Together the words **mundo** and **verde** describe a society joined across differences of language, culture and national origin to sustain our planet for generations to come. Mundo Verde marries the teaching of enhanced language capabilities and of the broader mindsets needed to act to reduce environmental impact and improve health and wellness outcomes. We strive to help develop a nation of changemakers.

Mundo Verde sees the three pillars of the Green Ribbon application not as separate, but interconnected endeavors in sustainability. For example, a garden serves a purpose as an important space for habitat and water conservation (Pillar I), improved nutrition as it supports student cooking classes (Pillar II), and an outdoor classroom for environmental education (Pillar III). Sustainability guides all of our efforts: it is embedded in our academic performance goals for students, our Habits of Mind (school culture goals) for students and adults, and our organizational performance goals.

Though we have not been long in our Mount Pleasant location, we have made greening our infrastructure and operations a priority. A backyard parking lot was converted into play space built with recycled deck material. We planted a raised bed vegetable garden in the front-yard. We replaced infrastructure left by the building's previous tenant to make the building more energy and water efficient. Our purchased materials (such as paper, furniture, cleaning agents) are always certified as 100% recycled, sustainably made, and non-toxic.

The well-being of our students and staff is a priority for us. We avoid purchasing furniture that may contain allergens. Students enjoy plenty of activity through our yoga and physical education classes, and enjoy an hour of outdoor time each day. We renovated the building to put in clerestory windows that allow for more natural sunlight. On the nutrition side, we are working with Revolution Foods to provide healthy school meals with plenty of fruits and vegetables. Students also take cooking classes, in which they are taught to make recipes using many fresh vegetables and herbs from our own school garden!

Teachers regularly receive professional development on implementing sustainability curricula - which will grow and become more elaborate as our school expands. The structure of the Expeditionary Learning curriculum model - used by all Mundo Verde teachers - is ideal for involving students in school-wide sustainability endeavors. Students take on long-term projects called "expeditions," which this year include Waste (in which the students measure their trash output) and Composting (classrooms have set up vermiculture stations). First grade students are told that they will become compost 'experts' and that they are responsible for teaching the rest of the school community about composting. Finally, Mundo Verde's Habits of Mind (the behaviors, virtues, and characteristics that all members of the school community strive to practice and embody each day) explicitly include stewardship as well as other values that support a commitment to sustainability. Thus, students learn environmental stewardship skills, knowledge, and values as they take part in the greening of school operations.

Mundo Verde has also been active in involving the external community in sustainability projects. We have partnered with City Blossoms and DC Greens to get help with building and maintaining the school garden. We are playing a lead role in a Friends of the Park partnership to green a public playground on 16th Street. The U.S. Forest Service has also been instrumental in helping us with our nature-related curriculum.

Finally, Mundo Verde's belief is that bilingualism is an essential tool for change that gives people a sense of identity, culture, place, and purpose. At Mundo Verde, bilingual education better prepares students to succeed and take on responsibility for tomorrow's world. In linking global stewardship to bilingual education we foster the sense that this work is critical for all communities. We stress the importance of making our sustainability efforts linguistically and culturally relevant for all of our families, particularly our low-income families; equitable; and accessible to all, overcoming whatever digital divide or other barriers that may exist. We strive to nurture in students the capacity to innovate, integrate and build partnerships across diverse communities.

Where Mundo Verde has not yet checked every box as "Yes" on the Green Ribbon application, we can categorically say that we are working toward achieving each target. As a new school in a stage of rapid growth, there is much potential to "get it right" from the start. Mundo Verde is constantly in motion, creating green teams composed of teacher and non-teacher staff, and seeking external support to realize our vision of creating the greenest and healthiest school possible.

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

Program(s) and level(s) achieved:

- Mundo Verde Bilingual PCS aligns its school-wide curriculum with the U.S. Partnership for Education for Sustainability National Education for Sustainability K-12 Student Learning Standards ([http://s3.amazonaws.com/usp\\_site\\_uploads/resources/123/USP\\_EFS\\_standards\\_V3\\_10\\_09.pdf](http://s3.amazonaws.com/usp_site_uploads/resources/123/USP_EFS_standards_V3_10_09.pdf))
- We annually assess our practice through Australia's Sustainable Schools Initiative materials, including Sustainability Education: A Guide to Becoming a Sustainable School

(<http://www.decd.sa.gov.au/efs/pages/default/27348/?reFlag=1>; [http://www.decd.sa.gov.au/efs/files/pages/EfS\\_guide\\_Interactive.pdf](http://www.decd.sa.gov.au/efs/files/pages/EfS_guide_Interactive.pdf)) On an implementation scale of “starting,” “establishing,” “achieving,” and “excelling,” Mundo Verde is ranked *at least* “starting” to implement on all 12 elements: “Achieving” on 3 elements; “Establishing” on 7 elements; “Starting” on 2 elements. The completed evaluation rubric is included in the Documentation Appendix.

- Mundo Verde Bilingual PCS is a member of the National Green Charter Schools Network (<http://www.greencharterschools.org/>) and is using the Network’s Green Print for Becoming a Green School to guide its current environmental and sustainability practice (<http://www.greenschoolsnationalnetwork.org/green-print>).
- To abide by the D.C. Healthy Schools Act, we track a number of health and wellness measures, including provision of free breakfast, local sourcing of fruits and vegetables, and the nutritional value of our meals.

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

Yes.

### Award(s) and year(s):

- New Leaders for New Schools’ Roberts Award for School Innovation, *Finalist 2013*
- Action for Healthy Kids *Game On! The Ultimate Wellness Challenge*, *Grant Recipient 2013*
- 2013 Our City Film Festival, *Best Short Student Documentary* for the Spanish language film *Vuela, Vuela Mariposa* focusing on monarch butterflies and habitat preservation
- Ford Motor Company Community Green Grant, *Finalist & Winner 2012*
- United Way of the National Capital Area/General Mills Foundation & OSSE Nutrition Education Program, *Grant Recipient 2012*
- OSSE Facilities Modernization & Expansion, *Grant Recipient 2012*
- DC Healthy Schools Act Hero Award, *Honorable Mention 2012*
- OSSE DC School Garden Program, *Grant Recipient 2012*
- USDA Team Nutrition School

## **Pillar 1: Reduced Environmental Impact and Costs**

*From its inception as a school, Mundo Verde has been dedicated to reducing its environmental impact. The school not only teaches but acts according to its sustainability mission and values, operating in an environmentally, socially, and financially sustainable manner. We are in the process of developing the Mundo Verde Sustainability Platform, a framework for our sustainability metrics, which we will use to robustly track and report on our progress to our stakeholders. Our long-term goal is for Mundo Verde to have a net positive environmental impact; in the meantime we will use the Sustainability Platform to ensure annual progress toward that goal.*

*Mundo Verde revitalized its approximately 25,000 square feet of indoor and 5,000 square feet of outdoor space before opening its doors to students in late August of 2012. Improvements were made in August of 2012 to (1) improve the location’s environmental health for the school community, (2) mitigate the environmental impact of schools occupying this location, and 3) align the space with best practices for early childhood education. With renovations to improve lighting, replace aged carpets that were not appropriate for use in an early childhood development setting, improve impact on wellness, and reduce its environmental footprint, our facilities are now suitable for our early childhood development and elementary school success of our students. Below are the specific answers that provide a snapshot of our current status.*

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### **Element 1A: Energy**

#### **1A. Please provide the past 12 months of gas and electricity usage.**

The table below was provided in our August utilities bill and charts the energy usage from September 2011 through September 2012 for almost our entire building, which we share with Creative Minds International Public Charter School. Mundo Verde moved into the building in August 2012. We are looking into why our energy usage was higher August-September 2012 than the previous tenants in August-September 2011. We suspect that it was because the process of moving into the building required more energy and water usage than normal, since the building may have been open longer on a daily basis and on weekends as well.

