



2015-2016 School Nominee Presentation Form

ELIGIBILITY CERTIFICATIONS

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

Public Charter Title I Magnet Private Independent Rural

Name of Principal: Ms. Angelique Joyner

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

Official School Name: Van Voorhis Elementary School

(As it should appear on an award)

Official School Name Mailing Address: Building 5550, 120 Folger St. Fort Knox, KY 40121

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

County: Hardin County State School Code Number *: N/A

Telephone: 502-624-5854 Fax: 502-624-7267

Website/URL: <http://www.am.dodea.edu/knox/vanvoorhis> E-mail: Angelique.joyner@am.dodea.edu

**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.

UE A. 1407337359
(Principal's Signature)

Date: December 1, 2015

Name of Superintendent/Area Director: Dr. Frank Calvano, Dr. Emily Marsh

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



District Name: Kentucky District – Americas

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

CALVANO.FRANK
K.A.1038857700

Digitally signed by CALVANO.FRANK.A.1038857700
 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI,
 ou=DODEA, cn=CALVANO.FRANK.A.1038857700
 Date: 2015.12.01 14:50:38 -0500

MARSH.EMILY
K.1053649242

Digitally signed by MARSH.EMILY.K.1053649242
 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=DODEA,
 cn=MARSH.EMILY.K.1053649242
 Date: 2016.01.14 15:42:33 -0500

Date: December 1, 2015/January 14, 2016

(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: Headquarters, Department of Defense Education Activity

Name of Nominating Authority: Dr. Linda L. Curtis, Principal Deputy Director and Associate Director of Academics
 (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.

Date: January 29, 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 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 and reference the OMB Control Number 1860-0509. Note: Please do not return the completed ED-Green Ribbon Schools application to this address.



Van Voorhis Elementary School

Headquarters Department of Defense Education Activity (HQ DoDEA) Nominee to
U.S. Department of Education Green Ribbon Schools Program

Prepared by
HQ DoDEA Facilities Branch
January 2016

ADDENDUM TO 2015-2016 SCHOOL NOMINEE PRESENTATION FORM

As a unique Federal entity, the Department of Defense Education Activity and its schools (the Department of Defense Dependents Schools (DoDDS) that are located overseas, and the Domestic Dependent Elementary and Secondary Schools (DDESS) located in the U.S.) are not under the auspices of the U.S. Department of Education. However, DoDEA processes and procedures comply with all federal laws, including those concerning the investigation of civil rights complaints and complaint reviews, and the administration of the Special Education Program.



1. School Contact Information:

School Name: Van Voorhis Elementary School
 Installation: Fort Knox Military Installation
 Street Address: Building 5550, 120 Folger St., Fort Knox, KY 40121
 City: Fort Knox State: KY Zip: 40121
 School Website: <http://www.am.dodea.edu/knox/vanvoorhis>
 Principal Name: Angelique Joyner
 Principal Email Address: Angelique.joyner@am.dodea.edu
 Principal Phone Number: 502-624-5854
 Total school enrollment: 655
 DoDEA District: Kentucky District DoDEA Area: Americas
 School type: Elementary
 Percent Disadvantaged Background Population (Free/Reduced Price School Lunch): 40%

2. Application Team Information.

Lead Applicant Name (who prepared the application): Cynthia Noble
 Lead Applicant Title (e.g., teacher, principal): Gifted Facilitator
 Lead Applicant Email: Cindy.Noble@am.dodea.edu
 Lead Applicant Phone Number: 502-624-5854

Application Team Members: (Others who helped prepare this application)

Name (First and Last), Title/Department		
1	Dr. Christine Sherretz	Assistant Principal
2	Jessica McKelvey	STEM Coordinator/Facilitator

Part II: Summary of Achievements.

Summary Narrative:

Van Voorhis Elementary School has a long proven history of providing an outstanding education for the children of military families. Today, it boasts a rich blend of students from both military and civilian families that reside in on- post housing. Van Voorhis is housed in a building built in 1958. Although well-maintained, the building was not built with energy savings or green initiative programs in mind. The old facility has admirably served elementary students for 57 years. During those years, greater emphasis has been given by the post, DoDEA, district, and school to be good stewards of the environment and to reduce our carbon footprint by conserving both manmade and natural resources. Van Voorhis has undergone many renovations to conserve energy and provide a healthy school environment for both students and participating stakeholders. Curriculum and instruction has purposefully been designed to address the health and educational needs of Van Voorhis students to prepare them to become environmentally aware and responsible citizens.

