

Kansas Green Ribbon 2012 Nominee



Brookwood Elementary School
Unified School District 512—Leawood, KS

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PART I - ELIGIBILITY CERTIFICATION

U.S. Department of Education
Green Ribbon Schools 2012

For Public Schools only: (Check all that apply) [] Charter [] Title I [] Magnet [] Choice

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

Official School Name: Brookwood Elementary
(As it should appear in the official records)

School
Mailing Address: 3411 W. 103rd Street
(If address is P.O. Box, also include street address.)

Leawood KS 66206
City State Zip

County Johnson State School Code Number* 8790

Telephone (913) 993-2500 Fax (913) 993-2599

Web site/URL www.smsd.org E-mail bkpendla@smsd.org

I have reviewed the information in this application, including the award and eligibility requirements on page 2-4, and certify that to the best of my knowledge all information is accurate.

Teddi Pendland Date 3-20-12
(Principal's Signature)

Name of Superintendent* Dr. Eugene Johnson
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

District Name* Shawnee Mission School District Tel. (913) 486-9847

I have reviewed the information in this application, including the award and eligibility requirements on page 2-4, and certify that to the best of my knowledge all information is accurate. I concur that this is one of the highest performing green school applicants in our state.

Gene Johnson Date 3-20-12
(Superintendent's Signature)

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

Brookwood Elementary School

Brookwood Elementary is located in Leawood, Kansas and is part of the Shawnee Mission School District. We are a school of 380 students. Starting in 2010, Brookwood ramped up efforts to make a positive impact on our environment. We formed the HiP Team (I can make a Healthy Planet), a PTA committee, staff, and student group, which provides direction and the muscle to implement a variety of environmentally friendly programs and initiatives. We feel it is our responsibility to lessen our environmental impact, but also to inspire and motivate our students and the community-at-large to become more responsible stewards of our environment.

Educators integrate environmental education into the curriculum throughout all grade levels – in all subject areas. Educators integrate environmental education into English Language Arts and Science lessons. Educators and students have access to the wide variety of environmental fiction and non-fiction books in our library. Our art teacher promotes using art materials made from reused materials on projects. Students engage in the hands-on application of the recycling efforts in each classroom and are responsible for ensuring paper and co-mingle recycling is implemented. Our outdoor gardens are used both as outdoor learning labs and as community service projects. We have established worm composters in some classrooms to reduce waste and engage and inspire young people in science and environmental education. Our HiP Team students meet regularly for a variety of environmental education experiences. The students have engaged in activities such as working in the gardens, community stream cleans, making dog toys from reused material and cleaning up litter on the school grounds. The HiP Student Team has grown from 15 students the first year to over 50 in its second year. Multiple parent volunteers assist with student activities. In addition, our annual family Math and Science night was themed around Environmental Education and incorporated many green community members and plenty of opportunities for hands-on environmental experiences. Brookwood has held a variety of school-wide green-themed assemblies and presentations. Finally, a large indoor sculpture is being created by a local artist from reused materials. He engaged students in hands-on workshops where they worked with reused metal. This will be used for the sculpture.

Waste reduction is a focus at Brookwood. We compost all food, paper products, and milk cartons in the kitchen and cafeteria – we composted 23 tons last year. Daily waste has been reduced from eight bags of trash to less than one in the cafeteria and the kitchen has recently achieved zero-waste status. In addition, all paper, cardboard, paperboard, aluminum cans, tin cans and all plastic is recycled throughout the school – we recycled nearly 40 tons last year. Brookwood actively promotes and practices reducing the amount of paper used. Email and web-based communications are the norm with parents and staff, paper is reused, and staff is encouraged to reduce the number of classroom photocopies. In addition, we recycle crayons (over 30 pounds last year), inkjet and toner cartridges, cell phones, laptops, and batteries. Our PTA supports our green initiatives and actively encourages all room parents to implement green

classroom parties and funded the installation of energy efficient hand dryers in the bathrooms. Through on-going waste audits, the Johnson County Environmental Department has determined Brookwood has reduced waste to the landfill by approximately 90%. We are currently focusing efforts on streamlining our cafeteria/kitchen composting and recycling so we can lower the associated fees.

Brookwood works closely with SMSD's Energy Specialist to reduce our use of energy. He assists the school with energy audits and identifying ways to conserve energy. The staff and students are focused on turning out unnecessary lights and unplugging/turning off items. Due to our efforts, Brookwood is now eligible to apply to become an EPA Energy Star Building.

Sharing our success with students, parents and the community-at-large is a high priority. We communicate via a weekly school e-newsletter, a HiP Team Facebook page and school announcements to share information about upcoming events, school initiatives and community activities to parents and staff. We also present and participate in community and national events to share our Brookwood HiP Team story.