### **Energy Usage History**

	Sep 11*	Oct 11*	Nov 11	Dec 11*	Jan 12*	Feb 12*	Mar 12	Apr 12	May 12	Jun 12	Jul 12	Aug 12	Sep 12
<b>DAYS</b>	29	32	30	31	34	28	30	28	31	32	27	33	29
<b>KWH</b>	51040	42880	42880	34880	39840	34580	40000	36640	44840	53800	45600	59680	51840
<b>ON PK</b>	15520	15520	15520	10880	12480	10880	14880	12320	14080	18560	14720	17920	17120
<b>INT PK</b>	11840	11440	11440	8000	9120	7840	12000	9600	10880	14400	11620	13760	12320
<b>OFF PK</b>	23680	15920	15920	16000	18240	15840	13120	14720	19680	20840	19360	28000	22400
<b>KW-MAX</b>	129.6	145.6	145.6	89.6	102.4	89.6	145.6	115.2	112.0	147.2	150.4	148.8	148.8
<b>KW-ON PK</b>	129.6	145.6	145.6	89.6	102.4	89.6	145.6	115.2	110.4	147.2	147.2	148.8	148.8

#### *Can your school demonstrate a reduction in Greenhouse Gas Emissions:*

No, however we look forward to seeing our energy data for the fall and winter months to further benchmark our progress. We have worked to reduce our Greenhouse Gas Emissions from last year's tenant by installing ENERGY STAR qualified and super-efficient LED lighting, increasing natural light in classrooms with the installation of a clerestory window and 5 new classroom doors with glass windows, and installing motion-sensor lights in all classrooms. We are communicating with John Andreoni at DC Sustainable Energy Utility (DCSEU) to work through the process of getting a separate energy meter from Creative Minds International PCS, with whom we share a building and approximately 4,500 square feet of our current facilities. DCSEU is also planning a site visit and energy audit of Mundo Verde, to explore ways to reduce our greenhouse gas emissions.

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

No; however, all major appliances and machines on site (refrigerators, food warmers, copiers) as well as super-efficient LED lighting that we have purchased are ENERGY STAR certified or are aligned with Canadian Standards Associations energy certification.

Mundo Verde is also registered with the EPA as an ENERGY STAR Partner. As a Partner we have committed to:

- Measure, track, and benchmark energy performance.
- Develop and implement a plan to improve energy performance, adopting the ENERGY STAR strategy.
- Educate staff and the public about our partnership and achievements with ENERGY STAR.

We are also scheduling an audit with the DC Sustainable Energy Utility, to better understand how to make Mundo Verde facilities more energy efficient.

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

Yes. Since we have moved into our current facilities, we have installed motion sensor lights, LED lighting, new doors with clear glass windows, and a clerestory window that were *not* in place prior to our occupancy. These measures increase natural light in classrooms, decreasing energy consumption in the building and the school's overall environmental impact and carbon footprint. As this is our first year in a new building, we have not been able to calculate our initial energy baseline.

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

*On-site renewable energy generation:* 0%

*Purchased renewable energy:* 0%

The parent association at Mundo Verde is taking the lead on a partnership with the green energy company Clean Currents. Our organized school parent association is planning to pursue Clean Currents' Green Neighborhood Challenge, an educational campaign to encourage the switch to wind and solar energy use at home. By participating in the Green Neighborhood Challenge, Mundo Verde will not only fulfill its mission to promote sustainability in the wider community, but we will also receive a donation from Clean Currents to be used on a green energy project of our choosing.

In addition, the Mundo Verde administration is exploring the possibility of purchasing wind energy, and has recently received an indicative pricing proposal from Clean Currents.

*Does your school participate in USDA Fuel for Schools, DOE Wind for Schools or other federal or state school energy programs?*

No.

5A. What year was your school originally constructed?

1964.

*What is the total building area?* Approximately 25,000 square feet.

6A. Has your school constructed or renovated building(s) in the past ten years? Yes.

*For new building(s):*

Total constructed area: **N/A**

Does this building meet green building standard? **N/A**

Certification and level: **N/A**

*For renovated building(s):*

Total renovated area: **25,000 square feet.**

Does this building meet green building standards: **No.**

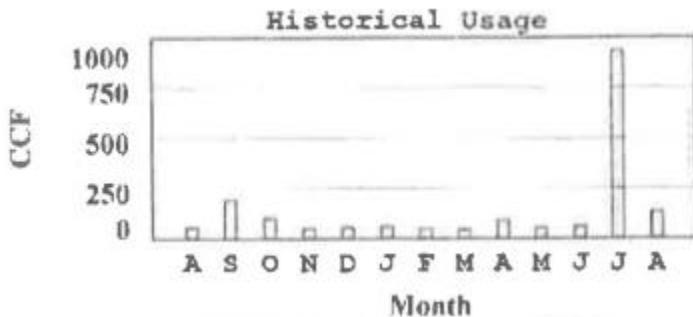
Certification and level: **N/A**

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## Element 2A: Water and Grounds

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

The graph below was provided in our August Utilities bill, the most recent utilities bill we have received. The only data that reflects our usage is the last bar for August 2012. We did not move into our current location until August 2012, therefore we can not account for the previous tenant's extremely high water usage in July 2012. As we receive more utility bills, we will be able to track our water usage from this initial baseline.



This year when we moved into our new school building we installed new high-efficiency toilets and low flow faucets that meet EPA's WaterSense standards, therefore we predict that our water usage will be lower than that of the previous tenant.

8A. What % of your landscaping is considered water-efficient and/or regionally appropriate?

An audit by the Watershed Protection Division of the District Department of the Environment found that 100% of the front-yard is green space planted with regionally appropriate pollinator plants and a large tree. It was also determined in this audit that about 30% of the backyard space is deemed water-efficient and regionally appropriate, due to the presence of tree canopy and surrounding regionally appropriate plants.

**9A. Describe any alternate water sources used for irrigation.**

We are looking to install rain catchment barrels. Mundo Verde does not have external downspouts that could collect water from the roof.

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

Our communications with Patricia Doan at the District Department of the Environment has led to our decision to apply to the RiverSmart School program in school year 2013-2014 in order to implement the program for the following year (2014-2015). We believe we will be a good RiverSmart School candidate because in addition to greening the school grounds, the program has a strong educational component that could be interwoven into our sustainability curriculum.

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

In the backyard we have replaced 11 underused impermeable parking spaces and converted it into a roughly 1,000 square foot outdoor permeable play space that includes patches of native grasses and container plants. In our front-yard we constructed raised beds planted with vegetables. The ground is covered in recycled wood-chips and organic mulch.

**11A. Describe the program you have in place to control lead in drinking water.**

We have three industrial-sized water dispensers on-site, each equipped with filtration systems that eliminate lead from our drinking water.

**12A. What % of the school grounds are devoted to ecologically beneficial uses? Describe.**

100% of our front space (our garden, which is entirely green), was determined by the Fisheries and Wildlife Division of the DC Department of the Environment as ecologically beneficial. When the backyard is considered as well, 25% of our school grounds were deemed by a wildlife expert as ecologically beneficial. We already implemented one of the expert's suggestions for increasing this percentage: this winter students planted bulbs along a steep part of our school grounds to reduce erosion and runoff. In the spring we will plant more native pollinator plants and install bird and bat houses in the surrounding trees.

### **Element 3A: Waste**

**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.**

Numbers were taken from our October Trash and Recycling invoice. We work with Tenleytown Trash, which is CBE (certified business enterprise) certified as a small DC-based business that contributes to local job creation and a stronger local economy.

In addition, our first grade students measured the trash and recycling of all classrooms on November 29th, 2012, as part of their learning expedition. We also use their numbers as a benchmark, which were measured in pounds. See the attachments section of our application for photos of the first grade weighing and calculating Mundo Verde's trash.