Van Voorhis School will be closed after the 2015-16 school year. All of the students in grades Pre-K through fifth grade will attend what is expected to be a Leadership in Energy and Environmental Design (LEED) Silver certified school that has been professionally designed to meet green energy and environmentally-conscious conservation goals. The new Kingsolver Elementary School plumbing and sewage systems will minimize the use of water consumption through use of a solar energy return system and efficient appliances. The new Kingsolver Elementary School building is being built with geothermal insulation and is being touted by engineering experts as being equipped to generate almost as much energy as it needs for operation. All aspects of the new school have been designed to be environmentally friendly, leaving little negative environmental impact.

Van Voorhis Elementary is committed to be a Green School in the caliber of existing Green Ribbon Schools around the country. Our educators, support personnel, military and civilian partners are all focused on demonstrating responsible conservation and earth-friendly skills and concerns in our effort to produce and facilitate caring students that will become our 21st Century leaders and caretakers of the environment. Just because our school's name will change and our building will be different, the heart and gusto of our Green School will remain the same and will steer our goals, instruction, and actions.

Community partners include the:

- Fort Knox Recycling Center
- U.S. Army Corps of Engineers (USACE)
- Fort Knox Meteorological Department
- National Energy Education Development Project in conjunction with STEM outreach from the University of Louisville
- Fort Knox Forestry Department
- Fort Knox Division of Wildlife Services
- Fort Knox Veterinary Clinic
- KY State Forestry Division
- NOLIN Rural Electric Cooperative

- Kentucky Engineering Exposure Network
- Hardin County Extension Office

All of the above noted partners have served and are continuing to serve as contributing environmental educators for our students. Our community partners served as presenters and worked to actively involve our students in environmentally relevant learning. Many of our community partners helped all our students create some form of an oil-filtration system during our STEMposium Week by providing the scientific foundation needed for them to design, build, and test working filters.

Last year, an initiative was begun to promote healthy eating and horticultural opportunities for engaged learning through the construction of a school greenhouse. Through the support of a caring district maintenance department and DoDEA's Science Technology Engineering Math (STEM) promotions, our students are benefitting from opportunities to truly get their hands dirty as they learn about life science. They are seeing first hand why protecting the environment and conserving resources matters to their health and quality of life.

Our health partners from the Ireland Army Hospital and Dental Center and the Military Family Life Consultant (MFLAC) work with our dedicated physical education teacher and school counselors to promote student health and well-being. Our military partner, United States Army Human Resources Command (USAHRC) has provided service as mentors to the physical education special events that promote being physically fit and active.

STEM provides an underlying constant framework to support investigation and implementation of the problem solving techniques and academic skills needed for our students to understand and conceptualize what it means to become contributing environmental caretakers. Our students benefit from receiving focused STEM instruction from a STEM teacher in our district and from classroom teachers along with our specialists that have incorporated STEM, 21st Century learning, and College and Career Ready Math standards and initiatives to drive student instruction and learning. Our STEM teacher conducts monthly STEMposium challenges that promote student and family problem-solving to design or develop an environmentally-friendly solution. She directs weekly robotic club activities and facilitates lessons on coding. She supports our teachers on ways they can promote and implement STEM instruction into the regular classroom.

All our teachers and support staff have received many hours of hands-on instruction regarding the implementation of College and Career Ready Math standards and appropriate, rigorous student instruction through training from DoDEA instructional specialists working in conjunction with facilitators from the Charles A. Dana Center, from the University of Texas at Austin.

All of our previous community and military partners have graciously consented to be part of our Green School initiative. We are pleased to have added other providers and programs to enhance our students' educational program. Recently, we have secured a master gardener from the Lincoln Trail Master Gardener Association to help expand our greenhouse program. We will be increasing our composting efforts and expanding our worm farming program. A representative from the Fort Knox Energy Office in conjunction with NOLIN RECC (the local energy cooperative) will be consulting with our fifth graders as they conduct a school energy audit. Students from our gifted program are working with the Fort Knox Water Division and

Conservation Officer to monitor and promote reduction of water waste at the student level. Our second grade students are involved in showcasing ways to reduce and recycle paper. All of our students will be involved in this year’s creation of imaginary environmental “superheroes” that strive to protect and benefit the world in which they live. Our students “superheroes” will further be used to promote Green living to our local community. Our community will celebrate our students’ learning by participating in an open-house event that showcases our students’ talents through an earth themed musical production.

