



2019 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: Dr. Zoletta Taylor

Official School Name: Douglas Byrd High School

Official School Name Mailing Address: 1624 Ireland Drive, Fayetteville, NC 28304

County: Cumberland State School Code Number: 322

Telephone: 910-484-8121 Fax: 910-323-4127

Web site/URL: <http://dbhs.ccs.k12.nc.us/> E-mail: zolettataylor@ccs.k12.nc.us

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

Date: 02/11/19

(Principal's Signature)



Name of Superintendent: Dr. Marvin Connelly, Jr.

District Name: Cumberland County Schools

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

Date: 2/8/2019

(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: NC Department of Public Instruction

Name of Nominating Authority: Mr. Jon D. Long, Architect, School Planning

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

Date: 2/15/19

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



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School Contact Information:

School Name: Douglas Byrd High School
District Name: Cumberland County Schools
School Address: 1624 Ireland Drive
City: Fayetteville
State: NC
Zip: 28304

School Website: <http://dbhs.ccs.k12.nc.us/choice-programs/>
Facebook Page: n/a
Principal Name: Dr. Zoletta Taylor
Principal Email: zolettataylor@ccs.k12.nc.us
School Phone Number: 910-484-8121
Principal Phone Number: 910-484-8121 extension 703
Lead Applicant Name: Denise Renfro
Lead Applicant Email: deniserenfro@ccs.k12.nc.us
Phone Number: 910-484-8121 extension 301

School Information:

School Type: Public
Grades Served: High 9 thru 12
District Type: Urban
Current Enrollment: 1091
Attendance Rate: 92.4%
Graduation Rate: 68.6%

Does your school serve 40% or more students from disadvantaged households? Yes

% Receiving FRPL: 75% (100% with grant)
% Limited English Proficient: 3.75%
Other Measures: none

Is your school in one of the largest 50 districts in the nation? No

Summary Narrative:

Provide a summary narrative describing your school's efforts to reduce environmental impact and costs; improve student and staff health; and provide effective environmental and sustainability education. Focus on unique and innovative practices and partnerships.

Douglas Byrd High School (DBHS) is an urban, Title I school that started a unique program eleven years ago called the Academy of Green Technology (AoGT). The program mission is ***"to prepare students to be the innovators of the next generation as they pursue the technical and collaborative skills necessary to drive the emerging green***



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and global economy". The first four years of the program was a step by step addition of new course work as the incoming freshman worked their way toward graduation. Since then the emphasis has been on outreach and the implementation of wider conservation principles to be embraced by the school at large and passed along to our local community.

The core AoGT program at Douglas Byrd High School is the Green Team. The Green Team is organized by the county Green Schools program but the local schools implement and maintain the team. Select teachers and staff meet monthly to plan sustainability programs, activities and education to improve our green footprint on campus. The AoGT director currently leads the team, but there is also a student green team, composed of AoGT members, OCS students, and students from our new Communities in Bloom club. The students run the local recycle program which is implemented by our occupational studies students. The student green team also conducts surprise room audits to make sure recycle and energy policies are in place, and plan the AoGT sustainability outreach projects. The County Green Schools Initiative, which created the Green Team concept, and the efforts of both AoGT students and DBHS students at large, have resulted in a collaboration that has reduced GHGs, water usage, energy usage, and waste over the past ten years here at Douglas Byrd.

The AoGT program gets the environmental word to the community through its outreach programs. The **Sun Stewards** program has a 14' trailer equipped with portable solar panels and a "room" with lighting, outlets, a sink (with access to a solar water heater), and furniture designed to make it look like a living space. The trailer and our students go to elementary schools, Earth Day Fairs, and local events to teach others about solar energy and energy conservation. Students create and teach the lessons presented. Their biggest event is the Cumberland County School's (CCS) Earth Day Fair for 2nd graders. Students present three different stations to as many as 600 2nd graders.

