

GreenRibbonSchools



2012-2013 School Nominee Presentation Form

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.

Green Ribbon Schools

U.S. Department of Education Green Ribbon Schools 2013

For Public Schools only: Charter Title I Magnet Choice

Name of Principal Mr. Joe Norman

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

Official School Name Locust Trace AgriScience Farm

(As it should appear in the official records)

School

Mailing Address 3591 Leestown Rd

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

Lexington

KY

40511

City

State

Zip

County Fayette

State School Code Number* 905

Telephone (859) 381-3990

Fax (859) 381-3989

Web site/URL techcenters.fcps.net/locustrace

E-mail sara.tracy@fayette.kyschools.

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

Joe Norman
(Principal's Signature)

Date 2/12/13

Name of Superintendent* Dr. Tom Shelton

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

District Name* Fayette County Public Schools Tel. (859) 381-4100

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.

Tom Shelton
(Superintendent's Signature)

Date 2-13-13

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



PART II – SUMMARY OF ACHIEVEMENTS

Instructions to School Principal

Provide a concise and coherent "snapshot" that describes how your school is representative of your jurisdiction's highest achieving green school efforts in approximately 800 words. Summarize your strengths and accomplishments. Focus on what makes your school worthy of the title U.S. Department of Education Green Ribbon School.

PART III – DOCUMENTATION OF STATE EVALUATION OF NOMINEE

Instructions to Nominating Authority

The Nominating Authority must document schools' high achievement in each of the three ED-GRS Pillars and nine Elements. For each school nominated, 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 school's eligibility and compliance with the following requirements is true and correct to the best of the Authority's knowledge.

1. The school has some configuration that includes one or more of grades K-12. (Schools on the same campus with one principal, even a K-12 school, must apply as an entire school.)
2. The school is one of those overseen by the Nominating Authority which is highest achieving in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
3. The school meets all applicable federal civil rights and federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency

Kentucky Department of Education (KDE)

Name of Nominating Authority

Mr. Hiren Desai, Associate Commissioner
Office of Administration & Support

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

GreenRibbonSchools



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

A handwritten signature in black ink, appearing to be 'W. M. ...'.

Date 2/14/13

(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 according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509
Expiration Date: February 28, 2015

Public Burden Statement

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



Locust Trace AgriScience Farm
3591 Leestown Rd
Lexington, KY 40511

Locust Trace AgriScience Farm
Summary of Achievements
Principal Joe Norman
14 February 2013
(859) 381-3990

**U.S. Department of Education Green Ribbon Schools
Section II. Summary of Achievements**

Locust Trace AgriScience Farm (LTAF) has been a truly one-of-a-kind learning environment since before it was even constructed. The education began in the design phase when the emphasis on green design and sitting lightly on the land emerged. Students who were enrolled in agriculture classes in Fayette County at that time were invited to travel to the untouched land that is now the campus of LTAF to take soil samples and examine the on-site stream, factors that would impact and aid in facility design. The first time students rode busses onto the property they drove up a drive made of permeable pavers, immediately welcoming them into a world of sustainable education. Daily students encounter a green roof, classrooms and labs lighted through solar tubes and a building that is a sustainability lesson in itself, all while attending classes all over an 82 acre campus, indoors and outdoors, full of physical activity.

Students of Locust Trace AgriScience Farm are fully engaged. LTAF is a career and technical high school which means our students choose to attend because they are interested in the subject area. Each subject area offers experiences and collaborations with the surrounding community. Students may choose to take Plant and Land Science to learn about the land around them and how to grow and sustain it. Any given day in Plant and Land Science can lead LTAF students to a day of teaching visitors, such as a class from a local middle school, how to harvest fresh produce. A portion of that fresh produce then is then donated to the local Farm to School program, providing students at other schools with an experience of good nutrition through eating fresh, local produce. Students may also choose to take Small and Large Animal Science where they raise broilers and laying hens only to process the broilers and collect the eggs providing local food banks with farm-raised, organic meat and eggs. They may choose to enroll in Agriculture Power Mechanics and have the opportunity to create a new livestock watering system that runs on solar energy then to teach local farmers about their creation and how it may be something that they too can use. Students are a part of every process and the community relationships are nurtured daily. This exceptional environment engages them academically while simultaneously giving them hands-on experience and preparing them for the world of work.