New this year have been opportunities for teachers and support staff to participate in periodic health and wellness activities with colleagues. A new walking club has been established to encourage student exercise in a stress reducing setting.

Van Voorhis Elementary School is dedicated to helping prepare and equip all our stakeholders with the skills and understanding necessary to be exemplary caretakers of our environment. Our previous efforts have been met with great success. Last year, we had over 200 parents or community representatives participating in some aspect of our STEM or environmental education offerings. We hope to be a true example of 21st Century education done right. A name change of our school next year will not impact our commitment to becoming a Green Ribbon School.

Green School Program and Awards.

1. Does your school participate in a local, state, or national green schools program?

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

Table Showing Participating Status in Local, State, or National Green Schools Programs:

Program, Level in Progress, Level Achieved (include date achieved)			
1	National Energy Education Development Project	Apprentice	Began Fall 2014

2. In the past five years, has your school, staff, students or student groups received any awards for environmental stewardship, student and staff health and wellness, or environmental education/civic programs?

Yes () No If yes, provide award details below:

Table Showing Awards Received for Environmental Stewardship, Wellness or Environmental Education

Award, Awarded To, Awarded By, Year				
1	National Energy Education Development Project Scholarships for training	3 teachers and 1 instructional support specialist from Ft Knox Community Schools	KY NEED	2014

Pillar 1: Reduce environmental impact and costs.

Element 1A: Energy conservation strategies.

1. Which of the following programs or practices has your school implemented to conserve energy and to protect our environment from the negative effects of buildings and transportation? (Check all that apply)

- Our school has an energy management plan in place that describes the steps we are taking, the key participants, our goals, and a schedule for conserving energy and reducing energy costs.
- Our school participated in an energy efficiency program that resulted in a comprehensive energy audit and cost effective energy efficiency improvements.
- Our school has set and met an energy conservation target every year since we started our program.
- Our school energy use is tracked and benchmarked using EPA ENERGY STAR Portfolio Manager or an equivalent installation program.
- Our school is EPA Energy Star certified this year.
- 5% or more of the energy used at our school is obtained from on-site or off-site renewable energy sources.
- Our new school was built to meet Leadership in Energy and Environmental Design (LEED) green building standards.
- Our school has a greenhouse gas emission reduction plan in place that targets energy use. We measure our annual progress against our reduction goal.

2. Use the list above as a guide to describe how your school programs, policies, and actions have reduced the amount of energy used in your building(s). Include data. Also include information about your efforts to protect our environment from greenhouse gas emissions, how you set your

goals for reduction, and how you measure your progress. Work as needed with your installation energy program management team to get information about your energy use (Maximum 250 words).

Monthly, our school district's logistic office creates an energy report card that analyzes and documents the energy data obtained for the month. It reports usage based on the building's square footage and breaks down the data in base usage and current usage to include positive or negative savings. Unfortunately, Van Voorhis usually is in the negative usage category due to inherent deficits from an older, non-energy efficient building built in the 1950's. Comparing our historic energy usage to current usage does indicate that we are reducing our energy costs. Our current building has undergone changes throughout the years to address energy use reduction. Thermal break windows and panes were installed in 1986. A new HVC system was installed in 1985. The school has had all its fluorescent lighting updated with new fixtures that reduce energy use and hazardous waste.

Our new school, Kingsolver, which will replace Van Voorhis for school year 2016-17, has been designed as an Energy Star certified school. 5% or more of our school energy use will be obtained from on-site (solar) energy sources. Our new school is being built to meet Leadership in Energy and Environmental Design (LEED) Silver standards. It will be an ALMOST net-zero use school. Currently, a portion of our energy is from renewable sources as utilized by NOLIN Rural Electric Cooperative to provide contracted energy for the Fort Knox Military Installation.

Element 1B: Water quality, efficiency, and conservation.

1. Which of the following practices contribute to the protection and conservation of the school domestic (drinking) water? (Check all that apply)

[X] We are served by an installation/privatized utility water provider that is required to report annually on the quality of our water.

[] Our school has its own well and we do water sampling in accordance with our local and state health authorities.

[X] Our building maintenance department cleans all water taps and drinking fountains on a regular basis to prevent bacterial contamination.

[] We have a water reduction plan in place that includes:

[] low-flow water fixtures

[] Native drought-tolerant plants

[] minimal or no landscape irrigation

[] Our school water use is tracked and benchmarked using EPA ENERGY STAR Portfolio Manager or an equivalent installation program.