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

**30 cubic yards municipal solid waste per month.** (Calculations: 2 cubic yards dumpster size x 20 collections per month x 75% full = 30 cubic yards.)

The first grade calculated that our eleven classrooms created 70 lbs of trash on November 29th. Over a month, this would come to just **over 1,500 lbs of trash per month generated by the classrooms** (because lunch happens

in the classrooms, this includes food waste). Trash created by the office and other venues in the school are not included. See note below about school-wide composting beginning in February 2013, this step will cut our overall waste in half.

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

**68.5 cubic yards recycling per month.** (Calculations: 3 x 96 gallon recycling bins = 288 gallons x 20 collections per month = 5,760 gallons. 5,760 gallons/202 gallons per cubic yards per = 28.5 cubic yards per month. 2 cubic yards cardboard x 20 = 40 cubic yards per month. 28.5 + 40 = 68.5 cubic yards per month.)

The first grade calculated that the classrooms generated 15.2 lbs of recycling on November 29th. This comes to about **335 lbs of recycling per month.** Recycling created by the office and other venues in the school are not included.

*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 cubic yard per month.** First graders compost a portion of their food waste through vermiculture systems. An audit from last year found that each class in the school generates 6-10 lbs of food waste every day, so we estimate that currently about 3-5 lbs are being composted in these classrooms.

By the beginning of February we will have a school-wide compost collection system in place, and therefore this number will increase dramatically. The collector, Fat Worm Compost, has estimated that half of our waste is organic compostable waste, therefore we expect to be composting **15 cubic yards per month by February** (which is half of 30 cubic yards, our current trash amount).

$$\text{Recycling Rate} = ((B + C) \div (A + B + C) \times 100): (28.5 + 0) / (30 + 28.5 + 0) \times 100 =$$

**48.7%** of Mundo Verde's trash is diverted from the landfill and incineration. Once our compost collection starts in February with Fat Worm, LLC, this percentage will increase dramatically to almost **70%.** Mundo Verde is also working with the DC Office of Recycling to increase recycling rates by educating teachers and staff who will pass on the knowledge to students.

*Monthly waste generated per person = (A/number of students and staff):*

**0.10 cubic yards per person per month.** (Calculations: 30 cubic yards/280 staff and students = 0.10 cubic yards per person per month.)

At Mundo Verde we take several additional steps to further reduce our waste:

- We have contracted with Fat Worm Compost to set-up a school-wide composting system.
- Mundo Verde has signed the Alice Ferguson Trash-Free Schools Pledge, committing to establish a Green Team, set sustainability goals, and reduce waste through an organized process. We were recently highlighted as a new signer in their newsletter.
- Our meals vendor, Revolution Foods, uses recyclable packaging, provides washable/reusable pans & serving utensils, and provides biodegradable and compostable plates. In their own culinary center in Hyattsville, MD, they recycle and compost almost all kitchen waste.
- A sustainability audit last year measured lunch waste production, and found that excess food was being discarded because of big portion sizes. This year, Mundo Verde serves family-style meals, which reduce waste, encourage portion control, and focus on healthful consumption of core meal components.
- Our kitchen is stocked with reusable utensils, bowls, plates, cups, and mugs for use in cooking classes and by school staff, thus cutting down on waste from disposable products.
- We donate excess school meal food to the Shrine of the Sacred Heart Church homeless program.
- We provide only reusable/washable cups at the water dispensers. Assuming that every staff member uses a cup a day, this is fifty paper cups saved from becoming waste.
- Our billing system and student data system are online, and we use an electronic approval process, eliminating the need for paper-based records and paper-based approval procedures.

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?

- 100% of paper used in printers and copiers is 100% process-chlorine-free and 100% recycled using post-consumer material, certified by the Forest Stewardship Council and endorsed by the Rainforest Alliance.
- Approximately 90% of all paper purchased for office/classroom use is 100% process-chlorine-free and 100% recycled using post-consumer material, certified by the Forest Stewardship Council and endorsed by the Rainforest Alliance.

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

We do not generate any hazardous waste at Mundo Verde.

16A. Which green cleaning custodial standard is used?

Our custodial company, PMM, is a GS-42 certified company with all processes and products meeting Green Seal standards.

What percentage of all products is certified?

At least 99% of all cleaning products in use by cost are third party certified green cleaning products.

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?

Approximately 55% of students walk, bike, bus, or use another form of public transportation to get to and from the school.

How is this data calculated?

Teachers conducted student surveys in each of their classes as part of the school's regular sustainability audit.

18A. Has your school implemented:

*Designated carpool parking stalls.*

No, but in order to encourage staff and the school community to use public transportation, bike, or carpool, Mundo Verde does not provide parking on-site. We also have a bike rack directly in front of the school.

*A well-publicized no idling policy that applies to all vehicles (including school buses).*

Yes. In order to eliminate idling completely from our school grounds, we have a "park and walk in" drop-off and pick-up policy. All drivers must park their cars and walk their children into the school.

*Vehicle loading/unloading areas are at least 25 feet from building air intakes, doors, and windows.*

Yes.

*Safe Pedestrian Routes to school or Safe Routes to School.*

Yes, Mundo Verde recently became a member of Safe Routes to School. Parents have already coordinated walking and biking groups to school.

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

- All furniture purchased is either made out of FSC certified wood (50% of our purchased furniture) or 100% recycled material (approximately 50% of our purchased furniture).
- 100% of all computers purchased are EPEAT Gold certified products.

- Renovations include replacing aged, unsanitary carpets with 100% natural Marmoleum Composite Tile (MCT) need only be cleaned with water, which supports our limited use of chemicals and creates no chemical off-gassing, which is the evaporation of synthetic compounds.
- We observe conscientious consumption of electricity with the recent installation of motion sensor light switches in all classrooms and ENERGY STAR qualified, super-efficient LED lighting. This, along with the installation of clerestory windows for more natural light, increases the amount and quality of light in the learning environment. New window shades create no chemical off-gassing.

## Pillar 2: Improve the health and wellness of students and staff

*Mundo Verde's sustainability efforts, with an explicit focus on health and wellness enrichment, are linguistically and culturally relevant for the whole school community; equitable; and accessible to all, overcoming whatever digital divide or other barriers that may exist. Mundo Verde empowers all its students and families to participate as key stakeholders in the local and global sustainability debate, the outcome of which will disproportionately affect low income communities. An intentionally diverse school working to bring families together across differences, Mundo Verde strives to make sure that its low income and limited English families have the opportunity to fully shape and benefit from the school's mission.*

*Health and environment are significant factors beyond the classroom that put Mundo Verde's low-income students particularly at risk for poor educational outcomes. Low income urban families, including those with limited English, are at great risk for hunger, undernourishment, and nutrition-fueled health problems. These families are also likely to bear the burden of environmental degradation, while unlikely to benefit from greening efforts, whether they be fresh fruits and vegetables, organic and/or non-toxic products, or recycling and composting.*

*Our health and wellness enrichment efforts are aligned to our sustainability and equity mission and directly accelerate the growth and learning of our students. Fitness and physical challenge improve not only student health but also classroom behavior; cognitive, social, and motor skill development; character, perseverance, and collaboration. Nutrition also supports students' brain functions, cognition, learning and social behaviors. Learning opportunities for families and the community at large both reinforce lessons for students at home and extend the impact beyond the walls of the school.*

*Mundo Verde's evidence-based wellness curriculum is implemented during the school day, extended day, and extended year summer programs. The curriculum consists of developmentally appropriate, and participatory garden- and food-centered activities, outdoor play and learning, and student creation of authentic products such as bilingual recipe cards and other materials that support healthy eating and fitness beyond the classroom. To ground learning in real world purpose, Mundo Verde collaborates with horticulturists, park rangers, nutritionists, and other experts. Through self-grown and self-prepared foods, students explore the diversity of foods and cultures, and build community. By learning and maintaining recycling and composting practices, students reduce their environmental impact at home and school.*

*With regards to facilities, Mundo Verde has improved the health impact of its current location by revitalizing the approximately 25,000 square feet of indoor and 5,000 square feet of outdoor space. As noted previously, improvements were made in August of 2012 to improve the location's environmental health for the school community, including improved lighting and replacement of aged carpets with natural marmoleum tile.*

*Mundo Verde is committed to "greening as we go," that is, to making measurable progress on an annual basis to reduce the environmental impact and increase the health impact of our school. An important part of our mission is to foster sustainable environments that will benefit those to come. We are confident that the long lasting improvements Mundo Verde has made to its current site will continue to benefit the health and wellness of students and staff who occupy these facilities annually for at least ten years.*

## **Element 2A: Environmental Health**

### **1B. What is the volume of your annual pesticide use (gal/student/year)? Describe efforts to reduce use:**

Our need for pest management is minimal, and we use no pesticides in our current location. Our on-site garden calls for manual removal of bugs from plants and vegetables. We will continue to assess pest management as part of our regular whole-school evaluation of health impact.