Designed to be net-zero in energy use and waste disposal, designed to create a truly engaging learning environment, designed to be a place that prepares students for further education in addition to career readiness, Locust Trace is a school like no other. I am honored to be the principal of such an incomparable and extraordinary school where students, families and the community all take part in the education that occurs on a daily basis. I cannot imagine a more deserving school of the 2013 US Department of Education Green Ribbon School Award. Thank you for your time and consideration of Locust Trace AgriScience Farm.

Part III – Documentation of State Evaluation of Nominee

The Kentucky Nominating Authority for U.S. Department of Education Green Ribbon School Program consisted of various energy partner representatives. Each Kentucky Green Ribbon School Application was reviewed and evaluated by the Nominating Authority to ensure high achievement based on the school's documented achievement toward reaching the goals of each of the three U.S. Department of Education Green School Pillars and elements.



Kentucky 2012-2013 Green Ribbon Schools Application

Thank you for your interest in completing the Kentucky application for nomination to U.S. Department of Education Green Ribbon Schools (ED-GRS). In order to complete this application, you will need to collect data about your school's facility, health and safety policies; food service; and environmental and sustainability curriculum.

ED-GRS recognizes schools taking a comprehensive approach to greening their school. A comprehensive approach incorporates environmental learning with improving environmental and health impacts. In Kentucky, becoming a U.S. Department of Education Green Ribbon School is a three-step process.

First - submit a "letter of intent" to KDE via email to Paige.Patterson@education.ky.gov to indicate your school's desire to submit an application. *Deadline is February 1, 2013.*

Second - complete and email this form Kentucky to Paige.Patterson@education.ky.gov, for evaluation as a nominee for. *Deadline is February 6, 2013.*

Third - work with KDE to complete a nomination package provided by the USDOE. *Deadline is February 13, 2013.*

ED selects honorees from those presented by eligible nominating authorities nationwide. Selection will be based on documentation of the applicant's high achievement in the three ED-GRS Pillars:

Pillar I: Reduce environmental impact and costs.

Pillar II: Improve the health and wellness of students and staff.

Pillar III: Provide effective environmental and sustainability education, incorporating STEM, civic skills and green career pathways.

Schools demonstrating exemplary achievement in all three Pillars will receive highest rankings. It is important to document concrete achievement. It will help you to assemble a team to complete the application. This team might include: a facilities manager, physical education director, food services director, curriculum director, finance department representatives, teachers and students. You should consult the ED-GRS [resources page](#) for standards, programs and grants related to each Pillar, Element and question. This is an excellent clearinghouse of resources for all schools, not just those who apply.

The questions in this application will help you demonstrate your high achievement in these Pillars as well as provide space for you to include pertinent documentation. You will receive points when you provide documentation for your answers, per the scoring rubric listed below.

Application Scoring Rubric:

<u>ED-GRS Pillars and Elements</u>	<u>Points</u>
Cross-Cutting Question: Participation in green school programs	5 points
Pillar I: Reduce environmental impact and costs: 30%	
Element 1A: Reduced or eliminated greenhouse gas (GHG) emissions Energy Buildings	15 points
Element 1B: Improved water quality, efficiency, and conservation Water Grounds	5 points
Element 1C: Reduced waste production Waste Hazardous waste	5 points
Element 1D: Use of alternative transportation	5 points
Pillar II: Improve the health and wellness of students and staff: 30%	
Element 2A: Integrated school environmental health program Integrated Pest Management Contaminant controls and Ventilation Asthma control Indoor air quality Moisture control Chemical management	15 points
Element 2B: Nutrition and fitness Fitness and outdoor time Food and Nutrition	15 points
Pillar III: Provide effective environmental and sustainability education, incorporating STEM, civic skills and green career pathways: 35%	
Element 3A: Interdisciplinary learning about the key relationships between dynamic environmental, energy and human systems	20 points
Element 3B: Use of the environment and sustainability to develop STEM content, knowledge, and thinking skills	5 points
Element 3C: Development and application of civic knowledge and skills	10 points
Total	100 points

Note that if selected for nomination to ED-GRS, the school principal and district superintendent must be prepared to certify that each of the statements below concerning the school's eligibility and compliance with the following requirements is true; however, 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 as highest achieving in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
3. 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.