Our HiP Team is fortunate to have wonderful administrative, staff, student and community support. Our principal, Teddi Pendland, champions our green initiatives and fully supports environmental education throughout the school. Our staff integrates environmental education in the classroom and we have a cadre of over 20 parent volunteers who assist the Team in different capacities. We look forward to many opportunities to be "more green" as a school by motivating and inspiring our young people and their families to incorporate additional green activities into their daily lives.

PART III – DOCUMENTATION OF STATE EVALUATION OF NOMINEE

III.A – Nomination Committee Summary

The Kansas Green Ribbon Review Committee recommends Brookwood Elementary School for a Green Ribbon Award as they have a solid foundation in all three pillars represented by this award. Brookwood Elementary has a solid and comprehensive program with strong attention to the importance of getting children outdoors and clear and strong connections to the curriculum to outdoor learning, particularly with "green STEM" activities. The Brookwood application stood out in demonstrating a whole school commitment to environmental education. They have an impressive waste diversion of 90% and strong activity toward getting more students walking to school including safe house and walk to school days.

Green School Programs and/or Awards for Environmental and Sustainability Efforts(5)	Pillar 3A: Interdisciplinary learning about the key relationships between dynamic environmental, energy and human systems (20)	Pillar 3B: Use of the environment and sustainability to develop STEM content knowledge, and thinking skills (10)	Pillar 3C: Development and application of civic engagement knowledge and skills (10)	Pillar 2A: An integrated school environmental health program (15)	Pillar 2B: High standards of nutrition, fitness, and quantity of quality outdoor time (10)	Pillar 1A: Zero greenhouse gas emissions • Energy • Buildings (15)	Pillar 1B: Improved water quality, efficiency, and conservation • Water • Grounds (5)	Pillar 1C: Reduced waste production • Waste • Hazardous waste (5)	Pillar 1D: Use of alternative transportation to, during, and from school (5)	TOTAL
4.33	16.00	9.00	7.75	13.00	6.50	7.25	2.00	3.50	3.75	73.08

III.B – Application and Supporting Materials

Kansas translated the application into a survey that allowed responses to be collected online. A link to the survey and the workbook of resources that were provided to support those applying can be found at <http://www.kansasgreenschools.org/kansas-green-ribbon-schools>. The following information comes directly from the survey as it was submitted:

1. Name of School:

Brookwood Elementary

2. School Type: (check all that apply)

Elementary

3. School District Number:

SMSD #512

4. School Address:

Address: - 3411 West 103rd Street

City/Town: - Leawood

State: - KS

ZIP: - 66206.2597

Country: - USA

Phone Number: - 9139932500

5. Contact Person:

Name: - Teddi Pendland

Email Address: - teddipendland@smsd.org

Phone Number: - 9139932500

6. School Demographics--Approximately what percentage of your school's students qualify for:

Free Lunch: - 5

Reduced Lunch: - 3

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1. Learning and Environmental Literacy Element 3A: Interdisciplinary learning about the key relationships between dynamic environmental, energy and human systems What PERCENTAGE of last year's graduates scored proficient or better during their high school career on state or school:

No Response

2. Briefly describe the assessment(s):

N/A

3. Does your school or your state have an environmental or sustainability literacy graduation requirement?

No

N/A

4. Are environmental and sustainability concepts integrated throughout the curriculum?

Yes

Educators integrate environmental education into the curriculum throughout all grade levels – in all subject areas. Educators integrate environmental education into English Language Arts lessons and the literature the

Kansas Green Ribbon 2012 Nomination— Eisenhower High School

students read. Students have written letters to community members and beyond asking about their environmental conservation behaviors and attitudes. Educators and students also have access to the wide variety of environmental fiction and non-fiction books our library has available. The Brookwood art teacher promotes using art materials made from reused materials. Students engage in the hands-on application of the recycling efforts in each classroom and are responsible for ensuring paper and co-mingle recycling is implemented. In the cafeteria they actively, recycle and compost and are reminded daily of the processes and importance of sustainability. Students participate in the EarthWorks experiential learning program to learn more about the environment. We have established worm composters in some classrooms. The vermicomposters serve as both a way to reduce waste and a way to engage and inspire young people in science and environmental education. All grade levels participate in science based Discovery Labs which integrate environmental themes as the students engage in hands-on projects and activities. Our educator led HiP Team students meet regularly for a variety of environmental education experiences. Guest speakers have included Dr. Trashology of the Johnson County Environmental Department, Stan Slaughter, Hillsdale Water Quality Project, Leawood City Council Green Committee members and Fetching Dreams. In addition, the students have engaged in activities such as working in the gardens (they planted over 650 bulbs!), park stream cleans, making dog toys from reused material and cleaning up litter on the school grounds. In addition, our annual family math and science night was themed around Environmental Education and incorporated many green community members and plenty of opportunities for hands-on environmental experiences. Brookwood has held a variety of school-wide green-themed assemblies and presentations. The HiP Team's waste reduction program was introduced through a Kick-off assembly with Dr. Trashology of the Johnson County Environmental Department. Stan Slaughter (the Eco Troubadour), Eco Elvis, and the Stone Lion Puppet Theatre entertained and educated the students and staff. In addition, a large indoor sculpture is being created by the local artist, Bryan Parks, from reused materials. He engaged students in hands-on workshops where they completed reused art projects, which will eventually be used to create a large beaver (the school mascot) solely out of reused materials.