[] We use only non-potable water (such as water collected from a rain barrel or rain cistern) for irrigation.

[] Our school has a greenhouse gas emission reduction plan in place that targets water use. We measure our annual progress against our reduction goal.

2. Use the list above as a guide to describe how your school implemented and is maintaining your water conservation program including your baseline, your goal, and your reduction rate to date. Explain how you will continue to reduce water use to meet your goal. Include who in the school participates in the water conservation program. Describe the work done to protect water taps and drinking fountains from bacterial contamination. Work as needed with your installation energy program management team to get information about your energy use (Maximum 250 words).

Although improvements to our existing plumbing system have reduced water consumption at Van Voorhis, we still deal with a basic plumbing and fixture system inherent in a building that is 57 years old. The post's water is privatized through a contract with the Hardin County, KY Water District. The Hardin County Water District adheres to high standards for water purity and frequently (more than yearly) reports the quality of the water provided on post. Our local district's maintenance office repairs plumbing problems in a timely manner to include available upgrades to the building's dated water use systems.

Our new Kingsolver school facility is being constructed with a sewage system that will include specified flush valves and a waste pulper system that will maximize efficient use of water resources.

Element 1C: Waste Management and Product Procurement.

1. Which of the following programs has the school initiated and maintained to reduce solid waste, eliminate hazardous waste, and procure environmentally preferable products? (Check all that apply).

Our school has initiated and maintained a solid waste management plan that includes waste reduction practices, collection of recyclable and compostable materials, elimination of hazardous waste, and preferred-purchasing requirements.

Our recycling program collects every material that is collected on our installation.

Our school composts organic materials on site.

Our school only purchases office/classroom paper that is 50% or more post-consumer material.

Our school only purchases office/classroom paper made of fibers from forests certified as responsibly managed in accordance with Forest Stewardship Council, Sustainable Forestry Initiative, or a comparable certification standard.

Our school purchases office/classroom paper that is totally chlorine-free (TCF) or processed chlorine free (PCF).

All new furniture purchases are certified by the Business and Institutional Furniture Manufacturers Association or a comparable standard.

Hazardous and dangerous products at our school have been reduced or eliminated.

Hazardous, dangerous, and universal wastes at our school are handled and disposed of in accordance with federal and state regulations.

Our school has a greenhouse gas emission reduction plan in place that targets solid waste reduction and recycling. We measure our annual progress against our reduction goal.

2. Use the list above as a guide to describe your solid waste management plan, including goals, materials you collect to be recycled or composted, your current recycling rate, and how you calculated the recycling rate. Include who participates in the waste management program, any student learning objectives, and the educational and environmental benefits to date. Provide an overview of your environmentally preferred purchasing. Work as needed with your installation hazardous waste program manager or recycling program manager to gather information about your efforts in this area (Maximum 250 words).

Our school adheres to all Federal and Department of the Army regulations regarding reduction and disposal of all waste produced at Van Voorhis Elementary School. Fort Knox Military Post has an on-site recycling center that recycles plastic, wood, metal, and paper products. The recycling center also has designated recycling of hazardous waste. Our school, to include custodial, food service, administrative, and education staff adheres to the post's cradle-to-grave Hazardous Material (HAZMAT) guidelines, which bar code all chemical and hazardous waste material and maintains a tracking system that follows the material until it is either appropriately disposed or recycled.

All paper, teaching materials, and furniture are purchased in compliance with all Federal and military restrictions and guidelines. Our school does recycle with a special emphasis currently on paper reduction by our staff and students.

Kingsolver School, our new building, is being fitted and supplied with Environmental Protection Agency (EPA) required recycled content products, and biologically-based materials. The new school is utilizing regionally harvested materials via a sustainable design.

Element 1D: Alternative transportation.

Our school provides the following alternative transportation options to driving in single occupancy vehicles to and from school. (Check all that apply)

Our school participates in a "Safe Routes to School" or similar program.

Our school has designated carpool parking stalls.

Our school offers yellow school bus service.

Our school is served by public transportation service.

All school buses that serve our students were built after 1994 when the first emission standards were adopted.

Our school has a well-publicized no idling policy that applies to all vehicles including school buses.

Our school has a vehicle loading/unloading area(s) at least 25 feet from building air intakes, doors, and windows.

Our school has a greenhouse gas emission reduction plan in place that targets transportation. We measure our annual progress against our reduction goal.