School Contact Information

School Name: Locust Trace AgriScience Farm District: Fayette

Street Address: 3591 Leestown Rd

City: Lexington State: KY Zip: 40511

Website: www.techcenters.fcps.net/locustrace

Facebook page: https://www.facebook.com/#!/pages/Locust-Trace-AgriScience-Farm/257276544297973

Principal Name: Joe Norman

Principal Email Address: Joe.Norman@fayette.kyschools.us

Phone Number: 859.381.3990

Lead Applicant Name (if different): Sara Tracy

Lead Applicant Email: Sara.Tracy@fayette.kyschools.us

Phone Number: 859.983.4514

<p>Level</p> <p><input type="checkbox"/> Elementary (PK - 5 or 6)</p> <p><input type="checkbox"/> K - 8</p> <p><input type="checkbox"/> Middle (6 - 8 or 9)</p> <p><input checked="" type="checkbox"/> High (9 or 10 - 12)</p>	<p>How would you describe your school?</p> <p>(*) Urban</p> <p>() Suburban</p> <p>() Rural</p>
<p>Does your school serve 40% or more students from disadvantaged households?</p> <p>() Yes (*) No 36%</p>	<p>Graduation rate: <u>98.6%</u></p> <p>Attendance rate: <u>91.53%</u></p> <p>Total Enrolled 2012-2013: <u>173</u></p>

Summary Narrative: Provide an 800 word maximum narrative describing your school's efforts to reduce environmental impact and costs; improve student and staff health; and provide effective environmental and sustainability education. Focus on unique and innovative practices and partnerships.

Locust Trace AgriScience Farm (LTAF) is the newest career and technical high school in Lexington, Kentucky with energy and environment being key factors in the facility design and agriculture being the educational focus. Locust Trace features spacious classrooms with adjoining labs, 6.5 acres for gardening, a state-of-the-art greenhouse with an aquaculture area for raising fish, a soaring auditorium with a garage door for bringing in livestock and machinery, an expansive equine barn with arena and an on-site veterinary clinic. Students study in one of five programs; Intro to Agriculture/Plant and Land Science, Veterinary Science, Agriculture Power Mechanics, Equine and Small and Large Animal Science.

The school is designed to be net-zero in energy through the use of photovoltaic solar panels and net-zero in waste disposal through the utilization of constructed wetlands. The school is also minimally hooked up to water municipalities. All rain water is collected from the classroom building and the equine barn/arena to be utilized for all crop irrigation and livestock watering. An on-site well has been accessed to back up the rain water collection system in case of a drought. Sustainable agriculture is a focus in all programs. This truly unique school opened its doors in August 2011 to 175 students. For the next several years the maximum number of students will be approximately 250.

LTAF students are the future of agriculture. The future of agriculture must be sustainable. The world's population is only growing each year and without a focus on the environment and sustainability the resources that we value will run out. Having an 82-acre farm at their fingertips not only allows our students to see the environment around them but also to put what they are learning into practice. Crucial community partnerships with the University of Kentucky Cooperative Extension Services, Salato Wildlife Center and Bluegrass PRIDE help develop the programs even further allowing LTAF students and the surrounding community to participate in a wide variety of environment and sustainability oriented activities such as native plant educational programs, community gardens and environmental education. Through tours, information fairs and summer programs our school reaches far beyond the immediate walls to support the surrounding community. LTAF was built with the future in mind and the curriculum and programs that are implemented each day are preparing for just that.

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

(* Yes () No Program(s) and level(s) achieved:

Kentucky Green and Healthy Schools-Candidate School

KY National Energy Education Development (NEED)-Rookie School

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

(* Yes () No Award(s) and year(s)

Lexington Fayette Urban County Government (LFUCG)-Environmental Award for developing a "Net-Zero" School

LFUCG-Elite Waste Buster School, Water Partner, Energy Partner

KY NEED- Rookie School of the Year

KY NEED-Outstanding Energy Education

ASHRAE Regional Technology Award

Pillar I: Reduced Environmental Impact and Costs

Energy

1. Can your school demonstrate a reduction in Greenhouse Gas emissions?

(X) Yes () No Percentage reduction: 60.3% Over (m/yy - m/yy): 12/11-11/12

Initial GHG emissions rate (MT eCO2/person): 529

Final GHG emissions rate (MT eCO2/person): 210

Offsets: NA How did you calculate the reduction? Using an EPA Greenhouse Gas Equivalencies Calculator. Locust Trace has only been in use for a year and a half so the district compared the CO2 emissions of the other vocational school in the district Eastside with Locust Trace. The schools are comparable in size and usage. Neither school has cooking facilities on site.

