



## 2015-2016 School Nominee Presentation Form

### ELIGIBILITY CERTIFICATIONS

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#### School and District's Certifications

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

1. The school has some configuration that includes grades Pre-K-12.
2. The school has been evaluated and selected from among schools within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental education.
3. Neither the nominated public school nor its public school district is refusing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review. The Department of Defense Education Activity (DoDEA) is not subject to the jurisdiction of OCR. The nominated DoDEA schools, however, are subject to and in compliance with statutory and regulatory requirements to comply with Federal civil rights laws.
4. OCR has not issued a violation letter of findings to the public school district concluding that the nominated public school or the public school district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
5. The U.S. Department of Justice does not have a pending suit alleging that the public school or the public school district as a whole has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
6. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the public school or public school district in question; or if there are such findings, the state or public school district has corrected, or agreed to correct, the findings.
7. The school meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

### U.S. Department of Education Green Ribbon Schools 2015-2016

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Public  Charter  Title I  Magnet  Private  Independent  Rural

Name of Principal: Ms. Amber Catron

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

Official School Name: Russell Cave Elementary School

(As it should appear on an award)

Official School Name Mailing Address: 3375 Russell Cave Road

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

County: Fayette County State School Code Number \*: 010

Telephone: 859-381-3571 Fax:

Web site/URL: [www.russellcave.fcps.net](http://www.russellcave.fcps.net) E-mail: [amber.catron@fayette.kyschools.us](mailto:amber.catron@fayette.kyschools.us)

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

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

Signature on File

Date: 02/01/2016

(Principal's Signature)

Name of Superintendent: Mr. Manny Caulk

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



District Name: Scott County

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

Signature on File \_\_\_\_\_ Date: 2/1/16

(Superintendent's Signature)

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

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

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

Name of Nominating Agency: Kentucky Department of Education

Name of Nominating Authority: Ms. Calleen T. Yett

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

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

Signature on file \_\_\_\_\_ Date: 02/01/2016

(Nominating Authority's Signature)

### **SUMMARY AND DOCUMENTATION OF NOMINEE'S ACHIEVEMENTS**

Provide a coherent summary that describes how your school is representative of your jurisdiction's highest achieving green school efforts. Summarize your strengths and accomplishments in all three Pillars. Then, include concrete examples for work in every Pillar and Element. Only schools that document progress in every Pillar and Element can be considered for this award.

### **SUBMISSION**

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 [ed.green.ribbon.schools@ed.gov](mailto:ed.green.ribbon.schools@ed.gov) according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509

Expiration Date: March 31, 2018

### **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.

**School Contact Information**

School Name: Russell Cave Elementary

Street Address: 3375 Russell Cave Road

City: Lexington State: KY Zip: 40503

Website: www.russellcave.fcps.net Facebook page: https://www.facebook.com/Russell-Cave-Elementary-School-978058362238363/timeline/

Principal Name: Amber Catron

Principal Email Address: amber.catron@fayette.kyschools.us Phone Number: (859) 381-3571

Lead Applicant Name (if different): Julie Jones

Lead Applicant Email: julierae.jones@fayette.kyschools.us Phone Number: (859) 381-3575, ext. 26241

Level <input type="checkbox"/> Early Learning Center <input checked="" type="checkbox"/> Elementary (PK - 5 or 6) <input type="checkbox"/> K - 8 <input type="checkbox"/> Middle (6 - 8 or 9) <input type="checkbox"/> High (9 or 10 - 12)	School Type <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private/Independent <input type="checkbox"/> Charter <input type="checkbox"/> Magnet	How would you describe your school? <input type="checkbox"/> Urban <input type="checkbox"/> Suburban <input checked="" type="checkbox"/> Rural	District Name <u>Fayette</u> Is your school in one of the largest 50 districts in the nation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Total Enrolled: <u>308</u>
Does your school serve 40% or more students from disadvantaged households? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	% receiving FRPL <u>95%</u> % limited English proficient <u>59%</u> Other measures _____	Graduation rate: <u>N/A</u> Attendance rate: <u>95.9%</u>	

**Application Scoring Rubric:**

<u>ED-GRS Pillars and Elements</u>	<u>Points</u>
Cross-Cutting Question: Participation in green school programs	5 points
Pillar 1: 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	5 points



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Grounds	
Element 1C: Reduced waste production Waste Hazardous waste	5 points
Element 1D: Use of alternative transportation	5 points
Pillar 2: 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: Health and Wellness Coordinated School Health Fitness and outdoor time Food and Nutrition	15 points
Pillar 3: 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

*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.