AoGT and Culinary Arts students have developed a **Communities in Bloom** initiative supported by a recent grant. This community outreach will teach gardening and help the local community grow their own fresh food. Students involved in the initiative will provide programming in container gardening as well as provide the containers, seeds or seedlings, and tools; or they will go to local homes and help prepare a garden if requested. The students will also maintain a greenhouse to grow seedlings and raise fresh food for use in our culinary arts department. The overall goal is to use the greenhouse and gardening program as a cross-curricular tool for any department at the high school. Students are currently planning curriculum and preparing for outdoor gardening while the greenhouse is in the county project phase.

Another AoGT program is the Carbon Sequestration Research Project. Students have designed an experiment where they are planting trees to assess CO₂ sequestration (and bank carbon). The project is coordinated with the Green Schools Initiative and the local Sustainable Sandhills nonprofit organization. Students will have multiple stands of deciduous trees for which they will measure the CO₂ sequestration. They will measure the comparative amounts of CO₂ sequestered from a mixed tree stand compared to a monoculture stand. The trees will also be a



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part of the current Cumberland County Schools Carbon Banking Project. The final planting stage of the two year project occurs in the last two weeks of Feb 2019.

Our ROTC program participates in our green initiatives by identifying and raising our air quality flags each day. Our custodial staff uses green cleaning materials, our cafeteria will be providing compost for our Communities in Bloom program, our bookkeeping staff collects batteries, printer cartridges, and dry erase markers for recycle, and AoGT collects e-waste periodically to be recycled.

Our AoGT classes (Working Toward Sustainability, Sustainable Conservation, and Generating Clean Electrons) also participate in poster conservation activities, test our drinking water, volunteer at the local Energy Summit, and participate in the World Climate Simulation. Even our Weather Balloon Team will occasionally send an experiment up on a weather balloon related to climate or solar curriculum.

We maintain partnerships with the Cumberland County Green Schools, the regional nonprofit Sustainable Sandhills, North Carolina Forestry, County and City Storm Water and Air Quality, the Parks Department, Power and Water of Fayetteville, and multiple local businesses who we assist us in a variety of projects.

Participation and Awards:

1. Is your school participating in a local, state or national school program, such as EPA ENERGY STAR Portfolio Manager, EcoSchools, Project Learning Tree, or others, which asks you to benchmark progress in some fashion in any or all of the Pillars? Yes

<i>Year</i>	<i>Local School Program</i>
2007	Academy of Green Technology (Career Academy/CTE benchmarks)

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

<i>Year</i>	<i>Award Received</i>
2012-19	Green School certified (county level)
2016	Cape Fear Grange Society Teacher of the Year (Sustainability)
2016	North Carolina Grange Society State Teacher of the Year
2014	U.S. Green Building Council North Carolina Green Apple Award Finalist (Staff)
2015	School Energy Incentive Award
2018	School Energy Incentive Award



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Pillar I: Reduced Environmental Impact and Costs

Energy:

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

- Initial GHG emissions rate (MT eCO₂/person): 11,911 MT eCO₂ 2010- 2011= 9.9 MT eCO₂
- Final GHG emissions rate (MT eCO₂/person): 11,355 MT eCO₂ 2017- 2018= 9.4 MT eCO₂
- Net reduction: 556 MT eCO₂ = 0.46 MT eCO₂/person
- Time period: 7/10 – 6/18
- How did you calculate the reduction? Used kWh totals for 2010-11, converted to MT eCO₂, divided by school population. Repeated for 2017-18. Difference represents the reduction.

2. Do you track resource use in EPA ENERGY STAR Portfolio Manager? No

3. Has your school reduced its total non-transportation energy use from an initial baseline? Yes

- Current energy usage (kBtu/student/year): 324,999kBtu/1091 = 297.89/student
- Current energy usage (kBtu/sq. ft./year): 324,999kBtu/22,897= 53kBtu/sq ft 1.
- Percentage reduction: 29.7% (324,999/462,004 = 70.3%)
- Time period: 07/10 - 06/18
- How did you document this reduction? Used School Dude GGI information from Green Schools Coordinator.

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

- On-site renewable energy generation: 0%
- Purchased renewable energy: 0%
- Participation in USDA Fuel for Schools, DOE Wind for Schools or other federal or state school energy program: No

5. In what year was your school originally constructed? 1972

- What is the total building area of your school? 212,897 sq ft.