5. Advanced Placement Environmental Science

What percentage of your eligible graduates last year completed Advanced Placement Environmental Science during their school career? (indicate N/A if not applicable) - N/A

What percentage of these students scored 3 or better on the Advanced Placement Environmental Science assessment? (indicate N/A if not applicable) - N/A

6. If your school conducts environmental science, sustainability or environmental education assessments, what percentage of your students scored proficient or better on science education assessments in the last year? (indicate N/A if not applicable)

N/A

7. Are professional development opportunities in environmental and sustainability education available to all teachers at least every other year?

Yes

At the beginning of every year all educators are engaged in a school-wide green initiative professional development opportunity. The session includes updates on any new initiatives the school has adopted, a recap and highlight of all existing programs and an introduction and support training for any changes that may have occurred. The professional development session engages both veteran educators, as well as any new staff and provides them the opportunity to grow their own capacity as well as have their questions or concerns answered and explored. Throughout the year, staff meetings are used for smaller training sessions and informational sharing of content and processes that positively impact the teacher's environmental education capacity as well as the effectiveness of the school's initiatives. Professional development money is always available for educators to use for trainings of their choice, including environmental education. In addition, on-going professional support and on the job training is provided to staff as needed throughout the school year. In addition to educator professional development, the Brookwood PTA also fully supports the training of PTA

parent volunteers. Monies are budgeted and parent volunteers have attended environmental education profession development sessions to assist and support with all environmental initiatives and education efforts.

8. Does your environmental education program pay particular attention to scientific practices, such as asking questions, developing and using models, planning and carrying out investigations, analyzing and interpreting data, using mathematics and computational thinking, constructing explanations, and engaging in argument and applications based on evidence?

Yes

As part of our curriculum, scientific learning across all grade levels is approached based on scientific practices which emphasize the scientific process. Students engage in inquiry-based learning models where they form hypotheses and actively plan and carry out hands-on investigations while analyzing and interpreting data. Using developmentally appropriate mathematical and computational thinking, students construct their own explanations and defend their positions and findings based on evidence. In addition to the scientific process, 21st learning skills are emphasized as a dynamic value added set of skills to daily lessons. Critical thinking, communication, collaboration and creativity are all emphasized throughout all subject areas in our curriculum. Our intention is to meet young people where they are while enhancing and developing their skill sets so they become productive and value-added decision makers, citizens, employees and entrepreneurs in the 21st Century world of work and beyond.

9. Do your students have meaningful outdoor experiences (an investigative or experiential project that engages students in critical thinking, problem solving and decision making) at every grade level?

Yes

Brookwood is concerned about our students and the on-going trend of nature deficit disorder. Reconnecting with nature in a suburban landscape can be a challenge at times, but is a priority to the staff and administration. We have two butterfly gardens that students use as sensory gardens and places to explore natural habitats. One example of the utilization of this one outdoor space is a monarch butterfly project. Monarch chrysalis were observed, hypotheses were made, the life cycle of monarch butterflies were studied in cross-curricular ways, and emerging butterflies were observed and data collected. Students then determined when and where the butterflies should be released based on all prior background knowledge and collective constructed understandings. The students determined the butterfly gardens would be an ideal space based on food sources and safe habitats. They took the newly emerged monarchs out and predicted behaviors and end results while they observed the butterflies. To extend the learning, migration patterns and geography were integrated into the project to create a dynamic and meaningful outdoor scientific exploration. This is just one example of a school-based outdoor project, but many others have been utilized. In addition, off-site learning experiences to out-of-doors venues such as Ernie Miller Nature Center, Deanna Rose Children's Farmstead, and multiple pumpkin patches occur annual at different grade levels. These off-site experiences include pre and post lessons, activities and projects that set the context and deepen the nature based learning, while also extending the learning back in the classroom to ensure the students can apply what they experienced and learned.

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1. Do all your students experience a robust general science education builds toward a deep understanding of life, physical, and earth sciences upon graduation?