Throughout this application, we would like to highlight Russell Cave Elementary's efforts to become a green and healthy school. We created a Green Team at our school to lead efforts in reducing our environmental impact and costs. These students audit our energy usage at the beginning of the year and then plan and implement various initiatives to improve in areas they identify as areas for growth. We have been successfully recycling for several year now. We regularly recycle more than we throw away to the landfill. We reduced our copier usage by using funds to purchase composition notebooks for all students. Our new goal is to reduce paper usage within our school. Fifth grade students will be



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piloting a digital notebook system for their laptops, currently at a 1:1 ratio, in January. We will then add on additional grade levels one at a time, with 100% participation by May. Of course, kindergarten and first grade usage will be limited compared to older students. The Green Team also keeps “thank you” and “oops” post-it notes on them at all times during the school day within team-issued waist bags. As they travel throughout the school during the day, they can leave a thank you note to classrooms that have left their room and turned off lights, projectors, closed their door, etc. If they come across a classroom that forgot one of these steps, they leave an oops note for that classroom with a reminder of how to improve. One a month our school cafeteria has a low-energy day. On this day, the cafeteria does not use the ovens and other equipment to provide lunch. Instead they provide sack lunches for the students as well as turning the lights off in the cafeteria.

Russell Cave has implemented several health initiatives to improve student and staff health. We have a part-time school nurse that works with teachers and families to help with students needs. Our physical education teacher has formed a student and staff health committee. Students and staff on this team brainstorm and implement healthy activities within the school. They also monitor our school’s health policy, which stipulates the amount of activity our students receive and the types of food that is given to them. Activities have included Wellness Wednesday that allows extra movement breaks in the gym and activities ideas presented by the PE teacher during the morning news show. We also have physical activity breaks during staff meetings. Teachers are being trained and given access to GoNoodle.com so they can provide more activity variety and a motivational system during their daily movement breaks. Our students receive physical education class, health class, and a guidance class for emotional and social well-being. Community partners have been used for additional services like the College of Dentistry and Student Athletes.

Our school’s science lab provides environmental lessons to all students throughout the year and also brings in many community partners like University of Kentucky’s Center for Applied Energy Research, College of Agriculture, and Bluegrass Greensource. Lessons include water quality and conservation, human impact on the environment, and energy education and sustainability. Partnerships are chosen carefully and are only implemented because of the wide scope impact that they have. For example, all students’ kindergarten through fifth were taught lessons about where our food comes from by Green Team members after they completed a course with the College of Agriculture. Fourth Grade students complete a semester-long unit on energy and work with scientists from the Center for Applied Energy Research to learn about current green technologies. They then design and build an original product that includes more than one energy source, conserves energy in some way, and fills a niche in the marketplace. Last year, an example of a product was a sports hat with rotating pompoms that used electrical energy via rechargeable batteries with an energy saving switch. Our goal is to educate students to become innovative, creative thinkers that are knowledgeable in energy usage and conservation.

1. Is your school participating in a local, state or national school program, such as EPA ENERGY STAR Portfolio Manager, EcoSchools, Project Learning Tree, or others, which asks you to benchmark progress in some fashion in any or all of the Pillars? [State may wish to add other program names to this list]

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



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EPA ENERGY STAR – ENERGY STAR School

E=USE<sup>2</sup> Program – Gold Level

Kentucky NEED (National Energy Education Development) Project Participants

Project Learning Tree

Kentucky Green & Healthy Schools

Green Apple Day of Service participant

Flying Wild

Bluegrass Greensource – Live Green Lexington Water, Waste, & Energy Partner

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

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

EPA ENERGY STAR – 2012

Fayette County Public Schools (FCPS) – Super Saver Award – 2012, 2013, 2014

Recycle Bowl– 2010 First place winner, 2013 runner-up. Participant 2010-2015.