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

() Yes (* No Year(s) and score(s) received: N/A-Locust Trace has not received an Energystar certification due to its categorization as a vocational school. The average Kbtu/sqft-yr for a Kentucky school is approximately 62. Locust Trace is currently performing at 24 Kbtu/sqft-yr with no cooking facilities on site and a 3,000 sqft greenhouse. Plugging this building into Energystar Target Finder the building would receive a score of 96.

3. Has your school reduced its total non-transportation energy use from an initial baseline?(X)
Yes () No

Current energy usage (kBtu/student/year): 0.138 kBtu/Student-yr

Current energy usage (kBtu/sq. ft./year): 24 kBtu/sqft-yr

Percentage reduction: 58.4% over (m/yy - mm/yy): 12/11-1/12

How did you document this reduction? District Reports/Utility Bills

Locust Trace energy reduction was compared to Eastside Vocational school. The district uses on average 65.7 kBtu/sqft-yr and Eastside Vocational uses 57.66 and is comparable to Locust Trace in size and usage.

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

On-site renewable energy generation: 80% Type Solar Electric

Purchased renewable energy: 0% Type NA

Participation in USDA Fuel for Schools, DOE Wind for Schools or other federal or state school energy program: KY NEED, KY Green & Healthy Schools

5. In what year was your school originally constructed? 2011

What is the total building area of your school? 42,00 Sqft Academic Building; 60,000 Sqft Arena Building; 3,300 Sqft Greenhouse

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

For new building(s): Percentage building area that meets green building standards: 100%

Certification and level: No Certification Total constructed area: 105,300 Sqft

For renovated building(s): Percentage of the building area that meets green building standards:

NA Certification and level: NA Total renovated area: NA

The school was originally constructed in August 2011. The design team utilized LEED standards, KY Green and Healthy Schools Standards, ASHRAE Standard 189.1 and Living Building Challenge Guidelines during the design and construction of the building. Due to the cost of the application fees and the additional consultant fees the school district did not deem it necessary to apply for certifications with the knowledge that their building was designed using these standards as a guideline.

Water and Grounds

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

Average Baseline water use (gallons per occupant): 531.7

Current water use (gallons per occupant): 16.9

Percentage reduction in domestic water use: 96.8 %

Percentage reduction in irrigation water use: 100%, no domestic water for irrigation

Time period measured (mm/yyyy - mm/yyyy): 12/11-11/12

How did you document this reduction (i.e. ENERGY STAR Portfolio Manager, utility bills, school district reports)? District Reports and Utility Bills

The school has only been in operation for a year and a half. Therefore there is nothing to show water usage reduction from the original building. This building was designed for 0% site irrigation domestic water usage. Additionally this school utilizes low flow plumbing fixtures (1.6 gpf water closets, 0.5 gpm faucets, etc.) The reduction in water usage was compared to the average water usage in the other vocational school in the district Eastside Vocational. Eastside has similar programs and does not have cooking facilities on site.

8. What percentage of your landscaping is considered water-efficient and/or regionally appropriate? 100% Types of plants used and location: 100% of our landscaping is water efficient or regionally appropriate. Plants include native trees such as Sweet Gum, Sugar Maple, Redbud, Yellowwood, Magnolia and Pine. These are planted around paved areas for shade or as vegetative buffers to screen unsightly views. Rain garden plantings include Butterfly Milkweed, Black-eyed Susans, Golden Alexanders, Showy Goldenrod, Common Sneezeweed, Coreopsis and Wallflower.

9. Describe alternate water sources used for irrigation. (50 words max)

Roof runoff is collected in underground storage tanks both from the classroom building and the equine barn/arena. The water from these tanks is utilized to water our garden areas and livestock. In the case of a drought, the on-site well is able to back up the tanks.

10. Describe any efforts to reduce stormwater runoff and/or reduce impermeable surfaces. (50 words max)

All driving/walking surfaces at Locust Trace are permeable. There are 92k sqft of permeable pavers and an engineered gravel road. We also have a green roof awning on the front of our school.

11. Our school's drinking water comes from: (*) Municipal water source (*) Well on school property () Other: Our water does come from a municipal water source however our school was designed so that the on-site well could potentially provide our drinking water should code standards allow it in the future.

12. Describe how the water source is protected from potential contaminants. (50 words max)

The domestic water is protected utilizing a reduced pressure backflow preventer. This device allows a one way flow of water which prevents the reverse flow of polluted water from entering into the potable water supply. The yard hydrants and the hydronic system are not hard-piped to the domestic water system.