### **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.*

Smoking at Mundo Verde is prohibited in the entire building, outside the entrance, and in vehicles parked near school premises (i.e. loading dock). Mundo Verde does not have public school buses. This policy applies equally to all employees, students, parents, and visitors. Mundo Verde is committed to providing a safe and healthful work environment and to modeling safe behavior for students.

- Our school has identified and properly removed sources of elemental mercury and prohibits its purchase and use in the school.*
- Our school has taken steps to protect occupants from carbon monoxide (CO).*

Mundo Verde does not use fuel burning appliances, and we use carbon monoxide detectors to monitor levels of carbon monoxide. We currently have 3 carbon monoxide detectors in our school building, located in the basement, the 1st floor, and the 2nd floor.

- 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.*

Mundo Verde has recently tested for radon in all frequently occupied rooms at or below ground level. Tests were administered in 12 different frequently-occupied ground level spaces (classrooms, art room, common meeting area), and all rooms tested below 4 pCi/L with a range of <0.7 - 1.4 pCi/L. Keith Keemer, an environmental specialist and indoor air quality expert with the District Department of the Environment performed an audit of our facilities and advised the implementation of this radon testing. He has also provided follow-up steps for us to take based on the test results, as well as resources to explore in order to continue to improve indoor air quality at our school.

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

Mundo Verde does not have wood playground structures or other structures that contain chromated copper arsenate. Our recreation area constructed in August-September 2012 was built using recycled deck material.

### **3B. Describe how your school manages chemicals routinely used in the school to minimize student and staff exposure.**

Mundo Verde has very few chemicals on site. We use only paint and other products that have no or low VOC (volatile organic compound) content. At least 99% of all cleaning products used on site and by the school's custodial contractor, PMM, are environmentally friendly and Green Seal certified.

Both Mundo Verde and PMM use products that are biodegradable, composed of plant-based materials rather than petroleum, and have a low toxicity and low VOC content. In addition to cleaning during the day, to minimize student and staff exposure, the majority of on-site cleaning and janitorial services of school facilities take place during evening hours after the regular school day has ended. When not in use, cleaning products are kept in storage inaccessible to students and children.

### **4B. Describe actions your school takes to prevent exposure to asthma triggers in and around the school.**

Our policies are aligned with the National Asthma Education and Prevention Program's Asthma-Friendly Schools Guidelines. All students with asthma have updated asthma action plans on file. The school ensures that staff are

trained and certified to administer medication to those students. Mundo Verde consciously chooses products and practices that reduce asthma triggers.

We take the following steps to reduce asthma triggers:

- replacing aged carpet with natural marmoleum tile that does not produce off-gassing;
- purchasing aluminum or wood furniture to reduce the presence of allergens;
- eliminating use of VOC paint;
- limiting use of chalk to lower dust;
- using Green Seal certified cleaning products; and
- implementing policies that prohibit smoking and do not permit classroom pets.

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

The HVAC system throughout the school is adequate and its maintenance is the responsibility of the landlord. We make maintenance requests as needed to ensure clean-up and removal of mold.

**6B. Our school has installed local exhaust systems for major airborne contaminant sources.**

We have not identified major airborne contaminant sources in our current location. Therefore, it has not been necessary to install local exhaust systems.

**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.**

The maintenance of the building's HVAC system is the responsibility of the landlord. The building's HVAC maintenance is contracted out to American Mechanical Services (AMS) who performs regular inspections of the building's ventilation system and units. AMS performed a start-of-school year assessment in the summer and again as the season has transitioned to ensure proper heating for the onset of cold weather months. Mundo Verde operations staff submits additional maintenance requests as needed.

**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.**

The HVAC system is inspected regularly for ventilation. Improvements in August 2012 directly improved air quality and ventilation: replacement of unsanitary aged carpet with 100% natural Marmoleum Composite Tile; use of no VOC paint; and use of adhesives and sealers that comply with South Coast Air Quality Management District Rules.

**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.**

- Mundo Verde can check "Yes" to all applicable items on EPA's IAQ "Walk through Checklist."
- Newly installed 100% natural floor tiles have no off-gassing and are cleaned with water, which limits the need for chemicals.
- Our newly installed clerestory windows increase the amount and quality of light in the learning environment. New window shades create no chemical off-gassing.
- Mundo Verde performs regular whole-school evaluation of health impact assessments, wherein both staff and students participate actively in data collection and benchmarking.
- 55% of students travel to school by bike, public transportation, carpooling, or walking, which not only encourages healthy modes of transport, but may also reduce exposure to emissions near the school.
- Mundo Verde uses family-style meals, encouraging portion control, and healthful consumption of core meal components, as part of the National School Lunch Program and School Breakfast Program.

## **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.

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

We are currently preparing an application for the USDA HealthierUS School Challenge award. Given the quality of our nutrition education, physical education, and food standards we implement, we aim to qualify for the GOLD Award of Distinction.

Our school participates in the following Farm to School programs:

- ✓ Strawberry and Salad Greens; most recent year: 2012
- ✓ DC Farm to School Week; most recent year: 2011
- ✓ Growing Healthy Schools Week 2012

Please describe how you participated in these weeks:

- For DC Farm to School week October 3-7, 2011, Mundo Verde was one of over 45 schools to coordinate hands-on food and farm activities for students, and one of more than 200 schools to feature seasonal, local produce during school meals.
- On May 23rd, 2012, Mundo Verde participated in the 3rd annual Strawberry and Salad Greens spring harvest celebration. Mundo Verde was one of over 150 D.C. schools that incorporated fresh, locally-grown strawberries and salad greens in the day's school lunches, in collaboration with vendor, Revolution Foods.
- Mundo Verde was also one of 50 schools to host a "Where Food Comes From" informative table display of plants, posters, and visuals about sources of healthy food. Students from Mundo Verde also visited the Girard Children's Community Garden with City Blossoms to jumpstart its own school garden project, Sembrando Semillas (Planting Seeds for a Healthy Future).
- Mundo Verde's Garden Build Day was scheduled right around the time of Growing Healthy Schools Week, October 15-22, 2012. On the Garden Build Day, approximately 75 family volunteers, community partners, and other stakeholders helped transform outdoor space into an edible garden with raised beds for vegetables and herbs.
- During Growing Healthy Schools Week, Mundo Verde students were introduced to the new garden and began basic garden maintenance.

- ✓ 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)

Mundo Verde received Healthy Schools Act lunch meal reimbursement for 2012 and 2013. Our menus currently meet the HUSSC gold level criteria. We are currently preparing an application for the USDA HealthierUS School Challenge award. Given the quality of our nutrition education, physical education, and food standards we implement, we aim to qualify for the GOLD Award of Distinction.

- ✓ Our school garden supplies food as taste tests to our students through a cooking or garden class or to the community.