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

#### Energy

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

(X) Yes ( ) No Percentage reduction: 45.4% Over (m/yy - m/yy): 2009-2015

Initial GHG emissions rate (MT eCO<sub>2</sub>/person): 2.11 MT eCO<sub>2</sub>/person

Final GHG emissions rate (MT eCO<sub>2</sub>/person): 1.15 MT eCO<sub>2</sub>/person

Offsets: N/A How did you calculate the reduction? The greenhouse gas emissions rate was calculated by inputting the energy data for RCES into the *Greenhouse Gas Equivalencies Calculator* on the EPA website. The calculator converted annual kilowatt-hours into Metric Tons of CO<sub>2</sub>, which I then divided by the number of students at the school. The utility bill data is kept track of using the *SchoolDude Utility Direct* platform.

2. Do you track resource use in EPA ENERGY STAR Portfolio Manager? (X) Yes ( ) No



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If yes, what is your score? 76 If score is above a 75, have you applied for and received ENERGY STAR certification? (X) Yes ( ) No Year: 2012

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

Current energy usage (kBtu/student/year): 5712 kBtu/student/year

Current energy usage (kBtu/sq. ft./year): 41.8 kBtu/sq.ft./year

Percentage reduction: 49.3% over (m/yy - mm/yy): 07/2009 – 06/2015

How did you document this reduction? Utility bills for all schools are tracked using the SchoolDude Utility Direct online platform. Russell Cave Elementary is an "all electric" building, therefore it has no sources of energy outside of electricity. A number of factors including a renovation, and staff and students with a passion for environmental consciousness helped this school reduce their energy consumption greatly.

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

On-site renewable energy generation: 0% Type N/A

Purchased renewable energy: 0% Type N/A

Participation in USDA Fuel for Schools, DOE Wind for Schools or other federal or state school energy program:

5. In what year was your school originally constructed? 1926

What is the total building area of your school? 41,000 square feet

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: N/A

Certification and year received: N/A Total constructed area: N/A

For renovated building(s): Percentage of the building area that meets green building standards: 0% Certification and year: 0%

Total renovated area: 41,000 square feet (new lighting, HVAC, increased square footage for media center, other areas). Every building in our district is renovated to be able to achieve Energy Star status.

### Water and Grounds

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





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Average Baseline water use (gallons per occupant): 1484 gallons/occupant/year

Current water use (gallons per occupant): 999 gallons/occupant/year

Percentage reduction in domestic water use: 48.5%

Percentage reduction in irrigation water use: No domestic water used for irrigation

Time period measured (mm/yyyy - mm/yyyy): 07/2009 – 06/2015

How did you document this reduction (ie. ENERGY STAR Portfolio Manager, utility bills, school district reports)?: All utility bills are monitored using the *SchoolDude Utility Direct* platform.

8. What percentage of your landscaping is considered water-efficient and/or regionally appropriate?: 100% Types of plants used and location: Native plants, low-maintenance/drought-resistant plants, and vegetables and herbs have been used in our outdoor classroom. Plants that are well-adapted to Kentucky's climate were chosen and very little watering is needed. During periods of less rain, students use water from our two large-size rain barrels. We have never had to deal with empty rain barrels. Examples of plants include: Black-Eyed Susan, Echinacea, Butterfly Milkweed, Lemon Balm, and Rosemary.

9. Describe alternate water sources used for irrigation. (50 words max or whatever word max you indicate to your applicants)

Even though the landscaping was planted without the expectation of having extra irrigation, our students requested to add a school garden to grow produce in the center courtyard, so we added rain barrels to capture rainwater that could be used for watering the garden when appropriate.

10. Describe any efforts to reduce stormwater runoff and/or reduce impermeable surfaces. (50 words max) In addition to the rain barrels used to capture rain runoff from the roof, we removed an entire impervious sidewalk and replaced it with a permeable surface to reduce stormwater runoff. Appropriate drainage systems were also put in place to mitigate runoff from the parking lot.

11. Our school's drinking water comes from: (X) Municipal water source ( ) Well on school property ( ) Other: \_\_\_\_\_

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

A reduced pressure backflow preventer is installed at the domestic water entrance. This device allows a one way flow of water and prevents the reverse flow of polluted water from entering into the potable water supply. A water storage tank is provided to flush toilets and urinals (non-potable water).