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

Drinking water is provided by KAW and meets specifications for safe drinking water. Lead free plumbing components were utilized during construction.

14. What percentage of the school grounds are devoted to ecologically beneficial uses? 95%
Other than the land now covered by buildings/barns the rest of the land remains untouched and is utilized for sustainable agriculture purposes. We cover crop between season in the garden to sustain our land and are developing a native plant educational trail to teach about the benefits of native plants. 50 word max)

Waste

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

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

77yds*8 times/month*.5=154

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

77yds*4 times/month*1=260

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): There is not a way to calculate our exact amount of compost. We have two compost piles on the campus both sized 160 cubic yards. There are compostable materials added almost every day (animal waste, plant waste...etc.) and once thoroughly composted this is used on the farm in our garden area.

Recycling Rate = $((B + C) \div (A + B + C) \times 100)$: 68.8

Monthly waste generated per person = $(A/\text{number of students and staff})$: .815

16. 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? Post-consumer material, fiber from forests certified as responsibly managed: 0% Chlorine-free: 100%

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

Flammable liquids	Corrosive liquids	Toxics	Mercury	Other:
None	None	None	None	

How is this measured? NA

How is hazardous waste disposal tracked? NA

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

We have classroom programs in place that collect trash cans and sort to be certain that there is nothing being thrown away that can be recycled or composted. We recycle or compost anything that we possibly can and the students are responsible for this program.

18. Which green cleaning custodial standard is used? GS-42

Our school has a chemical management program that includes: chemical purchasing policy (low or no-VOC products), storage and labeling, training and handling, hazard communication, spills (clean up and disposal), and selecting third-party certified green cleaning products.

What percentage of all products is certified? 75% of our products are. Our Pest Control program is Green certified as well.

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

Alternative Transportation

19. What percentage of your students walk, bike, bus, or carpool (2 + student in the car) to/from school? (Note if your school does not use school buses)

91.4%

How is this data calculated? (50 word max)

Students cannot drive without purchasing a parking pass, everyone else rides the bus. I divided the total number parking passes sold by the total number of students then multiplied by 100.

20. Has your school implemented?

designated carpool parking stalls.

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

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

Safe Pedestrian Routes to school or Safe Routes to School

Describe activities in your safe routes program: There are no residential properties within approximately one mile of the school therefore pedestrian traffic is inapplicable. (50 word max)

21. Describe how your school transportation use is efficient and has reduced its environmental impact. (50 word max) We are a new school therefore we haven't had very much time to improve our transportation environmental impact however 91.4% of our students ride the bus, reducing the average amount greatly.

22. Describe any other efforts toward reducing environmental impact, focusing on innovative or unique practices and partnerships. (100 word max)

LTAf and Fayette County Schools have partnered with Kentucky Utilities, the local electric utility provider, which allows them to be compensated for the excess solar energy they produce. Local environmental nonprofit Bluegrass PRIDE provides recycling and waste disposal education to all LTAf students. Salato Wildlife Center has partnered with LTAf to aid in the development of the native plant program. Finally, LTAf has partnered with Henry Clay High School's bio-fuels lab to utilize the biodiesel to run our farm machinery in a greener way.

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

Environmental Health

1. What is the volume of your annual pesticide use (gal/student/year)? Describe efforts to reduce use: 1.5 gallons/year-we are already using the bare minimum necessary. Our goal is for this to not increase in coming years.

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

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

Our school has identified and properly removed sources of elemental mercury and prohibits its purchase and use in the school. _____

Our school uses fuel burning appliances and has taken steps to protect occupants from carbon monoxide (CO) Aircuity monitors are installed in each room that monitor air quality.

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. _____

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

3. Describe how your school controls and manages chemicals routinely used in the school to minimize student and staff exposure. (100 word max) Stock concentration are locked in a chemical stock room, students only use diluted versions of chemicals. We follow all MSDS and FCPS guidelines on storage, usage and disposal.

4. Describe actions your school takes to prevent exposure to asthma triggers in and around the school. (100 word max)

Our school has an asthma management program that is consistent with the National Asthma Education and Prevention Program's (NAEPP) Asthma Friendly Schools guidelines.

5. Describe actions your school takes to control moisture from leaks, condensation, and excess humidity and promptly cleanup mold or removes moldy materials when it is found. (100 word max)

Our school visually inspects all structures on a monthly basis to ensure they are free of mold, moisture, and water leakage.