6. Has your school constructed or renovated building(s) in the past ten years? Yes



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For new building(s):

- Percentage building area that meets green building standards: 0%
- Total constructed area: N/A
- Certification and year received: N/A

For renovated buildings:

- Percentage of the building area that meets green building standards: 0%
- Total constructed area: N/A
- Certification and year received: N/A

Water and Grounds:

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

- Average Baseline water use (gallons per occupant): $2,670,980 \text{ gal} / 1143 = 2,336.8 \text{ gal/occupant}$
- Current water use (gallons per occupant): $1,803,450 \text{ gal} / 1228 = 1,468.6 \text{ gal/occupant}$
- Percentage reduction in domestic water use: $1468.6 / 2336.8 = .628 = 37.2\%$ reduction
- Percentage reduction in irrigation water use: N/A
- Time period measured: 07/2010 - 06/2018
- How did you document this reduction? (ie. ENERGY STAR Portfolio Manager, utility bills, school district reports): Used School Dude report from Green Schools Coordinator

8. What percentage of your landscaping is considered water-efficient and/or regionally appropriate?

- $4,041,576 \text{ sq ft} - 212,897 - 180,000 = 3,646,679 \text{ sq ft}$. Determined by taking total campus square footage (calculated from 89.1 acres) and subtracting building space, parking lot space, sidewalk and road space.
- Types of plants used and location: We have Native Cultivars, azaleas, crepe myrtles, redbuds near the school buildings. Also have a mix of long leaf pine and loblolly throughout campus. Campus has maximum tree density, native species and left largely natural.

9. Describe alternate water sources used for irrigation.

- Well water is used for irrigation of the baseball infield



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10. Describe any efforts to reduce stormwater runoff and/or reduce impermeable surfaces.

- School is subject to state and local regulations, specifically City of Fayetteville Storm Water Program.

11. Our school's drinking water comes from:

- Municipal water source

12. Describe how the water source is protected from potential contaminants.

- Complies with the Federal Safe Drinking Water (PL 93-523). Maintains a complete watershed management program with a primary objective of reducing pollutant loading and stressors coming into the watershed. Watershed management includes land management, water quality management and education. Staff completes field analysis and any abnormalities are investigated.

13. Describe the program you have in place to control lead in drinking water.

- Fayetteville Public Works Commission is water source and it is treated to prevent lead leaching into water as it travels through system to school.

14. What percentage of the school grounds are devoted to ecologically beneficial uses?

- Perhaps 0%, however, a ½ - ¾ acre outreach program is currently being developed that will create a walking space, quiet space, greenhouse, and outdoor gardens. Our campus is also full of natural space with native vegetation. This is purposeful and significant because it is an urban school.

Waste:

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

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

- $8 \text{ cubic yd} \times 4.2 \text{ wk/mo} \times 3 \text{ times/wk} \times 100\% = 100.80 \text{ cu yd/mo}$

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

- $16 \text{ cu yd} \times 4.2 \text{ wk/mo} \times 4 \text{ times/wk} \times 100\% = 268.80 \text{ cu yd/mo}$

C - Monthly compostable materials volume(s) in cubic yards (food scrap/food soiled paper dumpster size(s) x number of collections per month x percentage full when emptied or collected): 0

- Recycling Rate = $((B + C) \div (A + B + C) \times 100)$: $268.80/369.6 = .72$



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- Monthly waste generated per person = (A/number of students and staff): $100.80/1228 = .082$ cu yd/person

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

- We are required by county to order all paper products as 30% post consumer material. So 30%

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

Type:	Material:	Amount:
Flammable Liquids	Propane	less than 1 liter
Corrosives	Bleach	less than 1 liter
	Ammonia	less than 1 liter
	Sodium Hydroxide	less than 1 liter
	Lab Acids	less than 1 liter

How is this measured?

- Used in science classes, purchase amounts recorded on aspreadsheets as well as amounts used each year. Records maintained and corroborated at the county level with the Science Coordinator.

How is hazardous waste disposal tracked?

- County Science Coordinator tracks hazardous waste. Spreadsheets are maintained at the school level by the CHO and the Science coordinator tracks and provides hazardous waste pick-up and disposal by authorized professionals.