Yes

The SMSD Health and Science Curriculum reflects the Kansas Department of Education's Standards, Benchmarks, and Indicators – in both content and process. All students in all grade levels participate in daily science instruction and inquiry, often in an integrated manner. Science, technology, engineering and mathematics are emphasized in a developmentally appropriate manner throughout all grade levels and in after school clubs as well (examples include FIRST LEGO League, Math Club, Athletics, and Science Club). The 21st Century Skills of critical thinking, communication, collaboration and creativity are emphasized and integrated in classroom instruction and student learning. The Health and Science curriculum is scaffold so the

content and scientific process builds in complexity from grade kindergarten to grade six. This allows students to construct and build their personal schemas as they progress through the grades and each curriculum experience.

2. Does your curriculum provide a demonstrated connection between classroom content and college and career readiness, particularly to post-secondary options that focus explicitly on environmental and sustainability fields, studies, and/or careers?

Yes

As stated previously, the SMSD Health and Science Curriculum reflects the Kansas Department of Education’s Standards, Benchmarks, and Indicators. As an elementary school, we begin the focus on college and career readiness by utilizing the 21st Century Skills of critical thinking, communication, collaboration and creativity in a cross curricular manner. Environmental and sustainable focus is incorporated in the curriculum and scaffolds in a developmentally appropriate manner in both content and process. For example: kindergartners identify reusing, recycling and conservation as ways of protecting Earth’s natural resources. Third graders analyze ways to conserve energy through recycling and identify various programs that involve recycling. Fourth graders analyze ways that humans can keep the earth’s ecosystems free from pollution. Seventh graders investigate the effects of human activities on the environment and analyze decisions based on the knowledge of benefits and risks. High Schoolers engage in yearlong courses that focus on the environment: Environmental Education 1, Environmental Education 2, and Global Issues in Science. These courses examine the carbon footprint that we leave behind and focus on a variety of “green” and environmentally conscious career options. The different high schools in the district have different real life applications of environmental studies/career; one runs a greenhouse, two other schools have education labs that focus on tall grass prairies and ecological sustainable management of these outdoor labs, and another has installed solar panels and a wind turbine to learn about the technology behind green energy.

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1. Are your students required to conduct an age-appropriate civic/community engagement project around a self-selected environmental or sustainability topic at every grade level?

No

While students are not mandated to conduct service learning projects at every grade level, we do provide many opportunities for students at all age levels to engage in civic/community engagement projects. Frequently these projects are selected by student groups and classrooms and vary from collecting gently worn coats and donating to charity (reusing products), to raising money for healthy meals for families in need, to promoting, collecting and donating gently used books to schools in need of books in their library. A specific example of one of these projects includes our Site Council. Our Site Council is an advisory group represented by all stakeholders (Principal, teacher, classified employee, parents, community member, and students). The purpose of the group is to give recommendations and review the School Improvement Plan. Last year the students on the Site Council determined they were concerned with environmental and sustainability topics. The students identified and engaged in a process of interviewing students in different grade levels asking them to identify their top environmental concerns at the school. The environmental concerns were explored with peers across different grade levels and they collaboratively identified creative solutions to the problems. The solutions and tips were shared with the Site Council and the entire school through morning announcements and family electronic newsletters.

2. Do you partner with local academic, businesses, government, nonprofits, informal science institutions and/or other schools to help advance the school and community toward the 3 Pillars and/or assist the progress of other schools, particularly schools with lesser capacity in these areas?

Yes

At Brookwood we value our community partners and work with them in a variety of capacities. Brookwood has worked with the Johnson County Environmental Department (JCED) – both the Waste Management Division and the Storm Water Management Division, the Brookwood Parent Teacher Association (PTA), The Shawnee

Mission Area Council of PTA (SMAC), The Leawood Home Owner’s Association, The Leawood City Council, Stonelion Puppet Theatre, Hillsdale Watershed Project, Missouri Organic, Ronald McDonald House, Fetching Dreams, Kansas Department of Wildlife and Parks, America Recycles Day, Leawood Parks and Recreation, The Environmental Protection Agency, Stan Slaughter, Eco Elvis, and many more. The interaction we have had with the above groups vary. Examples include: • An on-going, multi-year relationship with JCED’s Waste Reduction Division where they provide waste reduction assistance, coaching, and educational opportunities for our student HiP Team (after school environmental group) • Having the Environmental Committee from Leawood City Council come to speak with our student HiP Team • Engaging in an interactive session with Fetching Dreams where the students made reused dog toys in order to raise money for animal shelters • PTA volunteers working with other parents in the district to help their schools implement successful environmental projects in their school. All of our partnerships have resulted in dynamic experiences for all parties involved, rich learning experiences and opportunities to further promote and showcase the successes Brookwood has had and help inspire and motivate others to make environmental change.

3. Do you have outdoor classrooms on your grounds which include native plantings and do you use them to teach an array of subjects in context, engage the broader community and develop civic skills?