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

FCPS has installed a local exhaust system in the custodial closet, bathrooms and welding booths.

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

The system is inspected every 90 days by an outside contractor as a function of the filter change process. The building management system monitors the filter status that will alert Fayette County Public School maintenance department when filters need to be maintenance/cleaned.

8. 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. (100 word max)

Our school meets ASHRAE Standard 62.1-2010 (Ventilation for acceptable indoor air quality). CO₂ monitors are installed throughout the building to deliver the adequate amount of outside air based on CO₂ measurements. Our school's indoor relative humidity is maintained below 60%.

9. 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. (200 word max)

Our school has a comprehensive indoor air quality management program that is consistent with EPA's Indoor Air Quality (IAQ) Tools for Schools.

Nutrition and Fitness

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

Our school participates in the USDA's HealthierUS School Challenge. Level and year:

Our school participates in a Farm to School program to use local, fresh food.

Our school has an on-site food garden. Currently a 1 acre garden with potential to grow to 6.5 acres

[*] Our school garden supplies food for our students in the cafeteria, a cooking or garden class or to the community. Our school does not have a cafeteria however the garden provides produce that students from LTAF can learn to prepare in class or take home. A portion of the produce is donated to the Fayette County Farm to School Program and a limited amount students sell at the local farmers market.

[*] Our students spent at least 120 minutes per week over the past year in school supervised physical education.

LTAF is an 82 acre farm with a curriculum revolving around agriculture. The activities our students participate in are including but not limited to: horseback riding, stall cleaning, mowing, weeding, plowing, livestock handling, hay bale moving, raking, watering livestock, planting...etc.

[*] At least 50% of our students' annual physical education takes place outdoors. Approximately 90%

[*] Health measures are integrated into assessments. For example, when students are taught to move hay bales, instruction is given on proper lifting techniques. All programs have health and safety guidelines and assessments.

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

[] Food purchased by our school is certified as "environmentally preferable"

Percentage: _____ Type: _____

11. Describe the type of outdoor education, exercise and recreation available. (100 word max)

Outdoor recreation is including but not limited to: walking, horseback riding, stall cleaning, mowing, weeding, plowing, livestock handling, hay bale moving, raking, watering livestock, planting...etc. We have an outdoor classroom that is utilized on a regular basis, are developing native plant walking trails and even provide recreation to students from other schools who take tours.

12. Describe any other efforts to improve nutrition and fitness, highlighting innovative or unique practices and partnerships. (100 word max)

Our efforts towards nutrition and fitness revolve around our school programs. For example, when students are taught using hay bales, they are taught the proper lifting techniques and are warned about the possible injuries associated with it. When horseback riding, students are taught the proper seat and body position that keeps them from injuring themselves for the horses. There are 4 water fountains in the school, readily available for students and all students are encouraged to bring reusable water bottles. Finally, our community gardens allow an area for physical activity as well as nutrition education.

Pillar 3: Effective Environmental and Sustainability Education

1. 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.

[*] Our school has an environmental or sustainability literacy requirement. (200 word max)

The design of LTAF requires the environmental and sustainability initiatives be a topic of study for all students. All students gain a basic understanding of how the building is designed and what makes it sustainable. From the permeable pavers that you drive up on to the roof of both the classroom building and equine barn being covered in a variety of solar panels, just walking our campus is an educational experience.

[*] Environmental and sustainability concepts are integrated throughout the curriculum. (200 word max)

Our classes revolve around the subject of agriculture. Sustainable agriculture is the way of the future and the new generation and our students are just that. Sustainable agriculture practices such as cover cropping your land between seasons are constantly implemented into curriculum and are included in assessment. Our school also offers an ambassador program in which students are trained thoroughly on the sustainability features and environmental mission of the school. They are then able to give facility tours and not only can they explain and discuss the “green” features they are able to explain them on a variety of levels (i.e. elementary school visitors vs. industry professionals). Our chemistry and biology classes regularly integrate environmental and sustainability related topics into their daily study. For example, they study energy production facilities such as nuclear power plants and the radioactive waste that they generate. They then discuss potential future energy sources such a fusion (utilizing water).