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





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Lead free plumbing components were utilized during construction.

14. What percentage of the school grounds are devoted to ecologically beneficial uses? (50 word max)  
The percentage of school grounds devoted to ecologically beneficial uses is equal to approximately 15%. A courtyard in the center of the school is used as a vegetable garden, which the students help maintain.

### 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): 3,200 cubic yards (8 cubic yards x 20 x 20% full when emptied)

B - Monthly recycling volume in cubic yards (recycling dumpster sizes(s) x number of collections per month x percentage full when emptied or collected): 5,120 cubic yards (8 cubic yards x 8 x 80% full when emptied)

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): Some classrooms compost their veggie remains from our healthy snack program and plant waste from cutting back plants is compost but the amount varies and is minimal.

Recycling Rate =  $((B + C) \div (A + B + C) \times 100)$ : 62

Monthly waste generated per person =  $(A/\text{number of students and staff})$ : 8.963 cubic yards per month (3,200 cubic yards/357 students and staff)

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: 0%

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

Flammable liquids	Corrosive liquids	Toxics	Mercury	Other:
NA	NA	NA	NA	NA

How is this measured? NA

How is hazardous waste disposal tracked? NA



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

For biohazard materials (ie lab dissections), classroom collection receptacles are provided, collected by district officials and properly disposed of in a medical waste incinerator. Our Risk Management department conducts an annual sweep of all classroom, office/student occupant spaces to eliminate any potential hazardous substances including cleaning solutions and air fresheners not listed on the approved School Supply List. We have classroom programs in place that collects recycling; students are responsible for collecting the recycled materials from each classroom and disposing of them into the school-wide recycling bin. The students collect the materials on Thursday of each week.

18. Which green cleaning custodial standard is used?

GS-42 Our school has a chemical management program that includes a 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 certified. Our pest control program is green certified as well.

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

Green Seal (3<sup>rd</sup> party certified green cleaning standard)

### 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)

walk 0% (Our school is located in the country. There are no walkers due to distance to houses.)

bike 0% (Our school is located in the country. There are no bikers due to distance to houses.)

bus 92%

car riders 8%

\* % of car riders carpool 60%

How is this data calculated? (50 word max)

To calculate this data we took the number of students for each of these categories and then divided it by the total number of students in our building. Example: bus riders (283 students/ 308 total students=92%)

20. Has your school implemented?



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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.

[N/A] Safe Pedestrian Routes to school or Safe Routes to School

Describe activities in your safe routes program: Our school is located in the country, too far from housing for students to walk or bike.

21. Describe how your school transportation use is efficient and has reduced its environmental impact. (50 word max) Our school's Green Team members have spoken individually with all parents that pick students up after school about not idling. Also, our district does not allow buses to idle in the bus lane while waiting for students to board.

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

Our efforts are led by our Green Team. Student leaders from each classroom, grades two through five, learning and leading, meeting daily to work on projects (e.g., school recycling, teaching in classrooms, leading energy/waste audits, Kentucky Green and Healthy Schools projects). We have an outdoor classroom (vegetables, bird sanctuary, native flowering rock garden), and many community partners (University of Kentucky Center for Applied Energy Research, UK College of Agriculture, Bluegrass Greensource). We work with many community groups for single projects (Food Chain-aquaponics system, CDP Engineers-Green Apple Day of Service, and more than 20 other groups as classroom/family information night speakers.

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

#### **Environmental Health**

1. Describe your school's Integrated Pest Management efforts, including IPM/green certifications earned, routine inspections, pest identification, monitoring, record-keeping, etc.:

Our school has adopted an integrated pest management plan to reduce and/or eliminate pesticides. Pest control policies, methods of application, and posting requirements are provided to parents and school employees. Copies of pesticides labels, copies of notices, MSDS and annual summaries of pesticide applications are all available and in an accessible location. Our school prohibits children from entering a treated area for at least 8 hours after the treatment, or longer if required by the pesticide label. Our integrated pest management program consists of good housekeeping techniques, reducing clutter, and preventative maintenance that controls entry. If further action is required we use baiting and trapping to



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remove a pest, which is provided by our contracted pest control company (Terminix). Terminix provides the routine inspections, pest identifications, and monitoring of traps. If any pest control service involves anything besides baiting and trapping, the school provides a letter home to parents and keeps a copy of what insecticides were used on file. Our priority is to conduct pesticide treatment when school is not in session. We have copies of all work orders generated by the school's requesting pest control services.