Students have weekly cooking classes that incorporate produce grown in the school garden on-site. Students have made snacks such as green smoothies with spinach from the garden and "Superhero Salad" featuring apples and kale, which is also grown at school. Recently, students made tabbouleh garnished with school garden-grown thyme and parsley. During each class the children participate in preparing a healthy recipe, discuss aspects of healthy eating using the MyPlate curriculum, and mark off on a chart whether they tasted the food and whether they liked it.

- ✓ Our students spent age appropriate physical education (PE) in which 50% of each class includes structured physical activity. Please specify the total number of PE minutes per week that your students received over the past year:

150 minutes/week. In the 2011-2012 school year, Mundo Verde students engaged in structured yoga classes with a certified children's yoga instructor (contracted). Thus far in the 2012-2013 school year, students engage in yoga classes once a week (60 minutes) in addition to structured physical education with a certified instructor twice a week (45 minutes each, for a total of 90 minutes per week of PE). To maintain the wellness program, funds are dedicated annually so that yoga and physical education may be offered by in-house instructors. The physical education program is also funded in part by a grant from the United Way of the National Capital Area/General Mills Foundation supported by the OSSE.

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

Structured physical education classes are implemented twice a week and, as often as possible (weather permitting), take place outdoors. In addition, students engage in 60 minutes of outdoor physical play each day.

- ✓ Health measures are integrated into assessment.

Mundo Verde incorporates National Standards for Physical Education (NASPE) from the American Alliance for Health into its physical education curriculum. In addition to participating regularly in physical activity, these standards ensure that students will develop competency in motor skills and movement patterns, and demonstrate understanding of movement concepts. Mundo Verde's nutrition education is guided by USDA's Team Nutrition initiative and the Go With the Whole Grain program, which assess understanding of healthful foods by students' ability to identify healthy, unprocessed foods, as well as prepare healthy meals.

(not yet) At least 50% of our students have participated in the EPA's Sunwise (or equivalent) program.

Mundo Verde has recently registered to participate in the EPA's Sunwise program. We anticipate incorporating program activities in our existing curriculum using both Spanish and English materials offered by Sunwise. Staff will use Sunwise programming prior to outdoor activities (students have at least one hour of outdoor time each day), as well as frame future units of study around sun safety.

- ✓ 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.

100% of food procured from our healthy meals vendor, Revolution Foods, is locally processed in their culinary center, located in Hyattsville, Maryland. 100% of produce (fruits, specifically) purchased from Revolution Foods is unprocessed, as Mundo Verde will only serve fresh, whole fruits, and Revolution Foods offers local fruit daily. While our vendor features organic and sustainable ingredients from small local farms when possible, obtaining data from Revolution Foods and a breakdown of specific percentages of all of their food that is locally grown and unprocessed, has presented itself as a challenge. With regards to cooking classes, all of Mundo Verde's food tastings use locally grown produce and herbs (right from the school's garden).

#### **11B. Describe the type of outdoor education, exercise and recreation available.**

Mundo Verde students engage in 60 minutes of outdoor physical play each day. We provide daily unstructured play at recess, in addition to structured opportunities, such as organized games/activities and dance, yoga, neighborhood walks and movement activities. With the installation of an edible school garden, students have dedicated weekly garden time.

As part of the expeditionary learning model of curriculum, students participate in hands-on projects that spark curiosity, promote active learning, encourage teamwork, build character, and capitalize on children's innate spirit of adventure. They conduct regular fieldwork--at parks and farms, as well as at indoor sites such as museums and recycling facilities--in which they integrate their knowledge with real-world application. In addition to these off-site outdoor education opportunities, students travel to the city's Rock Creek Park on a monthly basis to foster

school community. During these excursions, students participate in team-building activities focused on nurturing skills of collaboration and concepts such as solidarity, stewardship, and inquiry.

**12B. Describe any other efforts to improve nutrition and fitness, highlighting innovative or unique practices and partnerships.**

Mundo Verde received funds from the OSSE to build raised garden beds for vegetables and herbs at our current location. Food grown in the gardens is used in nutrition/cooking classes when possible. The nutrition program received funds from United Way & the General Mills Foundation, supported by the OSSE, to increase wellness instruction for the current school year, including increased structured physical education, and additional yoga classes. The school is also in the process of establishing its School Wellness Council of teachers, parents, & stakeholders to help develop, implement & evaluate the impact of the school wellness policy. As part of its policy, Mundo Verde prohibits requiring or withholding physical activity as punishment. Mundo Verde also prohibits the use of food as a reward. In addition, Mundo Verde is a registered Fuel Up to Play 60 school, whose programming helps to enrich physical fitness, health and wellness for students and families.

Mundo Verde was awarded a grant from Action for Healthy Kids to fund a series of nutrition and fitness events geared towards engaging families in the wellness program in a more holistic and robust way. The School Wellness Council and active parent association have planned the following events for the spring term of 2013:

- Nutrition education workshop for parents with presentation by Elizabeth Shashaty, a Mundo Verde parent who is a pediatrician and possibly Brittany Oberdorff, a Registered Dietician who is Mundo Verde's advisor from the Office of the State Superintendent of Education.
- Cooking demonstration for parents by Tiffany Griffin (local "veg-centric" cook) on appealing ways to prepare fruits and vegetables.
- Healthy potluck and bilingual recipe exchange for families.
- "El Mercado de Mundo Verde"--a parent association healthy fundraiser to celebrate Earth Day and create awareness for Mundo Verde's mission as DC's first green public charter school; the Mercado will include local farmers selling produce and other healthy treats, eco-friendly vendors/artisans selling their goods, an upscale rummage sale/exchange, and Latin inspired music for dancing.
- School-wide Field Day to which families will be invited; all children will spend the day at a park rotating amongst stations that offer games and fitness activities, such as relay races.
- Family 3K/5K; all families will be invited to walk or run in a race organized by the parent association.

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

*Mundo Verde's mission is to foster high levels of academic achievement among a diverse group of students by preparing them to be successful and compassionate global stewards of their communities. To help achieve this mission, we have adopted the US Partnership for Education for Sustainable Development National Education for Sustainability K-12 Student Learning Standards, and will evaluate our students' environmental and sustainability literacy according to these national standards. These standards focus on the following components of sustainability knowledge, skills, and values: intergenerational responsibility, interconnectedness, ecological systems, economic systems, social and cultural systems, personal action, and collective action. Our ultimate goal is that each and every one of our students becomes a changemaker. Changemakers are people who use their depth of knowledge on an issue to act and perform meaningful service in the world. We are developing our own assessment system to measure our students' changemaker behavior.*

*In addition to learning sustainability content and skills, Mundo Verde students actively take part in and practice sustainability values and habits to green our school by participating in data collection and benchmarking; this fall, students have regularly measured and tracked garbage and recycling rates. As our students get older, we anticipate that they will collect facilities data and report that data to our school and neighborhood communities.*

*We know that teaching students about the environment and sustainability can't be done in the classroom alone. To that end, we prioritize outdoor learning time and exploration, knowing that these early childhood experiences will shape our students' perceptions and love of the outdoors.*

*Finally, Mundo Verde's belief is that bilingualism is an essential tool for change that gives people a sense of identity, culture, place, and purpose. At Mundo Verde, bilingual education better prepares students to succeed and take on responsibility for tomorrow's world, with more capacity to innovate, integrate and build partnerships across diverse communities.*

**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.

Mundo Verde uses the *National Education for Sustainability K-12 Student Learning Standards* (included in our Documentation Appendix). From these standards, we have created learning targets that students master during their two 8-10 week learning expeditions. The vertically and horizontally aligned expeditions are focused on increasingly complex sustainability concepts. Our 2012-2013 learning expeditions include Healthy Bodies, Plants, Houses, Ants, Corn, Adaptations/Butterflies, and Compost/Recycling.