Yes

Brookwood has two butterfly gardens and multiple other gardens. All of the gardens include some native plantings, although they were originally created to attract a variety of butterflies. The gardens are used to reinforce and teach science and environmental education in an outdoor classroom setting as stated previously. In addition, the gardens have been used to engage the Brookwood community. We have multiple volunteers give their time and expertise to assist children in the maintenance of the gardens throughout all seasons. We have both Girl and Boy Scout troops assist with projects from plantings and maintenance to the rebuilding of existing raised beds. Our butterfly gardens were built as a memorial to the loss of a Brookwood family’s young child. They serve as a reminder to students the beauty of life and compassion we must all have for others. Last year multiple students engaged in a large gardening project to expand and enhance an existing garden in memory of a beloved teacher who passed away. They created a natural environment with paths, native plantings, a bird bath and a bench. Civic skills such as communication, critical thinking and compassion were developed as the students engaged in these collaborative project.

4. What percentage of last year's graduates scored proficient or better on a community or civic engagement skills assessment? (indicate N/A if not applicable)

N/A

5. What other indicators or benchmarks (quantified whenever possible) of your progress towards the goal of 100% of your graduates being environmental and sustainability literate do you feel should be considered? (including information from completion of the Kansas Green Schools Learning Community Investigation)

Brookwood is an elementary school for students in kindergarten through sixth grade. While we do not have testing data supportive of environmental and sustainability literacy, we do have state assessment data for Reading, science and mathematics. 98% of our students "Met Standard" or Above on the Kansas State Math Assessment. 97% of our students "Met Standard" or Above on our Kansas Reading Assessment, and 100% of our students "Met Standard" or Above on our Kansas Science Assessment. Reading, science, and mathematics are essential building blocks to success in sustainability and environmental education. The successes of our students regarding these subject areas and the on-going environmental engagement and learning they are experiencing during their seven years at Brookwood ensures they will be prepared for the remainder of their schooling, including achieving environmental and sustainability literacy.

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1. Integrated Pest Management

	Yes	No
Do you have an integrated pest management plan in effect to reduce or eliminate pesticides?		X

Do you provide notification of your pest control policies, methods of application and requirements for posting and pre-notification to parents and school employees?	X
Do you maintain annual summaries of pesticide applications, copies of pesticide labels, copies of notices and MSDSs in an accessible location?	X
Do you prohibit children from entering the pesticide area for at least 8 hours following the application or longer, if feasible, or if required by the pesticide label?	X

2. Ventilation

	Yes	No
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Are local exhaust systems (including dust collection systems, paint booths, and/or fume hoods) installed at all major airborne contaminant sources, including science labs, copy/printing facilities, chemical storage rooms?	X
Have you installed energy recovery ventilation systems where feasible to bring in fresh air while recovering the heating or cooling from the conditioned air?	X
Does your school meet the stricter of: ASHRAE Standard 62.1-2010 (Ventilation for Acceptable Indoor Air Quality) OR your state or local code?	X

Which one? : ASHRAE 62.1-2010

3. Contaminant Controls: Radon--Have all ground-contact classrooms been tested for radon within the past 24 months?

No

N/A

4. Carbon Monoxide (CO): If you have combustion appliances, do you have an inventory of all combustion appliances and do you annually inspect these appliances?

Yes

5. Carbon Monoxide (CO): Are CO alarms installed which meet the requirements of the National Fire Protection Association code 720?

No

6. Mercury:

	Yes	No
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Have all unnecessary mercury containing devices been replaced with non-mercury devices?	X
Do you recycle or dispose of unwanted mercury laboratory chemicals, mercury thermometers, gauges and other devices in accordance with federal, state and local environmental regulations?	X

Explain::

7. Chromated Copper Arsenate (CCA): Have all wooden decks, stairs, playground equipment or other structures treated with Chromated Copper Arsenate been replaced or sealed within the past 12 months?

Not Applicable

8. Secondhand Tobacco Smoke: Is smoking prohibited on campus?

Yes

9. Asthma Control: Do you have an asthma management program in place consistent with the National Asthma Education and Prevention Program's (NAEPP) Asthma Friendly Schools Guidelines?

Yes

10. Indoor Air quality: Have you developed and implemented a comprehensive indoor air quality management program consistent with IAQ Tools for Schools?