[*] Environmental and sustainability concepts are integrated into assessments. (200 word max)

LTAF student ambassadors and agricultural communications interns are all given a verbal assessment of their knowledge of the concepts. They all excel in this area. An example of a common assessment would be in our chemistry class this past semester the midterm exam was to research and write an entire case study of how global agricultural industries have impacted the environment. Topics included but we not limited to: deforestation, fishing industry off the coast of Indonesia, hydro- and aquaponics.

[*] Students show evidence high levels of proficiency in these assessments. (100 word max)

Students are required to follow the Literacy Design Collaborative Framework (LDC) for producing high quality pieces. Almost all students excelled in these assessments.

[*] Professional development in environmental and sustainability education are provided to all teachers. (200 word max)

The facility design team provides regular trainings on the facility, green design, our current energy usage and suggestions for improving in the future.

2. For schools serving grades 9-12, provide:

Percentage of last year's eligible graduates who completed the AP Environmental Science course during their high school career: _____ Percentage scoring a 3 or higher:

*We are a career and tech high school and do not currently offer AP Environmental Science.

3. How does your school use sustainability and the environment as a context for learning science, technology, engineering and mathematics thinking skills and content knowledge? (200 word max)

Each year LTAF hosts a sustainability fair inviting community partners to set up booths and teach about their version of sustainability. Community partners who participate in this event are as follows: EKV Center for Renewable and Alternative Fuel, Whole Foods, UK Arboretum, Fayette County, Farm to School-Emma, LFUCG Environmental Outreach, Bluegrass PRIDE, Seedleaf, Food Chain Lex, Bourbon and Beans, Polar Bears International, Lexington Farmers Market, Good Foods Coop, Bluegrass Wind Power. This fair is open to the entire community and all are invited to attend and learn about a wide variety of aspects of environmental education and sustainability.

4. How does your school use sustainability and the environment as a context for learning green technologies and career pathways? (200 word max)

The school itself is a lesson on green technologies and possible career pathways in the industry. All students are taught about the green design and the careers associated with it (i.e. architecture, engineering, green systems installation, sales...etc.). Students also have the opportunity to apply certain technologies in class. For example, our agriculture power mechanics class developed a system using a solar panel to generate the energy necessary to heat a watering system for livestock. This product could potentially be purchased by farmers to utilize on their farms should this type of system suit their needs.

5. Describe students' civic/community engagement projects integrating environment and sustainability topics. (200 word max)

The students take part in many civic/community engagement projects that relate to environmental and sustainability related subjects. First, Locust Trace is home to one of six Governor's Gardens (<http://greenteam.ky.gov/default.htm>). This garden teaches our students and visiting students about having an opportunity for sustainable, local produce. All produce from this garden is either donated to local nonprofit organizations or to the Fayette County Farm to School program. Students participate in both. Second, students are developing a native plant program. This program will supply local schools with the education and plants they need to develop a rain garden at their own school. A native plant walking trail will also teach visiting students about the importance and benefits of native plants such as stream restoration. Finally, students of LTAF, share their knowledge with thousands of visitors each year. Tours are given on a daily basis to all ages, all education levels and all interests. Through this our students gain invaluable experience and are able to share their knowledge with people from all over the world.

6. Describe students' meaningful outdoor learning experiences at every grade level. (200 word max)

Our students are all in grades 10-12. They all engage in meaningful outdoor learning experiences but the type of activities depends on the class in which they are enrolled. For example, equine studies students not only learn how to care for and ride a horse, they also learn about pasture and land management. Plant and Land science classes learn about gardening, local produce, cover cropping, marketing a product and greenhouse technologies. Agriculture power mechanics class students learn about land and farm equipment management. All classes have an emphasis on sustainable agriculture practices.

7. Describe how outdoor learning is used to teach an array of subjects in contexts, engage the broader community, and develop civic skills. (200 word max)

Outdoor learning can be used to teach just about anything. At our school, outdoor learning is not limited to the agriculture classes. This past semester a livestock barn was built on the campus. Within the livestock barn is a hay loft for storage. Before ordering hay it was crucial to know how many hay bales would fit into the loft. Our math class went to the barn, climbed into the loft, took measurements and calculated the number of bales that would fit in the barn. Our chemistry classes built and planted raised bed gardens and monitored growth of fall crops using different types of compost. On a different note, our campus itself engages the broader community and develops civic skills. Every day people from all walks of life choose to visit the school and learn about the programs and green technologies. Any visitor has the option to take part in the campus. For example, visiting school groups often choose to participate in a “where your food comes from” lesson. They tour the gardens and greenhouse and see the fresh, local produce they eat every day in a very different context-growing.