Describe other measures taken to reduce solid waste and eliminate hazardous waste.

- All custodial staff use green cleaning materials. Science classrooms purchase only very small amounts of chemicals and work on a microchemistry level. All appropriate SDS sheets and disposal protocols are followed for disposal. Plastics, paper, and aluminum are recycled across the school.

18. Which green cleaning custodial standard is used?

- Have adopted the All Green Seal Products Certification
- What percentage of all products is certified? 100%
- What specific third party certified green cleaning product standard does your school use? Green Seal

Alternative Transportation:

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



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- Approximately 92%. The data hasn't been calculated. The transportation information management system indicates 82% of our students are assigned to a bus. It is estimated that 8-10% walk or bike to school, most live within a mile radius of the school. The remaining students drive (less than 0.5%) or get dropped off.

20. Has your school implemented...?

- Designated carpool parking stalls. No
- A well-publicized no idling policy that applies to all vehicles (including school buses)? Yes
- Vehicle loading/unloading areas are at least 25 feet from building air intakes, doors, and windows? Yes
- Safe Pedestrian Routes to school or Safe Routes to School? Yes

Describe activities in your safe routes program:

- Bike and Walk to School Days, crossing guards, new sidewalks, education through child nutrition student health programs.

21. Describe how your school transportation use is efficient and has reduced its environmental impact.

- No idling signs and education for cars and buses. Buses turned off while loading, start only when leaving. Use of transportation management system to reduce number of buses and make routes more efficient.

22. Describe any other efforts toward reducing environmental impact, focusing on innovative or unique practices and partnerships.

- There is an effort to prioritize release by mode of transportation, thereby limiting students contact with exhaust an increase a safe release. Also, GPS is being installed onto buses to continue improving efficiency through routing, cutting out fuel costs, and improving air quality.

Pillar 2: Improve the Health and Wellness of Students and Staff

Environmental Health:

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

- County-wide routine inspections every 3 months, spray only when needed. County pest management monitors pest issues and maintains records. Use Integrative Pest Management approach using prevention, surveillance and environmentally sound methods. Meets GS 115C-47

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



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- Unaware at this time. There isn't a department head to be able to access the information. However, the IPM completes regular inspections and limits spraying to a need only basis.

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

- Yes - Our school prohibits smoking on campus and in public school buses. Tobacco Free Campus, signage.
- Yes - Our school has identified and properly removed sources of elemental mercury and prohibits its purchase and use in the school. Our Chemical Hygiene Officer from the science department tests for Mercury and maintains Mercury clean-up kits, even though no Mercury exists on campus and none can be purchased per county policy.
- Yes - Our school does not have any fuel burning combustion appliances.
- N/A - 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.
- N/A - Our school has identified any wood playground or other structures that contain chromate copper arsenate and has taken steps to eliminate exposure.

4. Describe how your school manages and controls student and staff exposure to chemicals (including pesticides) routinely used in the school.

- There is a chemical hygiene plan. Green cleaning materials are used by custodial staff. Pesticide spraying only occurs as needed and during after school hours, science rooms using chemicals have fume hoods, chemical sensors are placed in labs, and lab storage has appropriate ventilation systems.

5. Describe actions your school takes to prevent exposure to asthma triggers in and around the school.

- Air fresheners are removed, as are other heavily scented materials. Green cleaning supplies are used so there are no films or scents. Spraying pesticides is done during after school hours, but this is critical to reduce other triggers caused by pests. Air fresheners are discouraged, county policies are strictly followed for moisture and mold conditions. Special care is taken to notify teachers about students with allergy/asthma conditions and dietary concerns are addressed on case by case basis.

6. Describe actions your school takes to control moisture from leaks, condensation, and excess humidity and promptly cleanup mold or removes moldy materials when it is found.

- These are handled by the district/county-wide operations. Work orders are submitted when there is a problem and technicians address these issues. Technicians will then return on multiple occasions to check the work and will prepare for events when they know potential problems are coming. The district also has specific mold protocols.



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7. Does your school have installed local exhaust systems for major airborne contaminant sources? Yes

8. Describe your school's practices for inspecting and maintaining the building's ventilation system and all unit ventilators to ensure they are clean and operating properly.

- Custodial services must regularly clean filters according to strict school policy, and filters are changed every three months or as needed whichever is shorter. Ventilation maintenance is completed by county operations staff. It is inspected regularly, and any additional issues are addressed through work orders.

9. Describe actions your school takes to ensure that all classrooms and other spaces are adequately ventilated with outside air, consistent with state or local codes, or national ventilation standards.

- HVAC and energy tech maintenance are required to maintain equipment on a regular basis. Classrooms and other building spaces must meet specific HVAC requirements. They clean coils and interior of HVAC units, they pull in fresh air per state school code requirements. The school has a new hvac and currently meets current standards, thereby increasing significantly the amount of fresh air in the building (7cfm increased to 17cfm)

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

- The school system implements the EPA IAQ toolkit to inspect facilities. The school thus meets at least the minimum requirements of the state for school environmental health and safety in a variety of areas to include air quality.

Nutrition and Fitness:

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

- Our school participates in a Farm to School program to use local, fresh food: Yes
- Our school has an on-site food garden: No, however funds have been appropriated to begin a school garden program.
- Our school garden supplies food for our students in the cafeteria, a cooking or garden class or to the community: Not currently, the garden program is currently in the planning and development phase and should be fully operational by this 2019-2020. It will provide food for the culinary arts program and plants for a gardening outreach program for the community.
- Our students spent at least 120 minutes per week over the past year in school supervised physical education: No, our students spend 90 min/day in physical education, but they are only required to take one single semester class in their four-year high school program.



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- At least 50% of our students' annual physical education takes place outdoors: Yes
- Health measures are integrated into assessments: Yes
- At least 50% of our students have participated in the EPA's Sunwise (or equivalent program). Food purchased by our school is certified as "environmentally preferable" Percentage: unknown. Type: School does participate as much as possible in a local farm to school program for food.

12. Describe the type of outdoor education, exercise and recreation available.

- Students are required to take one physical education course and they may take advanced physical education courses, weightlifting, or dance. Exercise beyond this is limited to a full complement of high school sport offerings.

13. Describe any other efforts to improve nutrition and fitness, highlighting innovative or unique practices and partnerships.

- The Healthy School's department addresses total child health issues. They have a super field day to educate and encourage fitness. There is also a coordinated School Health, Mental Health, School Climate, and Safety program.

14. Does your school use a Coordinated School Health approach or other health-related initiatives to address overall school health issues? Yes

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

- The County has a School Health Services Department that addresses the health issues of all members of the school system. Adapted PE is offered and other services such as dental screening and a dental van comes to the school. Medications are secured in the office and dispensed according to directions. Teachers have epi pen training and emergency pens are maintained in the office. Teachers also have seizure training, blood borne pathogens training, and general safety training. Health Services distributes information yearly about illnesses, homebound services, and hand washing to name a few. There is a Red Ribbon Program (drug free promise), Drinking and Driving Program before high school prom, an Advisory Board for school health and a wellness policy. The Child Nutrition program at the county level that provides nutrition education and policies that the school follows. The school also participates in the smart snack program and does not allow non-nutritional foods sold during school. Backpack Meals provides food to take home for students in need, and DBHS is a grant recipient that allows for 100% free breakfast and lunch. DBHS also participate in county programs such as national school breakfast, after school snack program, fresh fruit and vegetable program, national lunch, farm to school, no kid hungry NC, summer feeding, asthma fair, and sickle cell programming.

15. Does your school partner with any postsecondary institutions, businesses, nonprofit organizations, or community groups to support student health and/or safety? Yes

If yes, describe these partnerships:



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- The County partners with multiple local for-profit and nonprofit organizations to address student health issues. The list is maintained with the County School's Health Services Department, and the school social worker is responsible for coordination with Health Services and the partners. The school has also partnered with a fraternal organization, Delta Phi Iota, to provide DBHS students with leadership, civic opportunities, community service and overall student health and growth opportunities. They attempt to deal with the whole child, understanding that student health is determined by more than just physical ailments.