Yes

11. Moisture Control:

	Yes	No
Are all structures visually inspected on a regular basis and free of mold, moisture & water leakage?	X	
Is indoor relative humidity maintained below 60% (cold climates during freezing temperatures should target 20-30%)?	X	
Are moisture resistant materials/protective systems installed (e.g., flooring, tub/shower, backing, and piping)?	X	

12. Chemical Management: Do you have a chemical management program in place that includes the following elements:

	Yes	No
Chemical purchasing policy, including low- or no-VOC products	X	
Chemical inventory	X	
Storage and labeling	X	
Training and handling	X	
Hazard communication	X	
Spills, clean-up and disposal	X	
Select EPA's Design for the Environment - approved cleaning products	X	

Explain::

13. Describe any other measures regarding the school's built and natural environment that you take to protect student and staff health and which you feel should be considered (including documentation from completion of the Kansas Green Schools Healthy School Environment Investigation):

None

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1. Fitness and Outdoor Time

What percentage of your students over the past year engaged in at least 150 minutes of school-supervised physical education and/or outdoor time per week? - 100

What is the average amount of time over the past year that each student engages in school-supervised physical education and/or outdoor time per week in minutes? - 265

2. Food

Have you earned USDA's Healthier US School Challenge award for school food? - No. We are in the process of completing the application.

List award level earned: - N/A

What percentage (by cost) of food purchased is certified as environmentally preferable (e.g. Organic, Fair Trade, Food Alliance, Rainforest Alliance, etc.)? - 0%

What percentage (by cost) of food purchased is grown and processed within 200 miles of the school (including food grown on school grounds)? - 43% of our food is processed within 300 miles.

Does the school have an onsite garden in which the students participate? - Yes. We do not have food producing gardens, though.

3. UV Protection: What percentage of your current student body has participated in EPA's Sunwise Program or an equivalent program?

100% has been exposed to the importance of UV protection.

1. Has your school received EPA's ENERGY STAR certification?

No

Current Rating as of January 31, 2012 – 67

2. Non-transportation energy reduction: If you have reduced your total non-transportation energy use (i.e., electricity and temperature control) from an initial baseline, please provide:

Percentage reduction: - Adjusted Energy Use: -32.5%

Measurement unit used (kBtu/Square foot or kBtu/student): - Current Source Energy Intensity: 145 kBtu/sf

Time period measured: from ____ to ____ - July 1, 2008 to December 31, 2011

What documents can you provide to document this reduction (such as ENERGY STAR Portfolio Manager reports) if requested? - Energy Star Portfolio Manager reports

3. What percentage of your energy consumption is derived from:

Percentage of energy consumption from on-site renewable energy generation: - Zero

Percentage of energy consumption from purchased renewable energy: - Zero

4. BUILDINGS (new construction or renovation): If you have constructed and/or renovated buildings in the past three years, (indicate N/A if not applicable)

What percentage of the building area meets Leadership in Energy and Environmental Design (LEED), Collaborative for High Performing Schools (CHPS), Green Globes or other standards? - N/A

What is the total constructed area? - N/A

What is the total renovated area? - N/A

Which certification (if any) did you receive and at what level (e.g. Silver, Gold, Platinum)? - N/A

5. BUILDINGS (existing):

What percentage of your total existing building area has achieved LEED Existing Buildings: Operation & Maintenance, CHPS Operations, Green Globes or other standards? - N/A

What is the total building area? - N/A

Which certification (if any) did you receive and at what level (e.g. Silver, Gold, Platinum)? - N/A

6. Greenhouse Gas Emissions: If you reduce or offset the GHG emissions from building energy use, please provide:

Current Total GHG Emissions (MtCO₂e) - 529 mtCO₂e

Baseline Total GHG Emissions (MtCO₂e) - 735 mtCO₂e

Change from Baseline: GHG Emissions (MtCO₂e) - 28%

Time period of reduction or offset: from ____ to ____ - July 1, 2008 to December 31, 2011

7. Explain any offsets of greenhouse gases used:

No offsets used

8. School Building Energy Management

	Yes	No
Have you fully implemented the Facility Energy Assessment Matrix within EPA's Guidelines for Energy Management?	X	
Has the school building been assessed using the Federal Guiding Principles Checklist in Portfolio Manager?	X	

9. What percentage by cost of all your furniture purchases is certified under the Business and Institutional Furniture Manufacturers Association's "level" ecolabel?

None

10. Is an energy and water efficient product purchasing and procurement policy in place?

No

11. Other indicators of your progress towards elimination of greenhouse gas emissions (describe in detail and include metrics if available including information from completion of the Kansas Green Schools Energy Investigation)

None

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1. If you can demonstrate reduced total water consumption intensity (measured in gal/total square footage of building) from an initial baseline, please provide:

Percentage reduction: - No reduction

Time period of reduction: From _____ to _____ - January 1, 2009 to December 31, 2011

2. What documents will you provide to document this reduction (such as ENERGY STAR Portfolio Manager reports, Kansas Green Schools Water Investigation) if requested?

Energy Star Portfolio Manager reports – Performance: Water Use

3. How often do you conduct audits of facilities and irrigation systems to ensure they are free of significant water leaks and to identify opportunities for savings?