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

1.5 gallons/yr—we are already utilizing the bare minimum necessary. Our goal is for this not to increase in coming years

3. 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) \_\_\_\_\_

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.

\_\_\_\_\_

1. Describe how your school controls and manages chemicals routinely used in the school to minimize student and staff exposure. (100 word max)

Stock concentrations are locked in chemical stockroom, students only use diluted versions of chemicals. We follow all MSDS and FCPS guidelines on storage, usage, and disposal. Please see above for actions to minimize student/staff exposure to pesticides. Our kitchen All Purpose and Pot and Pan are Green Seal Certified, and the Envirowash carries the EPA's Design for the Environment Label. Both Green Seal, and the EPA's DFE Label are widely recognized as being generally safer/more user and environmentally friendly.



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5. 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 school guidelines.

6. 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. Our classrooms are routinely monitored for CO<sub>2</sub> and RH levels. If the RH level is above 60% or a building occupant raises concern about RH, additional air mold assessments are conducted.

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

The school no longer has a boiler, and has no chemistry labs as it is an elementary school, but local exhaust systems do exist throughout the kitchen area.

8. 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 building management system monitors the ventilation system and filter status that will alert Fayette County Public Schools Maintenance when the unit is not functioning properly or if filters need to be cleaned and replaced.

9. 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) All spaces were designed to meet ASHRAE Standard 62.1-2010 (Ventilation for acceptable indoor air quality.) RH is routinely monitored and any room with RH levels above 60% is further investigated and mitigated.

10. 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

11. 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 or whatever you choose to make them!)

Our school participates in the USDA's Healthier US School Challenge. Level and year: Our school cafeteria manager has registered our school and will begin working through the program.



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

Our school has an on-site food garden.

We have 8 raised beds and grow herbs and veggies from spring through fall.

Our school garden supplies food for our students in the cafeteria, a cooking or garden class or to the community. The food we grow is sent home with students for their families. We have also donated surplus crops to community groups (e.g., church-run soup kitchen) during the summer months.

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

Our students receive 55-110 minutes per week (depending on the rotation schedule) of physical education in the gym. This time includes fitness activities, sport games, organized games, etc. Our students receive 15 minutes per day (75 minutes/week) of recess (playground time, organized game, or indoor games like "Just Dance.") In addition, students take movement breaks throughout the day that might include stretching or walking in the gym or "Go Noodle!" activities on-line.

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

Health measures are integrated into assessments. Within physical education classes

At least 50% of our students have participated in the EPA's Sunwise (or equivalent program). Our new physical education teacher has the kit and 100% of our students will be participating in this program starting spring 2016.

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

Percentage: \_\_\_\_\_ Type: \_\_\_\_\_

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

We have a large yard with recess equipment, a basketball court, walking track, and soccer goals. Students also spend time in our outdoor classroom/garden that contains raised food beds, a bird-feeding area, and a native garden.

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

We have a school wellness policy that specifies the minimum amount of physical activity our students must have as well as rules on the types of snacks that can be provided and when. Our school receives a grant that provides healthy snacks (veggies and fruits) two times per week. Our morning show includes



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health tips. Our students receive 30 minute lessons once every sixth day on social, emotional, personal, and physical health by our guidance or physical education teacher. Families receive a calendar each month with daily fitness challenges. Students that complete a specified percentage of activities during the month receive recognition.

Coordinated School Health, Mental Health, School Climate, and Safety

14. Does your school use a Coordinated School Health approach or other health-related initiatives to address overall school health issues? ( X ) Yes ( ) No

If yes, describe the health-related initiatives or approaches used by the school:

Our child guidance teacher and school social worker communicate with outside agencies (Impact, Child and Family Wellness Center, Kentucky Child Development Center). We also have a school nurse, a partnership with the University Of Kentucky College Of Dentistry to provide dental care for our students.