During an expedition students dive deeply into one content area for eight to ten weeks. Many learning expeditions attempt to solve a real community problem--they put students in the position where they can be real community changemakers. For example, last spring a Mundo Verde kindergarten classroom studied adaptations and habitats. During a regular visit to an area library students looked for animal books. The librarian told the students that the library didn't have a lot of animal books. When students returned to the classroom they were eager to help the library get more books. Ultimately they decided to write a book and gift it to the library. Several authors came in to tell how they start writing non-fiction books; during these conversations the students learned they needed to do a lot of research. Students learned to use non-fiction texts to learn new information (a Common Core Standard), to interview scientists to clarify questions and to conduct fieldwork to test theories. Once they collected their information they used student-created rubrics, multiple drafts and constant revision to create a beautiful book filled with authentic non-fiction writing on animal adaptations and habitats. At the end of the expedition students presented their book to the library where it can still be found.

Similarly, many PreK-3 classrooms across the country study a unit on the human body. But at Mundo Verde, our youngest learners dove deeply into an expedition (conducted in Spanish) on how to keep the body safe and healthy. They showed what they learned through pictures, quotes and photos. These materials were made into a brochure. The students delivered the brochures to two area schools and a health clinic which serve low-income, Spanish speaking populations. Expeditions give even our youngest learners an opportunity to make a meaningful contribution to our community.

Sustainability concepts are also taught through the Enrichment Program. Kindergarten and first grade students participate in a 10-week cooking curriculum, which uses many locally grown ingredients, and vegetables harvested from our school garden. After-school students maintain the school gardens and learn about growing food through thematic mini-units.

✓ Environmental and sustainability concepts are integrated into assessments. Describe.

Mundo Verde took the National Education for Sustainability (NES) standards and converted them into age-appropriate, specific learning targets. Teachers are using these learning targets to generally assess student learning. In order to help shape wide sweeping changemakers, Mundo Verde is concerned with not only what knowledge our students gain but also how they use that knowledge to make a difference. We are in the process of creating a formalized school wide environmental literacy assessment focused on understanding whether and how students at Mundo Verde are becoming changemakers.

We feel the need to create our own assessment tools because our research and discussion with experts has revealed that there are currently no sufficient assessments for early childhood education for sustainability curriculum. Some Education for Sustainability (EfS) assessments have been executed and recorded for college, high school, and even upper elementary school students. From the literature, we have compiled what the experts determine to be necessary assessment components, and are using it to refine our own assessment that is specific to the age of our students (PreK-3 through first grade) and sustainability curriculum requirements. The NES provides some suggestions for performance-indicating activities to measure the students' absorption of the standards. (See the attachments section of our application for a chart outlining the different standards and performance indicators.) For example, these performance indicating activities include the drawing of a family tree to demonstrate an understanding of intergenerational responsibility; the sorting of plants and animals into different categories and explaining the meaning of 'adaptations' to demonstrate an understanding of Ecological Systems; and the ability to differentiate between wants and needs, for example by sorting the image of a TV under "want" and the image of water under "need."

The North American Association for Environmental Education suggests that EfS assessments should measure the students' environmental dispositions, behaviors, knowledge, and competencies, to determine whether they are receiving a holistic and effective sustainability education (Developing a Framework for Environmental Literacy, NAAEE, 2011). These four capacities are covered by NES standards, and our assessments will measure these different capacities as well - though we will focus particularly on the behavior element. Anecdotally, Mundo Verde has started to collect stories of these behavior shifts. After a recent expedition on recycling, a parent lamented that they would never be able to throw a bottle away again. Parents regularly report that students formally reticent to go outside have been asking to go to the city's Rock Creek Park during the weekends. Mundo Verde's formal assessment will attempt to capture these shifts so we track our progress towards fostering students who have the skills and the empathy to make change happen.

- ✓ Professional development in environmental and sustainability education is provided to teachers. Describe.  
Mundo Verde engages 100% of the teaching team in sustainability education professional development. This happens during the four week summer institute, at the weekly Wednesday afternoon PD sessions, and during several scheduled whole staff PDs. There is a particular focus on understanding the *National Education for Sustainability K-12 Student Learning Standards*.

**2C. For schools serving grades 9-12, provide: N/A**

1. Percentage of last year's eligible graduates who completed the AP Environmental Science course during their high school career: N/A    Percentage scoring a 3 or higher: N/A
2. How does your school use sustainability and the environment as a context for learning subjects such as: science, technology, engineering, mathematics while preparing them for green careers using green technologies? N/A

**3C. Describe students' civic/community engagement projects integrating environment and sustainability topics.** Expeditionary Learning's Core Practice Benchmark says, "Service learning is an integral part of many learning expeditions' investigations and products, and meets an authentic community need." We have embraced this sentiment and all of our students participate in community engagement projects through learning expeditions. One component of learning expeditions is creating an authentic product that helps the community in a meaningful way. The PreK-3 classes studied plants and trees during an expedition last year. They then created a usable field guide for a local park. Similarly, one Kindergarten class created a book on animal adaptations for a library. The other class created a video, in Spanish, on the importance of monarch butterfly habitat preservation.

We also explicitly teach community building and civics through Crew and a formal set of Habits of Mind. Crew is an Expeditionary Learning structure that provides an opportunity for all students to develop a sense of community and belonging at the school. Crew introduces students to Mundo Verde's Habits of Mind. These habits are

behaviors, virtues, and characteristics that all members of the school community strive to practice and embody each day.

**4C. Describe your students' meaningful outdoor learning experiences.**

Mundo Verde students in every grade regularly engage in sustainability-focused expedition fieldwork. In this practice, we are guided by Expeditionary Learning's Core Practice Benchmark, which says students "use the natural and social environment of their communities as sites for purposeful fieldwork and service connected to academic work."

Mundo Verde students participate in Crew, an Expeditionary Learning inspired social curriculum. Once a month, our Crews travel to Rock Creek Park for a day of team-building and outdoor exploration. During the Enrichment Program, students have regular garden maintenance jobs and responsibilities. All students spend at least an hour outside everyday at school. During this unstructured time students either travel to a community park across the street or to Rock Creek Park. In the community park students regularly invent their own adventures, play tag-like games and explore the playground equipment. Additionally, classrooms often travel to a branch of Rock Creek Park to have a more nature-based recess. There students climb over and under fallen trees, create forts and enter into the world of nature-based fantasy play.

**5C. Describe how outdoor learning is used to teach an array of subjects in contexts, engage the broader community, and develop civic skills.**

Mundo Verde's outdoor learning is modeled on the authentic research of professionals in the field (e.g., entomologists, foresters). Students learn from outside experts whose engagement goes beyond presentations to train students in techniques used in the field. On outdoor fieldwork trips, students are learning additional expedition content, but almost more importantly, they are learning to interview experts, take notes and ask questions.

Our monthly *Crew* trips to Rock Creek Park teach explicit skills, but also serve as an opportunity to get familiar with a natural space and community organizations near our school. One such community organization, Friends of Peirce Mill (Rock Creek Park historic mill), has come to our school asking for help on a community problem; that request will be the basis for an expedition this spring on the Wood Thrush (the DC State Bird).

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

- City Blossoms: To develop an edible garden and garden-focused curriculum
- Expeditionary Learning Schools: Professional and curriculum development
- U.S. Forest Service, International Program: Trainings, monarch butterfly curriculum, staff
- Friends of the Park: Collaboration with community members for maintenance of the yet-to-be-named park on 16th Street and Park, NW.
- Friends of Peirce Mill: Wood thrush partnership, support for Kindergarten corn expedition
- National Park Service: Support for Kindergarten corn expedition
- Revolution Foods: Nutrition and wellness programs, as well as provision of health food
- ECO City Farms: Support for 1st grade composting expedition
- Smithsonian Institution Natural History Museum: Entomologists to support the PreK-4 ant expedition
- Mount Pleasant Neighborhood Library: Regular visits to enrich literacy, especially Spanish literacy, and use of educational resources for various expedition topics

**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.**

Mundo Verde's mission says, "Mundo Verde aims to foster high levels of academic achievement among a diverse group of students by preparing them to be successful and compassionate global stewards of their

communities....". We are teaching students to be global stewards by integrating environmental awareness and action into all aspects of the curriculum.