Monthly

4. Describe how your site grading and your irrigation system and schedule is appropriate for your climate, soil conditions, plant materials, and climate, with an emphasis on water conservation:

Brookwood Elementary was built in 1960 on 9.89 acres. It is 47,610 square feet in size. Floor Area Ratio (FAR) is 0.11. There is a limited automatic irrigation system for a small butterfly garden in the back of the school. All other landscaping is appropriate for Kansas climate and soil conditions and does not receive automatic irrigation.

5. Do ALL your outdoor landscapes consist of water-efficient or regionally-appropriate (native species and /or adapted species) plant choices?

No

6. Are alternative water sources (e.g., grey water) used before potable water for irrigation?

No

7. If drinking water is acquired from the school's own well, are your drinking water sources protected?

Yes

Water is provided by our municipal water utility, Water One of Johnson County, KS.

8. Do you have a program to control lead in drinking water (including voluntary testing and implementation of measures to reduce lead exposure in drinking water) in place?

Yes

Water is provided by our municipal water utility, Water One of Johnson County, KS. We rely on them for water quality standards.

9. Have you been cited within the past three years for failure to meet federal, state or local potable water quality standards?

No

10. Are all taps, faucets and fountains used for drinking and cooking cleaned on a regular basis to reduce possible bacterial and other contamination; and are faucet screens and aerators regularly cleaned to remove particulate lead deposits?

Yes

Daily

11. Other ways you are working to improve water quality, efficiency, and conservation (including action plans from Kansas Green Schools Water Investigation):

None at this time.

12. What percentage of your school grounds are devoted to ecologically or socially beneficial uses, including those that give consideration to native wildlife? Describe:

The Floor Area Ratio (FAR) of 0.11 indicates that almost 90% of the site is available for social benefit including playgrounds and open space for neighborhood use. Additionally, there are two small butterfly garden areas which are used in the natural science curriculum as part of our environmental education.

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1. What percentage of waste is diverted from the landfill or incinerator by reuse, composting, and/or recycling: (calculate total amount reused, composted or recycled/total amount reused, composted or recycled used + total sent to a landfill or incinerator)

90%

2. What percentage of total office/classroom paper content BY COST is post-consumer material or fiber from forests certified as responsibly managed by the Forest Stewardship Council, Sustainable Forestry Initiative, American Tree Farm System or other certification standard: (If a paper is only 30% recycled, only 30% of the cost of that paper should be counted towards the recycled portion. To calculate the percentage, multiply the percentage of recycled content by the cost for each paper item, add the totals of these calculations and then divide by the total cost of your paper purchases)

This information is not available due to District purchasing practices.

3. What percentage of total office/classroom paper content by cost is "totally chlorine-free" (TCF) or "processed-chlorine-free" (PCF: (see calculation method in question above)

This information is not available due to District purchasing practices.

4. HAZARDOUS WASTE: Please answer all the questions below if possible regarding elimination of hazardous waste streams.

	Yes	No	Not Applicable
Is a Hazardous Waste Policy for storage, management and disposal of chemicals in laboratories and other areas with hazardous waste in place and actively enforced?	X		
Has your school been cited within three years for improper management of hazardous waste according to Federal and State regulations?		X	

Comments::

5. How much hazardous waste does your school generate in pounds/student/year?

Not available

6. Describe the types of hazardous waste, how hazardous waste is monitored and how the amount above is calculated:

Operations and Maintenance personnel follow approved procedures for use and storage of typical materials on a daily basis. Typical materials include: fuel, oils and lubricants, refrigerants, and paints. In an elementary school, student activities such as Art and Science typically do not generate an appreciable amount of hazardous waste.

7. What percentage of total computer purchases by cost are Electronic Product Environmental Assessment Tool (EPEAT) certified products?

Zero

8. How does your school dispose of unwanted computer and other electronic products?

All surplus computers and servers are sold at an auction attended by large computer surplus companies who refurbish and resell them around the world.

9. What percentage by cost of all cleaning products in use are certified "green," or can otherwise demonstrate that they meet the environmental standards of established eco-label programs?

90%+

10. Which eco-label program standard(s) is your school using?

EPA's Design for the Environment – approved cleaning products

11. Custodial Services

	Yes	No
Is your school custodial program based in the principles of effective management and "green" service?	X	
Has your school custodial program been certified by the ISSA Cleaning Industry Management Standard - Green Building (or an equivalent standard)?		X

Comment:: Formal certification is cost-prohibitive. Operations and Maintenance utilizes the “Custodial Staffing Guidelines for Educational Facilities”, published by the Association of Physical Plant Administrators (APPA).