2. Use the list above as a guide to describe alternative transportation options to driving in a single occupancy vehicle to and from school. Include how the alternatives are promoted, any data you have about participation in school bus service, public transportation, carpools, ride-sharing, and commuting to school by walking or biking. (Maximum 250 words)

Our school's transportation carrier, Taylor Motors, is contracted by our school system. Taylor Motors has a bus fleet that was built after 1994 and follows KY State guidelines, which is considered the highest standards in the nation for school transportation. Their school bus maintenance program follows stringent guidelines suggested by the Kentucky Department of Education and the U.S. Department of Transportation.

Many of our school's teachers utilize the "Ticket to Ride" shared transportation system supported by Federal guidelines to promote carpooling. Our school does have vehicle loading/unloading areas that are at least 25 feet from our building's air intakes, doors, and windows.

Our district's logistics manager is encouraging our school leadership to pursue parent participation in reducing idling time during the pickup and drop-off waits. We hope to reduce exhaust emissions by helping the families we service make a concerted effort to protect our environment and the health of our students.

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

Element 2A: An integrated school environmental health program.

1. Which of the following programs or practices does your school implement to ensure the environmental health of the school community? (Check all that apply)

Our school implements an up-to-date Integrated Pest Management program.

Our school implements an up-to-date Indoor Air Quality Management Plan modeled after the EPA's Indoor Air Quality (IAQ) Tools for Schools or other national recognized model.

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

Our school does not have any wood playground equipment or other structures that contain chromate copper arsenate or we have identified these structures and have taken steps to reduce exposure.

Our school has a comprehensive green cleaning program.

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 an Asthma Management Program consistent with the National Asthma Education and Prevention Program.

Our school has a chemical management program in place, with elements of purchasing, inventory, storage, training, spills, and hazards communication.

2. Use the list above as a guide to describe how your school implements and measures the success of your integrated environmental health programs and practices to ensure the health and safety of the school community. Include information on how your school addresses exposure to health hazards including radon, chromate copper arsenate, carbon monoxide, chemicals, asthma triggers, and mold. (Maximum 250 words)

Our school is compliant with all federal, state, and Ft. Knox Military Post guidelines concerning exposure to health hazards. Our school has been tested for environmental hazards to include asbestos, radon, molds, heavy metals, and other health hazards. A public report is available concerning exposure and removal or containment of health hazards at our school facility. Our current lighting fixtures have been upgraded to increase energy efficiency as well as reduce the use of hazardous materials.

Our school's pest management program is contracted in compliance with federal, state, and post guidelines to provide safe, kid-friendly and environmentally friendly pest control. Cleaning products are all managed and tracked according to the post's HAZMAT control guidelines. All student use products, to include art supplies and classroom consumable supplies, conform to ASTM D-4236.

Our school has playground facilities that are sustainable and purchased in compliance with safety guidelines. The playground pads are made of recycled rubber and the playground equipment does not contribute to any student exposure of hazardous materials. Our new facilities, Kingsolver School, will also have student health and environmentally friendly playgrounds. Kingsolver is being built in accordance with EPA required recycled content products, and bio based materials that ensure student health and well-being.

2B. High standards of nutrition, fitness, and quality outdoor time for both students and staff.

1. Which of the following programs or practices does your school implement to promote nutrition, physical activity, and overall school community health? (Check all that apply).

Our school participates in the "Coordinated School Health" program (www.cdc.gov/HealthyYouth/cshp/).

Our school participates in the USDA's Healthier School Challenge.

Our school participates in a Farm to School or comparable program to use local, fresh food in our cafeteria.

Our school has a food garden either on-site or in close proximity to our building, which is utilized by the cafeteria or by teachers.

Over the past year, our students spent an average of at least 120 minutes per week (for middle and high schools) or 90 minutes per week (for elementary schools) in school supervised physical education.

At least 50% of our students' annual physical education and physical activity (including recess) takes place outdoors.

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



- [X] Our school integrates health measures into student assessments.
- [X] Health, counseling and psychological services are offered for both students and staff
- [X] Families/communities are involved in an integrated school environmental health program

2. Use the list above as a guide to describe how your school implements high standards of nutrition, fitness, and quality outdoor time for both students and staff. (Maximum 250 words)

All of our students from grades Kindergarten through fifth grade participate in an established physical education period for at least 45 minutes, either weekly or in a 6-day cycle. The physical education class is taught by a trained professional educator. Besides the time dedicated for physical education class, each student from K-5th grade is allotted a daily recess time of 20 minutes for a total of 100 minutes weekly, of which 50% is allocated to promote physical activity. Our 4th and 5th grade students participate in the FitnessGram Program which assesses the five components of health-related fitness: aerobic capacity, muscular strength, muscular endurance, flexibility, and body composition. The FitnessGram reports serve as a communications link between teachers, parents, and students.

Once a month, the staff participates in wellness Thursday. The following activities are available: zumba, walking, and volleyball. *Minds in Motion* has been intentionally integrated in the faculty meetings to demonstrate and model how it should be used in classrooms as a way to incorporate movement.

Our school staff and students are benefitted by having access to a school nurse during the whole school day. Our school nurse maintains health records on each student to include vision and hearing checks. Our school nurse maintains a constant "health alert" list to ensure safety for all of our students.

Our students, parents, and staff are served by a Military Family Life Consultant that promotes emotional well-being. Our school provides one full-time counselor and one part-time counselor to address student and staff counseling needs. Many of our staff have received CPR training. Our students are benefitting from participation in Jr. Red Cross and drug-abuse preventative training.

Van Voorhis school cafeteria follows all U.S. Dept. of Agriculture, Kentucky Department of Education, and National School Lunch Program mandates and guidelines. Our school has been petitioned to participate in the Army Family Performance Triad 26 Week Health Challenge that promotes healthy families.

Pillar 3: Provide effective environmental and sustainability which incorporates STEM, civic skills, and green career pathways.

Element 3A: Interdisciplinary learning about the key relationships between dynamic environmental, energy, and human systems.

1. Describe how your school integrates and assesses/measures students' environmental or sustainability literacy at each grade level including curriculum, courses, outdoor learning, and assessments. (Maximum 250 words)

Providing environmental education supports and defines many disciplines, and is especially good at effectively incorporating science, communication, and math skills into learning that is relevant to our students on a fundamental level. Van Voorhis School has a myriad of ways it integrates our students' environmental literacy utilizing a standards based curriculum, problem-solving skills and methods, mathematical applications, and product-based evidence of learning.

All of our students:

- Have monthly opportunities to participate in a specified STEM challenge that requires each student to create a product that demonstrates how they addressed the question or challenge presented;
- Are challenged weekly through science and math classroom instruction that supports hands-on investigative learning such as learning how to reduce waste by composting in conjunction with providing richer soil for our school's greenhouse;
- Participate in a yearly school-wide STEMposium that promotes student and parent interaction with community leaders/partners as different science topics, engineering explorations, and mathematical problems are explored and showcased;
- Are accorded opportunities to interact with environmental mentors and experts through involvement with national and local specialists through programs such as the National Energy Education Development Project (NEED), the Kentucky Engineering Exposure Network (KEEN), and the Fort Knox Forestry Department's Earth Day Celebration;
- Attend guest presentations concerning energy and natural resource conservation through the post's contracted electricity provider (NOLIN Rural Electric Cooperative), Hardin County Extension Office, and the Fort Knox Recycling Center.

Van Voorhis adheres to DoDEA's standards-based curriculum that supports student development of a strong knowledge base of science and how human systems interact with the natural environment. The new College and Career Readiness Math Standards have been implemented this year at Van Voorhis. The focus on depth of understanding of mathematics encourages our students to develop and hone problem-solving skills that will translate to skill in also solving engineering and environmental challenges.

Van Voorhis educators realize that to truly assess student learning, student engagement is paramount, whether it is to display a showcase of student work in the media center, or serve as student mentors to another class. We want to see what our students have learned put into action. We want to witness the interaction of our students with their peers and community as they build, create, design, plan, and present what they know in and out of the classroom, as exhibited recently by our second graders as they illustrated what they had learned about soil on an interactive bulletin board. Students that attend our Gifted Education classroom are compiling a report concerning water waste through student failure to fully turn off the water after washing their hands at the lavatories. These students are measuring the amount of water wasted in a designated time period and then using their mathematical skills to calculate how much water that would equal over a week. They are further calculating the cost of so much wasted water. The report detailing their findings will be shared with all of the students to encourage water conservation, which helps promote realistic understanding of an environmental problem on a peer level but also encourages civic leadership from students involved in the initial research.