As previously discussed, learning expeditions help students dive deeply into one topic. The expeditions have been mapped out to ensure that students master the *National Education for Sustainability K-12 Student Learning Standards*.

The Enrichment Program exposes students to a range of sustainability focused learning opportunities through specials and the after-school program. In specials, all of Mundo Verde's students participate in yoga, which helps them build awareness of themselves and the world around them. Similarly, all students participate in physical education. Additionally, all kindergarten and first grade students participate in cooking and nutrition classes. The cooking class teaches students how to follow a recipe and prepare healthy foods with ingredients from our school garden. To tie the student curriculum to our commitment to green our building, students participate in data collection and benchmarking. This fall, students have regularly measured and tracked garbage and recycling rates. As our students get older, we anticipate that they will collect facilities data and report that data out to our school and neighborhood communities.

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. See attached in the Documentation Appendix.

**From the U.S. Partnership for Education for Sustainability  
National Education for Sustainability K-12 Student Learning Standards**

**Table 2: K-4 Grade EfS Concepts – With Example Performance Indicators**

Component	Concepts and Example Performance Indicator
<b>1.1 Intergenerational Responsibility</b>	<ul style="list-style-type: none"> <li><b>Family</b> - Students analyze their roles and responsibilities in their family.</li> <li><b>Generations</b> (grandparents, parents, and children) - Students draw and label their family tree identifying different generations. Students understand how their actions today may affect other generations; they take action to minimize negative impacts on future generations (service-learning projects)</li> </ul>
<b>2.1 Interconnectedness</b>	<ul style="list-style-type: none"> <li><b>Relationships</b> - Students interact respectfully with others, including those with whom they have differences.</li> <li><b>Historical Connections</b> - Students demonstrate understanding of the concepts of “past”, “present”, and “future.”</li> <li><b>Sense of Place</b> – Students demonstrate an understanding of place – the natural systems and cycles, the human/cultural context, and the connections between both. At this grade level they focus on developing their sense of place in their immediate community. Example: Students create a story or drawing that demonstrates their understanding and connection to a special place of significant meaning to themselves, their family, and their community.</li> </ul>
<b>2.2 Ecological Systems</b>	<ul style="list-style-type: none"> <li><b>Connection to Nature</b> – Students, in both urban/sub-urban and rural environments spend time outdoors experiencing and interacting with nature by walking, observing, gardening, etc. They feel comfortable being in the outdoors (e.g.: getting dirty, seeing insects and animals), they see the patterns and connections in nature, and they begin to develop a naturalist intelligence.</li> <li><b>Plants, Animals, Habitats</b> - Students are able to distinguish between plants and animals and can explain how living organisms interact with the environment in which they live. Students identify food /energy, water, shelter as basic needs of animals and plants. Examples: Students sort local common organisms into animal and plant groups. They design and build a schoolyard habitat for native species, taking into consideration the basic needs of the plants or animals.</li> </ul>
<b>2.3 Economic Systems</b>	<ul style="list-style-type: none"> <li><b>Human Needs and Wants (food, water, energy, shelter)</b> - Students distinguish between personal wants and needs and identify how culture, marketing, and advertising inform their consumption patterns. Students identify food, water, energy and shelter as basic human needs.</li> </ul>
<b>2.4 Social and Cultural Systems</b>	<ul style="list-style-type: none"> <li><b>Family and Friends</b> - Students define and develop productive and satisfying relationships with others. They value and know how to help create an atmosphere of mutual respect and kindness.</li> <li><b>Personal Identity</b> - Students develop a sense of unique worth and personal competence.</li> <li><b>Happiness</b> - Students have a sense of well-being and understand which factors contribute to their own and other's happiness.</li> <li><b>Fairness</b> – Students treat others fairly. They develop an understanding that resources need to be shared to meet the needs of living things – across places and generations.</li> <li><b>Collaborative Learning</b> - Students perform effectively on teams that set and achieve goals, conduct investigations, solve problems, and create solutions (e.g., by using consensus-building and cooperation to work toward group decisions).</li> </ul>
<b>3.1 Personal Action</b>	<ul style="list-style-type: none"> <li><b>Setting Goals</b> - Students assess their own learning by developing criteria for themselves, and use these to set goals and produce high-quality work.</li> <li><b>Communicating Ideas</b> - Students use different media to share ideas with diverse audiences.</li> <li><b>Making a Difference</b> - Students take an active role in their community and feel a locus of control or self-efficacy. Students understand that everyone has the ability to affect change or impact a system, community, and self.</li> </ul>
<b>3.2 Collective Action</b>	<ul style="list-style-type: none"> <li><b>Setting Goals</b> - Students work cooperatively and respectfully with people of various groups to set community goals and solve common problems.</li> <li><b>Working Together</b> - Students perform effectively on teams that set and achieve goals, conduct investigations, solve problems, and create solutions (e.g., by using consensus-building, conflict resolution, and cooperation to work toward group decisions). Students use systematic and collaborative problem-solving processes, including mediation, to negotiate and resolve conflicts. Students respect and value human diversity as part of a multi-cultural society and world.</li> </ul>

## Sustainability Rubric (1 of 2)

		<b>Starting</b>	<b>Establishing</b>	<b>Achieving</b>	<b>Excelling</b>
	<b>Vision and values clarification</b>	An individual or group has identified a need to examine the role that the school community can play in terms of sustainability and sustainable futures (links to its vision and values).	A process of examination of values is undertaken in the context of developing a whole-school vision for Education and Sustainability (EfS) through an inclusive/participatory process. A planned approach supports ongoing change processes.	Activities, policies and decision-making throughout the school community reflect the established vision and values.	Decisions, actions and outcomes link with and add to a culture of sustainability.
	<b>School governance</b>	An individual or group is working to build support for the adoption of sustainability as a key context for learning across the school community.	Teachers and administrators are working to establish sustainability as a key context for learning across the school community.	Our whole school community (teachers, administrators, parents, students) is working to establish ongoing processes to support EfS.	Our school governance provides for <i>school community leadership and support for EfS</i> ; the school is positioned as a ‘community hub’, working in partnership with parents and local organizations to achieve positive outcomes for sustainability.
	<b>School planning</b>	EfS considered relevant to school planning, but with no specific action taken.	EfS is (becoming) part of school planning, with some staff using it to guide decision-making.	EfS is integral to school planning, and all school staff and student understand it (and to varying degrees have been involved in developing plans).	EfS drives school planning. Parents and the local community are engaged in terms of understanding, support and direct engagement at school and home.
	<b>Review EfS activity</b>	The school is involved with a number of environmental and socio-cultural education programs/activities, but these are not set within any particular coordinated framework.	Processes and strategies are being developed to integrate existing programs/activities into a broader framework that supports EfS throughout the whole school community.	Directions and priorities are actively supporting the integration of EfS activity throughout the whole school community.	Most programs and activates are interconnected, delivered in a cohesive and coherent way, and represents a comprehensive approach to teaching and learning for sustainability.
	<b>Professional learning</b>	A staff member or members have learnt about sustainability to provide action-learning activities for students.	A number of staff have participated in professional learning for EfS, and engage in action learning activities with students.	Many staff have participated in professional learning for EfS, and staff, students and the community actively learn with each other as they achieve sustainability.	Most staff are competent in EfS practice, and the whole community initiates and selects integrated learning strategies that reflect local needs and context.