15. Does your school partner with any postsecondary institutions, businesses, nonprofit organizations, or community groups to support student health and/or safety? ( X ) Yes ( ) No

If yes, describe these partnerships:

We have a partnership with the University of Kentucky's College of Agriculture. They provide gardening and health lessons using the "Can you Dig It?" program with representatives from each grades two through five. These students then teach mini-lessons to all classes kindergarten through five. We also have a partnership with University of Kentucky athletics department. They send student athletes for a program called CATS Character with our third grades that promote positive health and social wellness. The University of Kentucky provides dental services for our qualified students twice per year.

16. Does your school have a school nurse and/or a school-based health center? ( x ) Yes ( ) No

17. Describe your school's efforts to support student mental health and school climate (e.g. anti-bullying programs, peer counseling, etc.):

Our classroom teachers lead class building activities at least once per week. We also have opportunities for students to participate in extra-curricular clubs (dance, jump rope, puppetry, drama, chorus, academic team, technology, science, energy club) so students can build friendships outside of their own classrooms while exploring their own interests. Our guidance counselor and school social worker both work with students in small and individual group settings on an on-going or as needed basis, depending on the students (social skills groups, peer mediation, friendship/self-esteem groups, anxiety groups, divorce groups, and individual counseling guidance). Our guidance counselor leads 30 minute lessons with every grade every 12 school days. These classes focus on a variety of character-building, anti-bullying, and self-esteem topics.





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### **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)

All students are taught science using the Next Generation Science Standards. Many environmental and sustainability concepts are covered through the use of these standards. Environmental and sustainability concepts taught include the impact of humans on the environment, ways to reduce the impact on the environment, energy and fuel are derived from the earth and the affect using natural resources has on the environment. We also use our district's program called E=USE<sup>2</sup> (Education Leads to Understanding Sustainability, Energy, and our Environment), which has a mission to "empower students to create change through enduring improved sustainability by equipping school and community stakeholders with the tools and knowledge to preserve our natural and fiscal resources."

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

All students, kindergarten through fifth grade, are taught science (including environmental and sustainability concepts) through an integrated approach. The classroom teacher and science lab teacher co-teach hands-on lessons in the science lab and the classroom teachers lead literacy components in the classroom. Often, topics are also extended into math and social studies as well. For example, math and science time is used to plan our square foot garden beds. Our fifth graders learn about the importance of earth's resources to all groups that settle in an area over time.

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

Students are assessed in a variety of ways but primarily through project-based assessments and/or written explanations. For example, kindergarten students learn about ways we can positively impact our local environment in the science lab and then make recycled art (using items that would have been sent to the landfill) during art class. Their work and understanding is scored using a combined rubric. Fourth grade students participate in game-based learning about the benefits and harmful effects of producing and transporting biofuels with researchers from the University of Kentucky's Center for Applied Energy Research and then are assessed on their understanding by constructing an explanation that includes a claim, evidence, and reasoning.

Students evidence high levels of proficiency in these assessments. (100 word max)

Our students exhibit high levels of proficiency on these assessments, based on progress monitoring data completed by teachers. Students that do not meet expectations are often re-taught and re-assessed.



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

Our teachers have participated in a variety of professional development sessions including promoting wellness, energy reduction in the school setting, and school gardening. Additionally, our specials teachers have formed professional learning communities to plan STEM lessons that occur in all classrooms, not just one lab. Many of these STEM lessons are related to sustainability.

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: \_\_\_\_\_

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)

As a school-wide STEM-focused school, we use themes with “big questions” for students to consider to help integrate and unite our individual standards. Examples include “Russell Cave Shark Tank” that requires students to develop and market a product that requires at least two forms of energy transfer, one of which must be renewable, that helps fill a hole in the market and solves human problems. Another example is the creation of digital displays of famous pieces of landscape art with written, labeled information about how these spaces can be managed with environmentally friendly practices.

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

We have a long-standing partnership with the University of Kentucky’s Center for Applied Energy Research. Our students build relationships with researchers from the lab and are exposed to the most current studies and career opportunities within the energy research setting and industry. We also host a family information night in which we have many groups share activities. We have a polar bear/environmental impact researcher, engineers, scientists, water company representatives, air quality representatives, and other professionals within this field attend with high attendance rates and reviews by our families.