8. Describe your partnerships to help your school and other schools achieve in the 3 Pillars. Include both the scope and impact of these partnerships. (Maximum 200 words)

We have developed partnerships with the University of Kentucky cooperative extension services on many levels. Extension aids LTAF in continuing agricultural education while LTAF aids Extension in continuing green technologies education. Extension agents from across the state have visited LTAF to learn about the programs and the green design. Another local partnership is with environmental nonprofit Bluegrass PRIDE (BGP). BGP educators visit LTAF to teach students the importance of recycling, composting and waste management which are all crucial components in sustainability. Our Governor’s Garden also provides students with unique learning opportunities from trainings provided by the Department of Agriculture in Frankfort to the community outreach through donation and Farm to School efforts.

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

The most recent addition at LTAF is the option for an Agricultural Communication internship. These students learn about every agricultural program offered, academic courses offered, special opportunities for other schools/groups or community members and are trained in public relations so that they may teach others about these programs and opportunities. They also take part in many of the unique initiatives such as the Governor’s garden and native pant program. They serve as ambassadors for the school and visit many other places to promote the school and its initiatives such as science night at other schools, sustainability fairs and more.

10. Submit photos or video content, if desired.

Photo: Students taking part in outdoor educational activities in front of equine barn/arena that holds 91kw of photovoltaic solar panels.

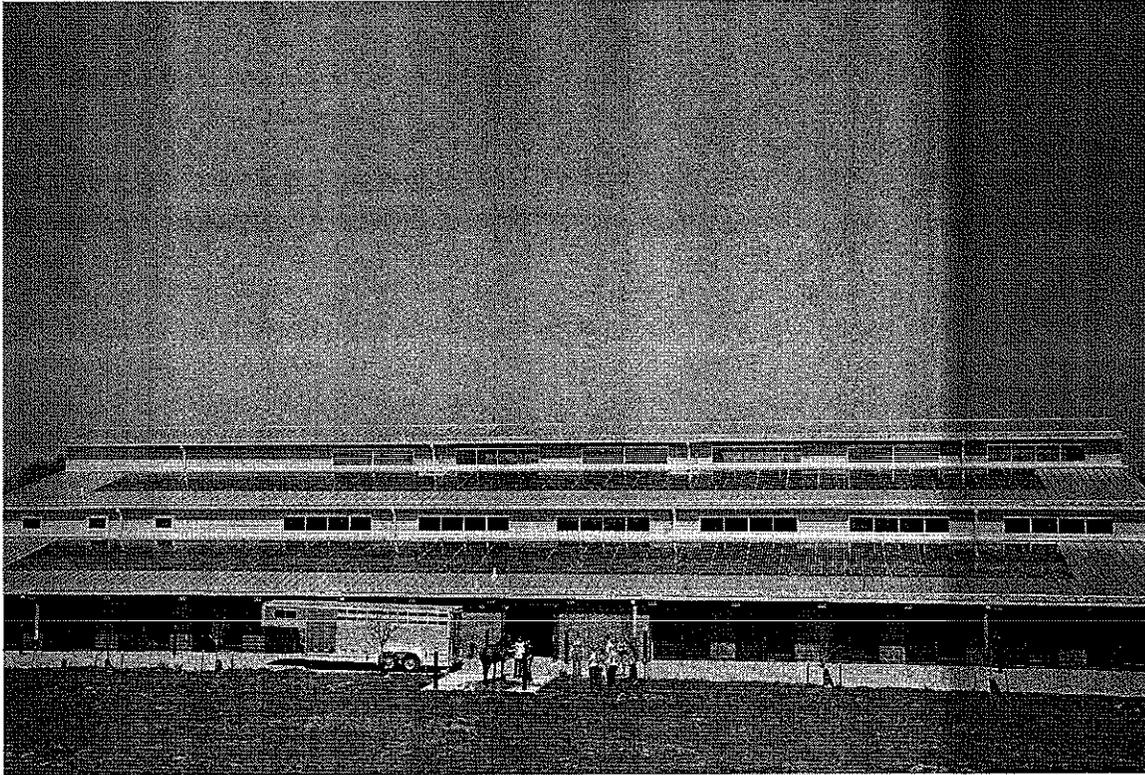


Photo: Plant and Land Science student harvesting tomatoes.



Photo: Deb Larkin of Bluegrass Pride talking recycling in an all school assembly.