## Sustainability Rubric (2 of 2)

	<b>Teaching and learning</b>	One or more teachers recognize the need for a collaborative inquiry/critical thinking and action learning approach to develop EfS.	A collaborative inquiry/critical thinking and action learning approach to EfS is being developed within the teaching group.	Baseline information is being collected as a result of inquiry questions linked to a collaborative inquiry/action approach to EfS.	Inquiry questions inform/support behavior change in members of our school community – reflective practices support continual improvement.
	<b>Curriculum integration</b>	An individual or group has considered EfS as relevant to school curriculum (developing).	EfS is addressed by a few teachers/ departments. Some of the key concepts, skills, values and attitude/behaviors are explored.	EfS is addressed by most teachers/ departments. Many of the key concepts, skills, values and attitudes/ behaviors are explored.	A comprehensive scope and sequence outlines EfS across year levels, providing students with a holistic, connected understanding of sustainability.
	<b>Reporting on learning outcomes (behavior change) and values</b>	Information is collected on student learning outcomes, in an ad hoc way, by individual teachers.	A range of information is collected to improve student learning outcomes and reporting procedures to parents, council, education bodies).	A range of information is collected by all staff, to inform student learning outcomes and reporting strategies.	Information collection is a strategic, underpins meaningful reporting and supports planned improvements in student learning outcomes and school community priorities.
	<b>Student voice and engagement</b>	Students and teachers recognize the importance of student voice/participation in decision-making re EfS.	A mechanism for student participation regularly engages students in meaningful decision-making re issues, concerns and options.	A mechanism for student participation is complemented by decision-making processes that regularly engage all students.	Students evaluate and analyze, reflecting for continuous improvement for a sustainable future (based on taking positive action).
	<b>School network</b>	It's occasionally been suggested that links be made with other local schools re resource sharing, education/social activities and projects.	An individual teacher has teamed up with another school in the local area (or buddied up with a school at distance) to carry out a specific project/activity (possibly in/with the local community).	An ongoing relationship has been developed with another/other schools – resource sharing, exchange of ideas/practice re EfS, joint activities (often in/with the local community).	An informal (formal?) network of schools has been established – regular resource sharing, communication flows, professional development, joint projects (in/with the local community).
	<b>School community networks and partnerships (communicating and partnering with parents)</b>	Communication with parents and the community tell them what's happening at school (principal, individual teachers).	Parents and council are involved in school life and support EfS. Students/teachers make a positive contribution by identifying and actively addressing local issues.	Working partnerships between students, the school and parents, identifying and addressing local issues, enrich EfS.	Students and teachers share good practices developed by working with parents and guardians through involvement in community projects/partnerships.
	<b>Recognition and promotion of successful action (broader local community)</b>	An individual or group has been acknowledged within the school community (assembly, school newsletter, etc).	Individual and groups are acknowledged within the broader local community (local community newspapers, library displays, etc).	School community (more broadly) is recognized for Identifying and addressing specific local issues.	School community is acknowledged/recognized for its overall whole school approach to EfS.

From *Why do Animals Look the Way They Look*, a book written and illustrated by kindergarteners for a Spring 2012 expedition on Adaptation and Habitat.

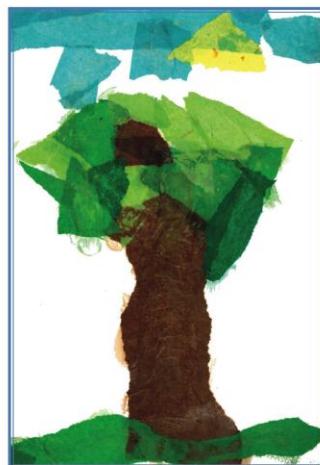
## Great Horned owl



Samadhi

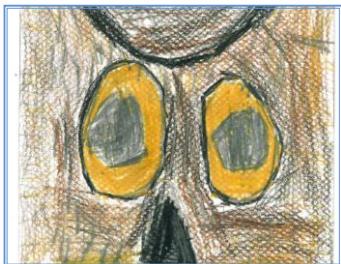
The Great Horned Owl is a large owl. Owls are a type of bird. They look like they have horns sticking out of their heads but actually it is just feathers. The feathers on the bird are brown, black and white.

## Habitat



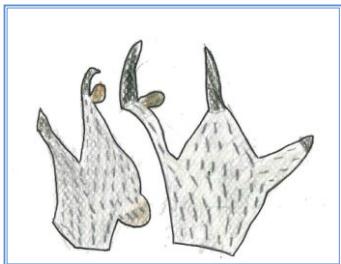
Xavier

The Great Horned Owl lives in the forest. They spend most of their time in the trees or flying through the sky. The trees help the animals hide. If you want to see a Great Horned Owl you could go to Rock Creek Park at night.



Felix

Great Horned Owl's have big eyes for night vision. They have night vision so they can catch their prey like mice.



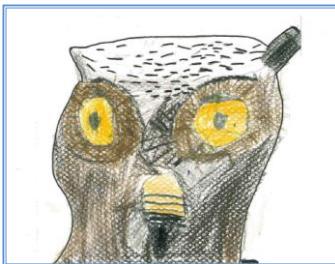
Samadhi

Great Horned Owls have claws so they can grab onto branches and catch their food. They fly really fast so they have to grab on to the branch.



Gus

The Great Horned Owls have another set of feathers under their wings so that it can be quiet so it can catch its prey.



Amy

The Great Horned Owl's head can turn almost all the way around so they can see.

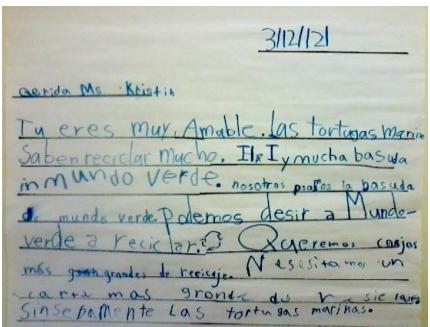


**On-site Recreation Space:** (clockwise from top left) 1. Aerial view of rear parking space before construction; 2. Construction using recycled deck material; 3. Students assisted with painting projects; 4. Finished play space includes sand boxes, a area for outdoor physical education & recess to support wellness.



(Top Left) A student measures the amount of waste produced by the school. Sustainability Coordinator, Molly Howard, works with students to sort trash vs. recyclable goods.

(Bottom Left) Students study composting and recycling for their fall expedition unit. A letter in Spanish from first grade students to the school's Executive Director justifies the need for an integrated recycling program at Mundo Verde. The students explain that they're weighing trash produced at the school (top right and left photos) and the quantity calls for bigger recycling bins so that students can recycle more and produce less trash.





**Mundo Verde's Garden Build Day: October 15, 2012** Approximately 75 volunteers helped throughout the day to transform the front yard and backyard play areas into greener and more beautiful spaces. Children painted stepping stones, while parents, teachers and friends worked with City Blossoms and the U.S. Forest Service to fill recycled tires and raised bed boxes with soil and plant fall vegetables. The garden is an important component of Mundo Verde's sustainability curriculum, and we look forward to continuing to work with students in planting, harvesting, and connecting with our food.



**Student Health & Wellness:** Mundo Verde Students engage in weekly yoga & cooking/nutrition classes. As part of the school's wellness policy, students have at least 60 minutes of outdoor time a day, including scheduled recess.



**Sustainability Curriculum:** (clockwise from top left) A. Students perform essential fieldwork as part of their studies. For an expedition on water, students traveled to Rock Creek Park's Peirce Mill. B. They also wrote a series of haiku for water conservation advocacy. C. Students studying butterflies had the opportunity to observe them in their natural habitat. D. Our youngest students learn early on about life cycles of both humans and animals.



**Physical Education & Fitness:** As part of Mundo Verde's robust health and wellness program, Mundo Verde students engage in a minimum of 90 minutes of structured physical education per week. Mundo Verde has an in-house certified physical education teacher, and most classes take place outdoors.

[Footage of the Mundo Verde garden & cooking classes \(2:47\)](#)