12. Other indicators that you are reducing waste and eliminating hazardous waste (including action plans from Kansas Green Schools Waste and Recycling Investigation):

Brookwood actively recycles throughout the entire school and composts in the kitchen and cafeteria. We have reduced our waste to the landfill by 90% according to a waste audit performed by Johnson County Environmental Department Waste Reduction Division. The kitchen is at zero-waste status. Last year we recycled 31 tons of paper through Paper Retriever, 23 tons of compost through Missouri Organic, 7 tons of assorted co-mingle items (cardboard, paperboard, plastic bottles, plastics, tin cans and aluminum cans) through Abitibi Bowater and 30 pounds of crayons through the National Crayon Recycling Program. We currently offer battery recycling through Battery Solutions and toner, ink jet cartridge, cell phone and laptop recycling through Funding Factory.

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1. What percentage of students and staff walk, bike, bus, or carpool (2+ students in the car) to/from school? Describe how this information been collected and calculated:

1% of students ride the bus 5% of students ride bikes 25% of students car pool 60% of students walk All staff drive their own cars to work. This information was obtained in an informal manner, bikes were counted in the bike racks, students were counted in cars with 2 or more students and teachers counted students who walk to school.

2. Transportation:

	Yes	No
Are all vehicles loading & unloading areas at least 25 feet away from all buildings air intakes (including doors and windows)?		
Have “Safe Pedestrian Routes” to school or "Safe Routes to School" been designated, distributed to parents and posted in the main office?		

Comments:: We have two crossing guards hired by the City of Leawood. Students are educated to only cross the streets at those two intersections where the crossing guards are located. These routes are publicized in the beginning of the year newsletter and reminders are published throughout the year. We have designated "Walk Your Child to School Week" where we promote families walking to school. We also participate in the "McGruff Safety House" program. Community members display the McGruff House Safety Sign. If a child needs to retreat to safety they know they are welcome in a McGruff Safe House. We also have Idle Free signage lining our pick up and drop off zones. Cars are to be turned off while waiting for their children to be dropped off or picked up.

3. Describe how your school transportation use is efficient and environmentally benign (e.g. the percentage of school-owned electric/hybrid/alternative fuel vehicles in your fleet, or other indicators of significant reductions in emissions):

Brookwood only utilizes one small school bus for children with special needs.

4. Describe any other accomplishments you've made under Pillar One towards eliminating your negative environmental impact or improving your environmental footprint which you feel should be considered, including investigations and action planning from Kansas Green Schools Investigations:

Please read below for a listing of additional successes and initiatives Brookwood is involved in to further improve our environmental footprint:

- Brookwood's PTA raised money to install energy efficient hand dryers in 50% of the restrooms in the school. The intention is to fund the remainder next year.
- The PTA actively promotes zero waste classroom parties by encouraging reusable plates and napkins with recyclable drink options.
- Vermicomposters are being added to classrooms to incorporate environmental education in classrooms and show kids how decomposition works in real time.
- Our student HiP Team (environmental club) grew from 15 kids the first year to 50 kids this year.
- Interest and buy-in from parents has increased in the past two years. Our adult HiP Team consisted of 3 consistent volunteers the first year. We now have over 20 parent volunteers that help out in a variety of capacities.
- Brookwood parent volunteers are involved with a group of parents from other Shawnee Mission School District schools who are interested in environmental education and sustainability. This group is identified as the SMSD HiP Team. The team has formed a grassroots movement to educate, inspire and motivate the SMSD district and board to embrace and support green initiatives. The goal is for the district to institutionalize and fund many of the programs which are currently run on grants. With Brookwood's and other schools' administrative support the group has hosted meetings and shared knowledge and expertise with like-minded schools, while working with the community to advance the District in adopting and funding programs like school-wide recycling and co

III.C – Nominating Authority’s Certification Signature

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.

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 achieves or is one of those overseen by the Nominating Authority which comes the closest to achieving the goals of all three green Ribbon Pillars: 1) environmental impact and energy efficiency; 2) healthy school environments; and 3) environmental and sustainability education.
3. The Nominating Authority has evaluated the school and selected it for submission to the U.S. Department of Education from among those schools overseen by the Nominating Authority which have applied for a Green Ribbon, based on documented achievement toward the three Green School Pillars and Elements.
4. The school meets all applicable federal civil rights and federal, state, tribal and local health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency Kansas State Department of Education

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

I have reviewed the information in this application, including the award and eligibility requirements on pages 2-4, and certify, to the best of my knowledge through a documentary verification assessment, that the school meets the provisions in this Part of the Nominee Presentation Form.

 Date 3/20/2012

(Nominating Authority’s Signature)

Note to Nominating Authority: The application, including the signed certifications and documentation of evaluation in the three pillars should be converted to a PDF file and emailed to Director, ED-Green Ribbon Schools at green.ribbon.schools@ed.gov according to the instructions in the Nominee Submission Procedure.