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

Our students and staff participated in a national Green Apple Day of Service, which is a community service day sponsored by the US Green Building Council. Students worked alongside volunteer community members to complete projects in our native pollinator garden. We completed a limestone pathway around our flowering berms, added two large rain barrels with permeable paver foundations underneath each, and completed various maintenance tasks around the entire garden space. Our community members included our students and families, staff members, district school staff members, local high school students, a garden club, and individual community members. Our event was



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recognized at the national level by the US Green Building Council as an event of distinction and by our local mayor's office as an official "Russell Cave Day." We regularly work with community volunteers (local high school students, college students, etc.) in our garden space so students learn to value the importance of community involvement.

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

Our school's outdoor classroom is used by all grade levels. Our kindergarteners recently completed a scavenger hunt in this space, looking for ways we help meet the basic needs of plants and animals. Our first graders studied the structures of plants using the native flowers we have grown. Second grade students learned about the ways our native flowers are pollinated by animals, wind, and water. They also designed and constructed hand-pollinators. Our third graders use this space to observe and compare the life cycles of various organisms. Fourth graders searched for evidence of erosion. Fifth graders labeled the four Earth spheres existing in our garden and the interactions amongst them. These are just a few examples as the use of our outdoor classroom is woven into so many lessons for our students throughout the entire school year.

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

Our students are encouraged to take ownership of the outdoor classroom space as a community learning area that they must help maintain. They enjoy when lessons allow them to go outside and learn math and science and writing and social studies. Fifth graders can learn about the movement of matter among plants, animals, decomposers, and the environment as well as the resourcefulness of early Native Americans like the planting of the "three sister" crops, while incorporating math skills like measurement and social skills like cooperation and perseverance. They see community members that volunteer in our space as mentors and models of good citizenship. It is an invaluable part of our teaching and learning.

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)

### Environmental Literacy:

- Bluegrass Greensource-providing lessons and activities that promote environmental sustainability; provided to students kindergarten through fifth
- University of Kentucky Center for Applied Energy Research-lessons and activities that lead to an understanding of the most current issues and studies in the field of energy research, most specifically sustainable and renewable practices; provided to our fourth grade students
- Russell Cave Teacher-ESL teacher that has a masters in Environmental Literacy and Leadership and plans lessons for our ESL students, which is a large population in our school across all grade levels



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- University of Kentucky College of Agriculture-works with our second through fifth grade Green Team representatives to learn about gardening practices and plant basics; students then plan lessons to teach to all students kindergarten through fifth grade in a thirty minute lesson

### Energy Efficiency:

- Fayette County Schools-Our Green Team members follow the district's E=USE<sup>2</sup> program and use school data to teach our staff and students about ways to better conserve energy within our school, promote good health through nutrition and exercise, and the importance of respecting the value and beauty of our local environment

### Student Wellness:

- University of Kentucky Athletes-lead activities with our third graders to promote having good character in our everyday lives
- University of Kentucky College of Dentistry-provide dental services to students in need grades kindergarten through fifth twice a year
- Farm to School-provides learning activities that promote overall wellness, led by our school health teacher with all students kindergarten through fifth grade

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)

We have many community partners that work with students within classrooms and within clubs to educate our students and staff about green initiatives, energy concepts, personal wellness, and new green technologies. Our Green Team, with representatives from every second through fifth grade class, complete the district's E=USE<sup>2</sup> program (sustainability and energy usage lessons) and then serve as leaders within their own classrooms. Recycling is collected from room/office on a weekly basis. A weekly trophy is given to outstanding classes. Our outdoor classroom is used across the curriculum. Our school has chosen to not have a STEM lab. All teachers are expected to incorporate these areas into their lessons—science, technology, engineering, math, and also the arts. The specials team facilitates these collaborative efforts across the grade levels and work together to create common STEAM units together as well. We are now striving to reduce paper use. Our students have composition notebooks now, which was an effort to reduce copier usage. Next, we will begin piloting a digital note booking system in January. This will significantly reduce paper usage and is a great way to further our use of the laptops in our classroom, which is currently at a 1:1 ratio (laptops: students). This is an example of how Russell Cave Elementary is striving to continue improving in the area of sustainability and conservation.

10. Submit photos or video content (with appropriate permissions), if desired.



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(Photos attached below)

Our Outdoor Classroom Space:

