

## 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 early learning to 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 and sustainability education.
3. Neither the nominated public school nor its public school district is refusing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review. 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

**Public**    Charter    Title I    Magnet    Private    Independent    Rural

Name of Principal: **Mrs. Ashley Workman**

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

Official School Name: **Junior Elementary School**

(As it should appear on an award)

Official School Name Mailing Address: **49 West 1<sup>st</sup> Street Belington, WV 26250**

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

County: **Barbour County**

State School Code Number \*: **202**

Telephone: **(304) 823-1200**

Fax: **(304) 823-2895**

Web site/URL: <http://juniorelementary.wixsite.com/juniorelementary> E-mail: **Ashley.workman@k12.wv.us**

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

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



(Principal's Signature)

Date: **January 28, 2019**

Name of Superintendent: **Mr. Jeff Woofter**



District Name: Barbour County, West Virginia

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

Date: January 31, 2019

(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: West Virginia Department of Education

Name of Nominating Authority: Ms. Robin Sizemore

(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 28, 2019

(Nominating Authority's Signature)

**SUBMISSION**

The nomination package, including the signed certifications, narrative summary, documentation of evaluation in the three Pillars, and photos should be submitted online according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509

Expiration Date: March 31, 2021

**Public Burden Statement**

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

## Highlights Report-ready Summary Narrative

### **Junior Elementary School, Barbour County, WV** **“It takes a village...”**

Junior Elementary School is educating the whole child with staff, family, and community. As an African Proverb states, “it takes a village to raise a child”. Junior Elementary School (JES) is deliberately offering sustainable activities within our standard based instruction to encourage students to realize how their learning will impact their future.

Junior Elementary staff, families, and community are educating students at JES with exploration, engagement, and awareness of how our daily work will lead to their successful future. Students are being lead through standard based academics by using multiple strategies incorporating all tools available as a 21<sup>st</sup> Century education setting. The students are making real-life connections with their daily math and reading instruction. As students utilize our environmental surroundings and appreciate the connection and application to daily life, their learning becomes future preparation for success.

Junior Elementary has made great strides the last few years in their journey to excellence. A WV Priority School designation tightened the focus by Barbour County, Administrators and the consistent staff to follow proven, research-based strategies to improve the achievement of all Junior Elementary students. The common goals have been diligently addressed with laser focus, assistance from a WVDE grant award and several outside consultants to assist with the pathway to success. Spring of 2017 saw Junior Elementary reach a “Tipping Point” with achievement scores. Data verified improvement and excellence with academic proficiency, attendance, and behaviors causing Junior Elementary to be recognized as a WVDE Showcase School, no longer designated as a Priority School. Junior Elementary identified as a staff that our students need to see why they are learning and make learning relate to opportunities at our front doors. We utilize our families and community to offer unique opportunities of learning for students. We work with Spruce Knob Experience Learning to expose students to science, health, math, and social studies around our campus. We explore our local watershed, riparian buffer zones, and ecosystems outside our classrooms. We work with our community partners of the DEP, DNR, USDA, Lions Club, and local coal miners in an outside education program. We take all students to a local farm pond and students experience lessons followed by fishing. In the winter months we take kids outside for sledding and snow activities during their PE classes. As well as tapping sugar trees where we then trade sugar water for maple syrup.

Our staff and families have acknowledged that our students thrive from engagement with hands on and outdoor activities. We see that students need to have brain breaks to keep their focus during classroom instruction. The teachers have started “The Daily Mile” stopping instruction for 12 minutes and have all students walk or jog a mile, or do 12 minutes of dancing or relay races. The 12 minutes away from their seats have proven to refresh students so the return to instruction is top quality, focused and effective.

## Highlights Report-ready Summary Narrative

Our students have carried very high attendance percentages with low chronic absences for the last two years. We have teamed up with our families to teach the importance of our student's attendance daily. We celebrate their individual success with their attendance. We also have seen the connection of great attendance with high achievement academically and decreased behavior referrals. We pair with WVU extension service to provide students with health education that improves their daily living. We teach healthy eating habits, plants they can grow inside their homes, and healthy fitness activities for their homes. All of these activities have contributed to our attendance rates improving and growing.

We have been awarded the WV Sustainable Schools Grant that will allow us to purchase a class set of mountain bikes, two staff bikes, and tricycles. The bikes will be used for brain breaks, recess, and PE classes. Our families can check the bikes out after school to ride with their children. We will add biking to our travel WV program that we are starting this spring. The Travel WV program will provide pedometers for each child to wear daily. They put their pedometer on as they go through breakfast every morning. Each day the total mileage for the class will be recorded. We then will transfer the weekly totals to our centrally located WV bulletin board with our state outline. All WV landmarks are pictured on the outline where we will mark each classroom's mileage as they travel the state. We will use yarn and pins to show students how far they walked and biked around WV landmarks that will lead to a connection to history and geography lessons.

All staff is involved in our academic, attendance, and behavior growth. Our school cook, custodian, counselor, and secretary are part of our PBS plan as they teach, participate in class projects, and even lead quarterly award's day programs.

All the sustainable activities within our standard based instruction, are encouraging students to see the significance of learning in relation to their WV futures. It shows students that there are careers in WV to pursue. It encourages Junior Elementary students to continue their hard work and growth mindset as they relate their math and reading lessons to our fun and engaging world around us. Bringing to life the slogan, "Wild and Wonderful West Virginia".



## West Virginia Sustainable Schools Application

County: Barbour County, WV

School: Junior Elementary School

Grade levels: PK -4

School type: Public

Principal's name: Ashley Workman

Principal's email: Ashley.workman@k12.wv.us

Principal's phone: 304-823-1200

Does your school have at least 40 percent of your students receiving free or reduced meals?

X Yes (63.79% for SY 2019)

Total enrollment: 110

Attendance rate: 96.45%

Awards for Sustainability and Action

Has your school, staff or student body received any awards for environmental or sustainability stewardship/action? No

Has your county completed the Environmental Literacy Indicator Tool?

No, Barbour is not part of the Chesapeake Bay Watershed, but is willing to complete the tool.

### PILLAR 1 – ENVIRONMENTAL AND SUSTAINABILITY EDUCATION

**Element 1A:** *Interdisciplinary learning about the key relationships between dynamic environmental, energy and human systems.*

**Question 1.** Which practices does your school employ to help ensure effective environmental and sustainability education? Provide specific examples of actions taken for practice listed below, highlighting innovative or unique practices and partnerships.

a. Are environmental and sustainability concepts integrated throughout the curriculum. If yes, please describe how the Environmental and Sustainability Standards and concepts are taught and indicate in which subjects they are integrated.

Interdisciplinary strategies are used at all grade levels at Junior Elementary School. The plans have a strong STEM focus but also touch Language Arts, PE, Health and Art. Examples are:

- A) The tri-annual Pop-Up Garden Market allows JES students & families to sample, shop (for free) and make recipes from assorted fruits and vegetables.
- B) *Taste It Tuesdays* during PE classes let students taste test a new fruit or vegetable, which is then added to that week's lunch salad bar.
- C) School cooks provide fresh fruit or vegetable snacks during reading classes twice weekly courtesy of the WV FFV program.
- D) The school and PTO have added picnic tables for lunch and outdoor learning activities and hope to add a pavilion soon.
- E) Third and fourth graders grow micro-greens in the cafeteria during winter months.
- F) A paved walking trail around the playground perimeter is used daily by students. It is the source of many contests and challenges including the *Daily Mile*, data from which is used for math applications.
- G) Twice yearly, students visit a local farm pond where DEP, DNR, Lions Club, USDA and American Legion volunteers coordinate environmental and nature lessons.
- H) The *Spruce Knob Learning Project* features student eco-system exploration, such as watersheds, buffer zones, animal tracks and more.
- I) JES sponsors a *Minds in Motion* program to help strengthen children's vestibular systems for balance and coordination.

**b. Describe students' meaningful outdoor learning experiences at every grade level.**

Junior Elementary School provides important learning experiences for students at all levels outside the classroom. Each class at JES (PK-4) plans an annual field trip where students enjoy the beauty and scope of their home state. Each child will experience at least six West Virginia adventures before moving on to middle school. Examples include:

- A) Pre-school and kindergarten students and family members visit the Game Farm in a nearby county each year to learn about WV wildlife. They also journey to Rich's Farm to explore forests, pumpkin patches, and a variety of landscapes.
- B) The first-grade class, family members and staff make an annual day trip to hike up to Seneca Rocks and participate in a guided tour of Smoke Hole Caverns.
- C) Second graders enjoy an entire day at historic Prickett's Fort to experience 18<sup>th</sup> century living and frontier traditions such as weaving, blacksmithing, candle making and carpentry.
- D) The third-grade trip exposes students to the natural splendor of Blackwater Falls and riding horseback through the hills of Canaan Valley Park.
- E) Pupils in fourth grade return to Blackwater during the winter to participate in sledding events and then visit nearby Timberline Resort.
- F) Entire school trips near campus include: the local farm pond fishing event; the Spruce Knob water sampling experience; nature walks and collections; and an educational trip to the local fire hall for safety tips.

**c. Professional development (PD) opportunities in environmental and sustainability education are provided for all teachers through the WVDE, WVDNR, The Mountain Institute, NASA IV& V, WV Science Teachers Association, WV Environmental Education Association, Project WET, and many others. Please describe professional development opportunities addressing environmental and sustainability standards in which your teachers have participated. Include the name and date of the PD, organization offering the PD, and the teachers who participated in these opportunities over the past 2 years. Also describe how the PD was implemented into the classroom.**

In addition to staff development programs provided each August and throughout the school year by Barbour County Schools and the WV Department of Education, the Junior staff understands the importance of environmental and sustainability education as interdisciplinary strategies.

For example, during the first semester of FY19, Junior has received training through the WV Extension Service in such topics as: *The Germ Stops Here; Lego Robotics; Show Me Nutrition, the WV Garden Challenge and Learn, Grow & Eat*. The school has also partnered with NASA IV & V for training visits in robotics and space exploration.

The JES staff participates in several development activities geared towards the expansion of its Healthy Schools initiative. Each year the staff reviews the American Academy of Dermatology curriculum to promote healthy skin care for students. The school currently has submitted a grant through the AAD for an outdoor sun shelter for the school playground area.

Junior's School Improvement Interventionist (WVDE) provides ongoing training and support in areas such as positive student behavior, attendance and motivation. The after-school Kid Reach program, sponsored by World Vision, leads an annual PD session on *Minds in Motion*

and its applications for physiology and cognition in the classroom. Finally, as mentioned, the DNR, DEP and USDA all provide instruction for the school's nature trips.

**d. Are environmental and sustainability concepts integrated into assessments? If yes, please describe assessments and level of proficiency in the assessments.**

Yes. Environmental and sustainability concepts are now being integrated into assessments and planning at Junior Elementary School. By using a blend of statistical and anecdotal data, the school staff can better measure the impact and success of its related programs.

For example, following each field trip, students complete written and discussion-based reflections on the experience, sharing questions, opinions and highlights from their individual perspectives. The same process is followed after each monthly visit from the WV Extension Service agents and educators on the topics listed in Section C.

Statistics are maintained and/or charted on measurable activities such as Germ City, Pop-Up Market feedback and Taste It Tuesday opinions. The school's health teacher conducts student assessments as part of the AAD supplemental skin care curriculum.

Performance measures are tabulated and maintained by staff members for the weekly *Minds in Motion* project. The teachers also complete data analysis on resulting attendance trends and classroom on-task and behavior rates as well.

A final illustration might involve students using data from their *Daily Mile* activity to keep track of distances traveled, calories burned, and even how far on a map they may have traveled during a week, month or year. In a broader sense, the school can mark resulting progress by analyzing annual Fitnessgram results.

**e. Does your school serve grades 9 - 12?** No, Junior Elementary is a PK-4 school.

**f. Does your school have an environmental or sustainability literacy requirement? If yes, please describe your school's environmental or sustainability literacy graduation requirement.**

Technically, no. Since it's an elementary school, JES does not have graduation requirements. However, Barbour County Schools has applicable graduation requirements embedded within the curriculum at Philip Barbour High School. For example, all students at PBHS must earn a credit in Earth Science, which includes significant components dedicated to curbing pollution, conservation, environmental protection and sustaining our world for future generations. Another graduation credit is earned in Health, which includes both global and personal aspects of protecting one's self, others and society as a whole. To receive a diploma from BCS, students must successfully earn credits in both of these mandatory classes. Environmental and sustainability literacy also are central points in a number of elective courses such as: Environmental Science and several career-technical offerings (e.g. Vo-Ag courses).

The staff at Junior sees part of its role as preparing its students for success in the middle and high school years, through graduation, and then in adulthood as informed, productive citizens. Appreciation for nature and the world around them is reflected in the JES science and health curriculum as well as the special programs mentioned earlier. Many of the school's Science Fair projects, for example, focus on clean water, soil and air, litter control and issues

related to fracking, coal mining, etc.

**Element 1B:** *Use of the environment and sustainability to develop Science, Technology, Engineering, Arts, and Math (STEAM) content knowledge and thinking skills to prepare graduates for the 21st century technology-driven economy.*

**Question 2.** How does your school utilize the pedagogy of environment-based education? This pedagogy emphasizes 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 from evidence.

During her daily walk-throughs of classes, the principal uses a classroom observation software program called eWalk to monitor academic engagement and instruction. The instrument's template helps her to analyze how teachers are using the Seven Standards of Improvement. Teachers develop positive climates and cohesive cultures by modeling, checking for understanding, and collaborating with students and parents. To observe West Virginia DOE standards in curriculum skills, the staff focuses on student reflection and higher order thinking.

Additionally, teachers encourage students to look for connections before, during, and after each lesson. Students routinely complete shared reading activities and then reflect individually, in small groups and as a class. Teachers extend the art and science of teaching by using differentiated instruction, technology, problem-based learning, and the use of data analysis, as mentioned in the environmental project section above.

Teachers maintain pupil engagement through small group work, the teaching of active conversations and effective questioning strategies. The staff uses revealing, insightful assessments to check for understanding, while students complete tasks that require strategic reasoning, performance, portfolio maintenance, self-reflection, and other beyond-the-basics application assessments to demonstrate mastery.

**Question 3.** How does your school use sustainability and the environment as a context for learning green technologies and career pathways? Please describe the college and career connections.

Once again, as a PK-4 school, Junior Elementary does not directly work with students' graduation requirements or career pathways. (See Section F above) However, the school is very much aware of its important role in preparing the children within its student body for the rest of their journey through the Barbour County school system and eventual graduation from Philip Barbour High School. The programs and curricula in use at JES are designed to expose students to future career options that are available within the local community, West Virginia, the United States and globally. The administration and staff works with local governmental and service agencies and area businesses to bring in guest presenters to talk about their jobs and motivate students, providing them with information that will help shape their career choices and appreciation for green technologies and occupations. A few specific examples include the school wide Science Fair, a Reading Fair, an annual Social Studies Fair, community litter pick-ups and the fishing trips. Junior's school intervention specialist leads a weekly history club after school, and a county high school senior conducts a weekly dance class during after-school hours. The local WVU Extension Office has presented six special programs to students at Junior

already this year, as previously noted, in areas directly related to green topics and a healthy environment.

**Question 4.** Do your students graduate with robust general science education that includes a deep understanding of life, physical, and earth sciences. Please describe and give specific examples.

Yes, again with the caveat that Junior is an elementary school, its students leave JES meeting West Virginia's science college career readiness standards for this level. They are provided a strong foundation for the rest of their educational journey through Barbour County Schools. Beyond the fundamentals explored in the standard state curriculum that covers life science, physical science and earth science, children at the JES benefit from the staff's aggressive efforts in bringing in supplemental resources and programming. Such enrichment in recent years has helped the school realize a steady and significant improvement in its WV standardized testing performance.

As a very low SES community, Junior must strive to provide extra time, extra help and extra opportunities for its children. A routine has been established that exposes students to six meaningful WV field trip experiences that feature critical STEM learning opportunities and hands-on learning adventures. With the new Experience Learning Curriculum that the school is diving into during 2018-19, students are now provided deeper and more robust exposure to many science-centered projects such as watershed studies, water sampling, and buffer systems. This syllabus is in addition to the various programs and projects previously described in this document.

**Element 1C:** *Development of civic engagement knowledge and skills, and students' application of these to address sustainability and environmental issues in their community.*

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

When Junior Elementary School was identified as a West Virginia "Priority School" in 2014, the staff and LEA embarked upon a plan to transform the school in four ways: 1) Teacher/School Leader Effectiveness; 2) Implementing Comprehensive Instructional Reform Strategies; 3) Extending Learning Time and Creating Community-Oriented Schools; and 4) Providing Operating Flexibility and Sustained Support. All four are now addressed regularly at Junior, with special emphasis on family, community and civic involvement.

Junior Elementary School has become very involved with parents, civic organizations, the community and businesses nearby. The school publishes weekly features in the county newspaper to celebrate student successes while nurturing family and citizen interest. Teachers also ask families to read these articles with their children to improve literacy skills.

As noted, JES has many formal partnerships, such as the local fire department for fire safety lessons. Others include local coal mines, DEP, DHHR, WVU Extension, USDA, NASA and various career guest speakers to broaden students' knowledge on how their current studies will lead them one day into satisfying, well-paying jobs. The past few years have also seen a dramatic increase in parent/family involvement before, during and after school, as well as during summer camps, and in activities, programs and projects sponsored by JES.

**Question 6.** Describe students' civic/community engagement projects integrating environment and sustainability topics.

One of Junior's four transformation pillars focuses directly on civic and community engagement, with special emphasis on the inclusion of parents and family members. Following are just two of many examples.

First is the school's sponsorship of two fishing expeditions each year to local ponds. Led by community agency volunteers and attended by parents and siblings, the children are exposed to science, math, literacy and health topics in an interesting and exciting way as they hook and release a few fish. Each class travels by bus to take its turn for nearly an hour in a small outdoor classroom atmosphere. After enjoying a healthy picnic style lunch prepared by school cooks, the children hear presentations by expert volunteers on topics ranging from animal science and farming to mining demonstrations and environmental protection. Then, each student is provided a fishing pole, and instructions if needed, as they fish one-on-one with an adult helper.

A second example involves the annual spring clean-up around the campus and surrounding community. This occurs on monthly basis, weather-permitting. The highlight is a formal Adopt-A-Highway project each spring which includes school staff and family members. Students take the leadership role in collecting and disposing properly of trash and litter along the roadway between the river and the school to practice ecology and beautify the school surroundings.

**Question 7.** Please describe your partnerships with local academic, business, government, nonprofit and informal science institutions to help advance your school, other schools (especially schools with fewer resources) and the greater community toward the 3 Pillars. Include both the scope and impact of these partnerships.

Several such partnerships between JES and local institutions have been described previously (e.g. NASA with the robotics program, EPA with the fishing outings, WVU with monthly enrichment presentations on health, gardening, etc.) Following are a few additional partnerships that help advance the school and its students.

- A) JES partners with the Matthew 25 Ministry program each year to work with families in programs designed to promote healthy engagement at both school and home. The ministry also helps provide needy students with free winter coats.
- B) The school has made arrangements with a nearby medical clinic to provide free flu shots for its students and staff during November of each year.
- C) Junior Elementary hosts the WV SMILE mobile dentist program twice annually to provide students with opportunities for dental exams, cleanings, fillings and extractions at school without affecting their attendance.
- D) Germ City is a popular program provided for students by the county extension service twice yearly to teach them the benefits of cleanliness in staying healthy.
- E) The WVU Healthy Kids Coordinator is scheduled for six weeks of supplemental lessons in grades 1-4 to promote healthy living and movement education.

**Question 8.** Describe any other ways that your school integrates core environment, sustainability, STEM, green technology and civics into curricula to provide effective

environmental and sustainability education, highlighting on innovative or unique practices and partnerships.

To avoid repetition, it should be noted that the responses to Questions 1-7 include accurate descriptions of Junior's integration of environmental, sustainability, STEM, green technology and civics in its traditional curriculum and especially in its innovative, unique and enrichment practices and partnerships.

## **PILLAR 2: HEALTHY SCHOOL ENVIRONMENTS**

**Element 2A:** *An integrated school environmental health program based on an operations and facility-wide environmental management system that considers student, visitor, and staff health and safety in all practices related to design, construction, renovation, operations, and maintenance of schools and grounds.*

**Question 1.** The WV Code requires all schools in WV to develop and implement an Integrated Pest Management plan and follow the best practices outlined by the WV Department of Agriculture, found at <http://www.wvagriculture.org/images/Regulatory/Forms-Regs-Info/PRP-61-12J.pdf>. Please describe exceptional components of your school's plan.

Junior Elementary School follows all required policies and procedures of West Virginia state code related to its Integrated Pest Management plan. The current service contract is with Ehrlich Exterminators of Belington. The school kitchen is inspected once monthly all year round. All checklists, inspection reports, findings and remedies are recorded in a logbook on site.

Other pest control needs at JES are addressed through the Maintenance Direct software program. Reports are evaluated by the county maintenance department and pest control contractor as necessary. When pesticides are used, letters of notification are sent home to parents. All IPM data is maintained within the MD software system.

**Question 2.** List practices does your school employ to minimize exposure to hazardous contaminants?

- Our school enforces the prohibition of tobacco products on campus, in public school buses, and at school-sponsored events in compliance with WVDE Policy 4373.
- Our school has identified and properly removed sources of elemental mercury and prohibits its purchase and use in the school, as stated in policy 6200.
- Our school uses fuel-burning appliances and has taken steps to protect occupants from carbon monoxide (CO) with use of CO alarms that meet the requirements of the National Fire Protection Association. **(natural gas oven in kitchen)**
- Our school has annually tested all frequently occupied rooms at or below ground level for radon gas and has fixed and retested all rooms with levels that tested at or above 4 pCi/L OR our school was built with radon resistant construction features and tested to confirm levels below 4 pCi/L.
- Our school has identified any wood playground or other structures that contain chromate copper arsenate and has taken steps to eliminate exposure.

Provide specific examples of actions taken for each practice listed above.

Junior Elementary is a tobacco-free school, as reflected in its policies, handbook and school signage. The school has eliminated the use of elemental mercury – even the thermometers are digital. The natural gas oven in the kitchen is annually inspected, vented to

the outside and meets NFA standards. Otherwise, the school is totally electric. With the major renovation projects of 2010 and 2016, Junior Elementary School now has radon resistant construction features. As a one-story structure, however, it is thoroughly tested whenever a mandate is received by the Department of Environmental Protection. All playground equipment at JES is modern and made of metal or approved, non-chromate copper arsenate woods, following a complete PTO playground renovation in 2013.

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

All cleaning solutions used at Junior Elementary School are state-approved and purchased through a certified vendor through the Barbour County Board of Education. Cleaning agents and other chemicals are carefully inventoried, stored and locked in a limited number of secured locations, accessible only by authorized personnel. JES cooks, custodians and identified staff members are trained at the beginning of each school year on how to handle these materials in a safe and environmentally responsible manner.

**Question 4.** Describe actions your school takes to prevent exposure to asthma triggers in and around the school. (i.e. following the EPA's IAQ Tools for Schools or National Asthma Education and Prevention Program's (NAEPP) Asthma Friendly Schools guidelines)

Students at Junior Elementary School with asthma are identified through the school's SAT or IEP process and adhere to the LEA's self-carry medication policy. The school nurse and teachers are made aware of individual student needs. The nurse, custodian and staff insure that the school is kept as clean and dust-free as possible, and JES has modern, monitored roof HVAC system following a 2010 SBA renovation. Junior is designated and labeled as a tobacco-free facility and is identified and labeled as an "exhaust free" zone from idling school buses and other vehicles. The school also avoids using fragrant air fresheners.

**Question 5.** Describe actions your school takes to control moisture from leaks, condensation, and excess humidity and promptly cleanup mold or removes moldy materials when it is found (i.e. following the EPA's IAQ Tools for Schools and WV Policy 6200, 1110. 09).

In addition to the steps taken at JES as noted in Question 4 for asthma concerns, the LEA conducts monthly inspections for signs of environmental health issues. These assessments include the HVAC system and vents, changing filters and looking for evidence of leaks, excess humidity, water or mold. When noted, a thorough cleaning is conducted, and the district maintenance supervisor is immediately contacted for further remedies as required. All staff members are required to report any heating, air conditioning, air flow and dampness concerns to the principal, who immediately relays the information to the county office through the Maintenance Direct online program for repair or remediation.

**Question 6.** Our school has installed local exhaust systems for major airborne contaminant sources. Yes, regularly inspected rooftop units serve all classrooms and other areas at Junior.

**Question 7.** Describe your school's practices for inspecting and maintaining the building's ventilation system and all unit ventilators to ensure they are clean and operating properly. (i.e. a documented preventative maintenance program)

The HVAC system at Junior Elementary was completely replaced in 2010 during an SBA Needs Project, as the 1979-era rooftop units no longer met ASHRAE fresh air standards. Today's

modern units meet all current standards in carbon dioxide, temperature and relative humidity. The system is inspected monthly by trained county maintenance staff members, with recommended percentages of outside and inside air flow ventilation closely examined and all filters changed regularly. Barbour County Schools' HVAC units are all linked to an off-site computerized school climate program which constantly monitors each school, allowing authorized staff to log for pertinent data from any computer terminal or laptop.

**Question 8.** Describe actions your school takes to ensure that all classrooms and other spaces are adequately ventilated with outside air, consistent with state or local codes, or national ventilation standards. (i.e. adherence to ASHRAE 62.2 and verification method)

Much of this has been addressed in Question 7 above. Because of the West Virginia SBA-approved, contemporary units now in place, along with the regular inspections that occur at Junior Elementary School, adequate ventilation and outside air percentages are regularly maintained. Data evidence is logged by the county maintenance department in adherence to ASHRAE and DEP verification requirements. Since the system is automated and programmable, the element of human error in operation of the units is minimized or eliminated, resulting in greater reliability and increased energy efficiency.

**Question 9.** Describe other steps your school takes to protect indoor environmental quality such as implementing EPA IAQ Tools for Schools and/or conducting other periodic, comprehensive inspections of the school facility to identify environmental health and safety issues and take corrective action.

To complement regular inspections by the maintenance department, the State Fire Marshall, the West Virginia Bureau of Risk and Management (BRIM), the fire suppression contractor, pest control and the Barbour County Health Department, Junior implements an "all hands-on deck" approach to keeping the school safe, environmentally healthy and clean. Students have painted hand washing murals in school bathrooms.

The school offers hand sanitizer stations and conducts a daily desk cleaning time. It provides fresh water jugs in addition to clean water fountains. JES has also worked with a local DEP mine reclamation team to conduct studies and safety checks of the reclaimed mine site behind the school playground, resulting in a wonderful curriculum unit for children on WV mining. Whenever environmental health or safety issues are raised, the school routinely takes care of minor issues, and immediately seeks guidance and support from the Board of Education in taking effective corrective action on concerns that are new or potentially major in scope.

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

**Question 10.** Please mark (click on the box) practices your school employ to promote nutrition, physical activity and overall school health? Provide specific examples of actions taken for each checked practice, focusing on innovative or unique practices and partnerships.

- Our school has an on-site food garden. (e.g. 3<sup>rd</sup> and 4<sup>th</sup> grade micro-green plants)
- Our students spent the minimum hours per week in school supervised physical education, according to the requirements of WV Policy 2510.
- At least 50% of our students' annual physical education takes place outdoors.

Our school participates in the USDA's Healthier School Challenge (list level and year below).

JES is interested in learning more about this program.

**X** Health measures are integrated into assessments i.e. FITNESSGRAM, HEAP.

N/A Our school purchases food that is labeled organic, fair trade, rainforest alliance, etc. (list percentage of total food purchases).

Junior Elementary School's third and fourth grade classes spend the winter months planting and cultivating a micro-green garden in the cafeteria. These items are selected for use on the school salad bar under the supervision of the school cooks and classroom teachers. JES also has a space behind the school that is used as an outdoor learning area, where students plant flowers and shrubs. It could be expanded to include garden vegetables as well.

JES students meet or exceed the state requirements for instructional hours, as monitored by the school's physical education and health teachers. Mandatory and voluntary fitness assessments are conducted regularly at Junior Elementary. PE classes (and recess periods) are held outdoors in the fresh air whenever the weather permits, even in moderate days of winter. Most years, this totals well over 50%.

Individual and group Fitnessgram data, are tools used by the staff to annually measure student progress and trends in physical health and wellness.

While Junior Elementary School's food pantries are stocked through the LEA's cooperative purchase contracts with USDA and state-approved certified vendors through the established bid process, it does not currently include organic, fair trade, rainforest alliance products.

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

Junior Elementary School provides several supplemental physical activity opportunities for its students beyond the required numbers of minutes during physical education classes and during recess breaks. Examples include:

- A) The school has partnered with WVU Healthy Kids to send a coordinator to JES to provide a six-week program dedicated to healthy living and movement education for all students in grades 1-4.
- B) A paved walking trail around the playground perimeter is used daily by students. It is the source of many contests and challenges including the *Daily Mile* project.
- C) The school has added an outdoor classroom learning area, which is conducive to outdoor stretch and exercise breaks.
- D) Twice yearly, students visit a local farm pond where DEP, DNR, Lions Club, USDA and American Legion volunteers coordinate environmental and nature lessons.
- E) The *Spruce Knob Learning Project* features student walking and eco-system exploration, such as watersheds, buffer zones, animal tracks and more.
- F) JES sponsors a *Minds in Motion* program to help strengthen children's vestibular systems for balance and coordination.

Because the school staff and community understand the importance of physical fitness and wellness, this project for the acquisition of sets of bicycles and helmets for use on and near the school grounds, during and after school, by students and family members, is being strongly

advocated.

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

Most of the efforts at Junior related to nutrition, fitness and overall wellness have been described in some detail in previous sections. Many are unique to JES and designed to meet the needs of this small, rural community and its children. Projects such as *Minds In Motion*, which helps students to strengthen brain connections four times weekly, the *Daily Mile*, the twice-weekly fresh snacks, the WVU Health Coordinator visits for six weeks, the dentistry visits, the flu shot clinic, the skin care curriculum, community service programs and *Go Noodle*, a body and brain exercise tool, reflect just a few of the extra efforts being made by the administration and staff at Junior Elementary School. All programming related to the important topics of student fitness and lifetime wellness are endorsed and supported by the school's faculty senate, Local School Improvement Council, PTO, the JES curriculum team, and Barbour County Schools.

### **PILLAR 3: ENVIRONMENTAL IMPACT AND ENERGY EFFICIENCY**

**Element 3A.** *Reduced energy use and/or greenhouse gas emissions through the use of an energy audit or emissions inventory and reduction plan, cost-effective energy efficiency improvements, and on-site renewable energy and/or purchase of green power*

**Question 1.** Does your school use any database or benchmarking tools, such as EPA's Portfolio Manager or School Dude's energy management module, to track your school's utility consumption? Yes. For the past decade, Junior has used cloud-based School Dude and more recently, its *Maintenance Direct* derivative as its facilities management solution product. This implementation is designed to simplify the work order and preventive maintenance and repair processes.

**Question 2.** Has your school reduced its total non-transportation energy use from an initial baseline? Yes. Beyond transportation (e.g. school bus scheduling and fuel efficiency) savings, Junior Elementary School has realized energy cost savings of an estimated \$135,000 during the past eleven (11 years). During 2007-08, Barbour County Schools enrolled and invested in the EEI energy efficiency program. From the summer of 2007 through the fall of 2011, the LEA had realized energy savings of \$928,630.26. That figure has nearly tripled in the ensuing seven-plus years. Since Junior's enrollment represents approximately five percent (5%) of the district's total, the calculation used was  $.05 \times \$2.7$  million, or \$135,000 in savings from the baseline rates reflected in 2007. It should also be noted that the school underwent a major renovation and expansion in 2009-10 through a WV SBA Needs grant project, which included total replacement of the aging HVAC system on site.

**Question 3.** Has your school received EPA ENERGY STAR certification or does it meet the requirements for ENERGY STAR certification? No – While many of the conservation efforts at JES address requirements for Energy Star certification (HVAC ASHRAE standards and the 2016 LED light project), the school has not received an official EPA Energy Star certificate.

**Question 4.** Does your school produce or purchase fuel from any renewable sources and/or programs? No.

**Question 5.** Has any part of your school facility been newly constructed or undergone any renovations in the past five years that meets the standards of ASHRAE’s Advance Energy Design Guide, Leadership in Energy and Environmental Design (LEED), Collaborative for High Performance Schools (CHPS), Green Globes, or other green building standards? Yes. Junior Elementary School benefited greatly from a 2015-16 School Building Authority Needs award when the state grant of \$4.6 million was used to supplement a local contribution of almost \$2.4 million. Its focus was almost exclusively upon energy management upgrades and controls that have resulted in not only substantial savings to the school system and local taxpayers for the coming decades, but in the creation of positive physical atmospheres that are more conducive to learning for its children. At JES, the upgrades to ASHRAE and industry standards included improved LED lighting, integration of HVAC and vent components, modern meters for utilities, water conservation equipment, and installation of interior reflective window film. Additionally, a major renovation project was completed earlier in the decade, about eight years ago (as described previously in this application). The school now meets modern ASHRAE Advance Energy Design standards and is enrolled in the EEI Energy Efficiency program.

**Element 3B:** *Improved water quality, efficiency, and conservation.*

**Question 6.** Can you demonstrate a reduction in your school's total water consumption from an initial baseline? Yes. Comparison of water consumption and cost data from the period covering the spring of 2017 to present shows a reduction of more than 5 percent at Junior, partially due to enrollment changes and partially due to conservation efforts and the school’s “green” ecology awareness campaign.

**Question 7.** Describe your school’s landscaping practices, including the amount of your school grounds devoted to ecologically beneficial uses. Yes. Several EPA recommendations and checklist items are reflected in the landscaping practices at Junior Elementary School. The former coal mining site directly behind the school is observed and inspected regularly by the school staff and its partners in the DEP and DNR for potential shifting of the slope or hazardous rain run-off. The playground between the hill and school includes modern, safe and approved apparatuses, all installed within the past six years, and well-maintained, state-approved pea gravel and mulching optimize student safety. The adjacent outdoor learning area includes a student garden spot with flowering shrubs and plants. The school lawn areas are mowed and trimmed on a regular basis to help keep the campus neat and attractive. Finally, students and staff volunteer to conduct weekly trash pickups around the building and grounds and have adopted the entry roadway from town to the school entrance for litter patrols several times per year, including the strip between the JES driveway and the river.

**Question 8.** Describe any efforts or programs you have in place to

- reduce storm water runoff and/or reduce impermeable surfaces,
- protect water source from potential contaminants, and/or
- control lead in the drinking water. (1200 characters max)

A system of water diversion ditches and collection points on campus prevent flooding of the property and the surrounding area, especially the hundred yards or so between the school and the Tygart Valley River. The new system of pea gravel and mulch in the playground/garden area behind the school helps to provide a more permeable surface, eliminating serious problems

with storm run-offs. The school custodian, cooks, and staff members use only state-approved chemical-based cleaning products on campus. The contracted pest control service follows all regulations and makes mandatory notifications to parents and school personnel. The septic system at Junior is inspected every month to ensure that it is operating efficiently and cleanly, posing no hazard to the school community or surrounding neighbors. The chilled drinking water at JES is provided in large jugs and through its water fountains, sourced by the Central Barbour Public Service District in Belington, is regulated and governed by the Public Service Commission of West Virginia.

**Element 3C:** *Reduced solid waste production through increased recycling, reduced consumption, and improved management, reduction, or elimination of hazardous waste stream.*

**Question 9.** What percentage of solid waste is diverted from land filling or incinerating due to reduction, recycling and/or composting? Please describe how you have determined this reduction, including calculations if possible.

A small percentage (less than 5%) of solid waste products at Junior is diverted from land fill or incineration. The school does emphasize economical and ecologically-friendly use of resources, from the cafeteria to the classroom. Though it did in the past (early 2010's), the school (and LEA) does not presently have a recycling program in place. JES follows all policies and procedures established by Barbour County Schools.

**Question 10.** What percentage of your school's total office/classroom paper content is post-consumer material, fiber from forests certified as responsibly managed and/or chlorine-free?

Junior Elementary School uses an environmentally-friendly paper blend of 30% recycled, post-consumer composition, certified by the Forest Stewardship Council, to ensure that the products do not harm the local community or natural environment. Bids are secured each year from vendors such as Staples and Champion Industries (the current partner). While JES uses 30-40 cases of classroom/copier paper per year, the LEA purchases some 600-700 cases. The advent of the district's new Chromebook initiative (see Question 11) will result in even more responsible use of paper resources.

**Question 11.** Describe measures taken to reduce solid waste and eliminate hazardous waste.

In addition to steps already mentioned in this application, Junior Elementary School does not purchase or lease any flammable or mercury-based products. Even the school thermometers are digital in the science classes. Early in the 2018-19 school year, JES joined other schools in the LEA by blending high technology to best practices through its new comprehensive Chromebook 1:1 computer learning program. By placing these resources directly into the hands of all students and staff members, much of the teaching, learning and interaction can take place on-line, eliminating the need for paper copies of lessons, worksheets, books and tests. The school anticipates a major savings in reducing solid waste with regard to paper products when final statistics are compiled next June.

**Question 12.** Does your school use third-party certified green cleaning products as part of their custodial program? Yes. The majority (well over 50%) of the cleaning products used at Junior Elementary School are natural or eco-friendly, making them healthier for use by the school community. Examples found on the 2018-19 school purchase list and inventory include Green Seal cleaning products and trash bags made with reprocessed resins. Each year the Board of

Education bids out these items from vendors such as Staples and Winans Services, with an eye on cost-efficiency and products that are ecologically friendly.

**Element 3D:** Expanded use of alternative transportation to, during and from school, through active promotion of locally available options and implementation of enabling projects and policies.

**Question 13.** What percentage of your students walk, bike, bus, or carpool (2 + student in the car) to/from school? (Note if your school does not use school buses.)

Nearly 95% of the students who attend Junior Elementary School arrive on school buses or by parent/family carpools. The remaining 5% live nearby and either walk or ride bicycles to school. Since the school is located in a relatively remote and rural part of Barbour County, most children do not have the option of traveling by foot or cycle. However, it is anticipated that the addition of the daily bicycle program will encourage some children who live near the school to form bicycle-riding groups and habits and pass them along to their friends and family members.

**How is this data calculated?**

These percentage totals are estimated by the school staff based upon their observations and interactions with children, parents and bus operators on a daily basis.

**Question 14.** Please list additional practices or policies your school employs.

Vehicle loading/unloading areas are at least 25 feet from building air intakes, doors, and windows WV Policy 6200 minimum is 15 feet).

**Describe activities in your above in greater detail.**

Junior Elementary School does not have carpool parking stalls because of the very low number of students who are delivered to school by parents or via carpool. Vehicles, including school buses, do load and unload 25 feet from air intakes, doors and windows to avoid problems with fumes and exhaust in accordance with WV Policy 6200. JES does not have a Safe Routes to School program, again, because of the low number of students who walk or bike to this very rural elementary school. Finally, the school bus fleet for Barbour County includes 95% diesel powered vehicles, but none of them are currently equipped to use alternative fuels or feature bio diesel engines.

**Question 15.** How does your school enforce WV Policy 4336, Section 12, the anti-idling policy that applies to all school buses?

Along with all Barbour County Schools, Junior Elementary observes and enforces WV Policy 4336 by educating parents and visitors about the regulation and the health hazards associated with idling vehicles close to the school. Signage is visible from the parking lot, as provided and installed by the county maintenance department, and reminders are issued by staff members as needed to drivers who leave their vehicles running near the school.

**Question 16.** Describe how your school transportation use is efficient and has reduced its environmental impact.

School buses that serve Junior Elementary School are diesel powered. The district has, in recent years, transformed from a 100 percent gasoline powered bus fleet to 95 percent diesel powered. The remaining few gasoline powered buses are scheduled for retirement in the near future. Additionally, the county administration and transportation department, with input from

the JES staff, use a formula to constantly evaluate the school's bus routes, connections with other schools and pick-up and drop-off times for maximum efficiency. Changes are made annually to best meet student needs, reduce bus travel times and avoid the waste of fuel and precious funds.

**Question 17.** Describe any other efforts toward reducing environmental impact of your facilities and operations, focusing on innovative or unique practices and partnerships.

As a small, rural elementary school, Junior is proud of the strides it has made on behalf of its students and community in recent years. The staff, students and citizens have become more aware of the importance of a quality education and its relationship to a clean and healthy world. The innovative and unique practices and partnerships that have been designed and cultivated have been recounted in some detail throughout this application. The Junior Elementary School community sincerely appreciates the opportunity to submit this proposal and thanks West Virginia Sustainable Schools for its interest in the children and the future of our state.