2. Describe professional development opportunities available to your teachers in environmental and sustainability concepts and the number and percentage of teachers who participated in these opportunities during the past 12 months. (Maximum 250 words)

Over the last few years, all of Van Voorhis's educators have had some training concerning STEM either through professional development or workshop attendance. During the last 12 months, our teachers have had opportunities to attend in-house training with our district STEM facilitator who has also conducted cooperative teaching opportunities for any of our teachers to work with *Mindstorm* Robots, E.i.E. Kits (Engineering is Elementary), STEMposium topics, as well as any other science or engineering topic of interest. Our school's vice-Principal is available to work with any grade level during their team meetings concerning an abundance of available literature and materials available to support instruction. Van Voorhis has received an impressive collection of books that support science instruction. The vice-Principal has also prepared a chart that aligns the school's E.i.E. kits with our current science standards.

Our teachers have received detailed, illustrative guides as to how to prepare and conduct investigations for the school's STEMposiums. Cooperative teaching help was made available to support the STEMposium through the use of staff resident experts and student-to-student mentors. Most of Van Voorhis' teachers participated with their students in several aspects of our environmental education activities to include tree-planting or gardening, creation of a water-filter/purifier, career presentations, engineering model presentations, NOLIN Rural Electric Cooperative energy demonstrations, "Hooked on Science" guest presentation, and a student-community physical health and well-being event.

All of our teachers and a majority of instructional support staff have received mandated training concerning implementation of the new College and Career Ready Math Standards implemented this year at Van Voorhis by DoDEA. The new standards support the development of problem-solving, investigative skills by our students. Recently, several of our teachers voluntarily attended a workshop titled "STEM Curriculum and Engineering Methods," sponsored by DoDEA. The workshop reiterated and further defined how to use the E.i.E kits to full benefit in the classroom.

It would be very difficult for someone to find an educator in Van Voorhis Elementary School that was not at least rudimentarily knowledgeable about environmental education. All of our teachers have access to a support group of community experts that are willing to help answer questions, offer support materials, and often come and help facilitate in the classroom. Depending on the training or professional development, at least 80% of our teacher have participated.

During the 2014-15 school year, 3 of our staff received scholarships to attend the local National Energy Education Network (NEED) training.

Element 3B: Use of the environment and sustainability to develop STEM content knowledge and thinking skills to prepare graduates for the 21st century technology-driven economy.

1. Describe how environmental and sustainability education at your school supports teaching science and engineering practices (e.g., 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 from evidence) and supports robust general science education that includes a deep understanding of life, physical, and earth sciences. (Maximum 250 words)

Van Voorhis Elementary School is proactive in preparing well-informed, environmentally cognizant students who are active problem solvers. Obviously, our monthly STEM challenges require the student to analyze and decipher what is truly being asked in the problem to be solved. They are taught and encouraged to use the engineering design process to plan, design, create, and test a product for a solution to the problem. Guidelines for the STEM challenge are to be able to exhibit and explain the product to include detailing changes that had to be made to make the product viable. Students meet to ask questions of each other and question and evaluate how the product might be improved. The yearly STEM school-wide challenge takes the students' developing skills and creates an atmosphere of excitement in conjunction with common scientific language and processes that promote community involvement while showcasing our students' unique imaginations and problem-solving skills. Student exploration of water filtration systems for our last school-wide STEMposium served to initiate student desire to question what contributes to water pollution and waste which resulted in a visit from the KEEN (Kentucky Engineering Exposure Network) engineers who brought in a model watershed table to demonstrate the problems of ground pollutants.

Hands-on investigations in the greenhouse, as well as other outside learning adventures that demonstrate how local wildlife overlaps with neighborhoods promote our students' understanding of earth sciences and the fragility of natural resources when not protected and conserved. Our students thrilled at the study of a mother fox, who decided to have her kits under a shed on our school grounds. While maintaining a safe distance, the students got to witness her bringing food to her offspring which instigated a wealth of questions concerning predator/prey relationships that automatically led to research about food webs. The students' quest to know immediately led to contact with the Fort Knox Wildlife Office, who advised the students on how to be good stewards of native wildlife resources.

All science instruction in correlation with mathematics instruction at Van Voorhis Elementary School is initiated with making it relevant and personal to the student. We want the student to become purposeful, efficient heirs to protect and sustain the environment they inherit. Exposure to current caring professionals modeling what they do on a daily basis to protect and conserve our environmental resources has already inspired many of our students to want to follow in their footsteps. They have expressed a desire for continued learning in like fields. They want to eventually become the engineer who designs a totally non-polluting, biodegradable car or computer.

A bonus of emphasis in mathematical problem-solving has been the students' application to other aspects of problem-solving. Our students are taught to look for alternative ways to solve a problem and that they need to be able to verbalize their insights. Transferring this skill with a few guiding questions to topics in science have provided a mental bridge of understanding for our students between the disciplines.

2. Describe how your curriculum connects classroom content to career and college readiness, particularly post-secondary options that focus on environmental and sustainability field studies and/or careers. (Maximum 250 words)

Previously, we mentioned how our new College and Career Ready Standards are impacting our students' problem-solving skills. Student exposure to community professionals has definitely had an impact on student desire to investigate sustainability fields and careers.

The most exciting aspect of how curriculum is being connected is the increased student excitement when it comes to learning about our environment. Our students view science and math learning at Van Voorhis as fun. So much fun, that they have an increased thirst to learn more. And when students are engaged and happy, parents want to know more. A perpetual loop ensues between student involvement and community involvement. Sixty students took part last spring in a classroom-level challenge to write an environmental skit that demonstrated a problem in our environment and formulated a solution to the problem. The students had to create costumes that were based on recycled materials. They had to research their selected topics through media and expert resources. Finally, the students had to present their skits during a school-wide assembly. 94 parents and community partners attended. To culminate the activity, the students had to evaluate the solutions presented in the skit.

Our second graders hosted a public event where they had to become a famous person from history that included famous mathematicians, scientists or engineers. They had to verbally share why that person made an important contribution to our world. Parent and community turnout was impressive, plus it also serves to encourage our students to pursue like careers.

Element 3C: Development of civic engagement knowledge and skills, and students' application of these to address sustainability and environmental issues in their community.

Describe your students' civic and/or community engagement experiences integrating environmental and sustainability topics/concepts, field studies, community service, etc. Address if and how students conduct an age-appropriate community engagement projects around a self-selected environmental or sustainability topic at every grade level; and partnering with local academic, business, informal science institutions and/or other schools to help advance the school toward the 3 Pillars and/or assist the progress of (an) other school(s), particularly a school with lesser capacity in these areas. (Maximum 250 words)



Many projects have or are currently taking place to engage our students in civic and community environmental and sustainability studies. Our gifted students are currently working with a liaison from the Post's Logistics Office to explore the amount of water being wasted in the bathrooms by student neglect in turning the water off after washing their hands. A report written by the students to include recommendations for increasing student concern will be submitted to the Principal, logistics office, and shared with the students.

Our fourth and fifth grade students will be conducting an energy audit in conjunction with advisement from the post's contracted energy provider, NOLIN Rural Electric Coop. to search classrooms for sources of "vampire" energy waste. The audit will be shared with teachers, students, and parents. Family encouragement will be given to reduce energy waste at home.

Our younger classes are currently investigating earth science with special emphasis on plant growth and recycling. They will be participating in a recycled paper project that will provide starter cups for new seedlings to be used in conjunction with our school greenhouse.

Many of our students are using Legos to construct working robots. Third grade students are being challenged to complete a robotic trash project.

All of the grade levels will have access to use of the school greenhouse to support classroom environmental learning. To support this instruction, some of the students are creating a worm farm to recycle organic waste. The nutritional value of what is being eaten will be assessed by third grade and higher in conjunction with the Army Family Performance Triad 26 Week Health Challenge.

All grade levels will again participate in our STEM week adventure that showcases each grade-level environmental challenge projects linked with green technology or another aspect of earth science. A culminating musical production, written, directed, and presented by over 40 students to address pollution and waste will culminate the weeks' activities.

The Fort Knox Wildlife Department and the Fort Knox Forestry Department will be engaged with the students to provide active learning opportunities on the local school grounds.

All of the grade levels will participate in a STEMposium event to create environmental superheroes that will be shared with the community through the post's newspaper and television outlet.

Finally, as mentioned previously, Van Voorhis Elementary School will be closed upon completion of our new LEED school which is has been designed to be environmentally friendly, leaving little negative impact. We are excited at the prospects to further what we have started in this older building. Our new school (Kingsolver) will provide a model of the best in sustainable, earth-conscious design. We will be able to move our greenhouse to a facility that offers a pulper for reducing water waste, solar power as a green energy alternative, and a design that maximizes what is truly a green school. In conjunction with our amazing community partners and teachers dedicated to fostering knowledgeable, concerned students well-prepared to take their role in a 21st century economy, we are anticipating an amazing future.