16. Does your school have a school nurse and/or a school-based health center? Yes

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

- The county has an anti-bullying campaign that applies to all schools. There are school nurses and counselors available at all schools. Our school also has a dedicated school social worker and a unique peer mentoring class that is active in developing and maintaining peer tutoring and mentoring across all grade levels.
- The social worker maintains multiple programs to assist with school climate issues. She maintains a school clothes closet for those in need and additionally provides prom dresses. She deals with food issues on a case by case basis and she maintains partnerships with relevant mental health programs when they are needed for our youth. We have a PBIS team that focuses on school pride and positive behavior. PBIS maintains a school store where students earn points and can use them for purchases of simple items. We have a high school level sorority and fraternity that also focuses on leadership, positive behavior and community service.

Pillar 3: Effective Environmental and Sustainability Education

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

Our school has an environmental or sustainability literacy requirement.

- Our county requires environmental education through our earth sciences and biology programs. There are specific state standards that must be met, and they are tested standards. The school does offer a Green Technology program for students who apply and meet the appropriate standards. The four-year program is offered concurrently with the usual education pathway and provides course work on sustainability and renewable energy. Students will finish with the ability to achieve a certification in solar panel installation and drone certification (because of its use in utility inspections). They will also participate in a variety of "green" activities and competitions.

Environmental and sustainability concepts are integrated throughout the curriculum.



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- These are required in earth science and biology, AP Environmental and AP Biology courses and throughout the Academy of Green Technology (AoGT) coursework. All AoGT coursework has standards that cover renewable energy, residential and business conservation principles, climate change, planet stewardship (air, water, soil, waste, etc.).

Environmental and sustainability concepts are integrated into assessments.

- Only into Earth Sciences, Biology's and Academy of Green Technology Assessment

Students evidence high levels of proficiency in these assessments.

- Academy of Green Technology students show high levels of proficiency. And virtually all students are deemed proficient by state guidelines. Several students receive county awards each year for their levels of achievement in CTE, and the current teacher of sustainability course work receives the county golden apple award each year for her 100% proficiency levels in her class assessment.
- Earth Science and Biology tested subjects are only average or slightly below state standards overall. We are unable to assess specific standards related to environmental and sustainability concepts at this time.

Professional development in environmental and sustainability education is provided to all teachers.

- Professional development in environmental and sustainability education is offered to all teachers. Many opportunities are offered throughout the school year through our county-wide green schools initiative.

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

Percentage of last year's eligible graduates who completed the AP Environmental Science course during their high school career:

- 0%. Only 2 AP courses are offered at our school due to numbers issues. Students wishing to take AP courses take them through our online high school or a video class. Lack of home computers are an issue for our student body so participation in AP courses online is limited.

Percentage scoring a 3 or higher: NA

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

The Academy of Green Technology (AoGT) is a four year program on the environment, sustainability, and STEM. Enrolled students progress through sustainability programming and use their knowledge to teach others and/or participate in competitions. Students also participate on extracurricular teams as follows:

- **RC car** competes in the NCSU Sustainable Transportation Education competition. Cars are built to race using a uniquely designed solar charging station.



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- **Sun Stewards** uses a mobile solar 'home' teaching younger student's renewable energy and conservation. They participate at the County Earth Day Fair for 2nd graders.
- **Carbon Bank** - manages Go Green Initiative carbon bank project. Students started a separate CO₂ sequestration research project.
- **Weather Balloon**- STEM outreach, with has strong ties to climate change and solar energy. Younger students provide experiments for a high-altitude balloon launch by our students to learn about STEM and the environment.
- **Communities in Bloom** –This Greenhouse project objectives provide the local community with information on gardening practices, planting gardens, and cooking healthy. AoGT students work with the Culinary Arts program (in year one of a three-year Project).
- **Green Team**- Youth Advisory Board that works with the adult green team promoting recycling, conservation, and environmental education at school.

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

- This is largely accomplished through the Academy of Green Technology, but Communities in Bloom is new and small numbers of the student body at large participate as do Culinary Arts students. AoGT students are ultimately focused on solar technologies, but they learn about wind, fuel cell and drone technologies as well as numerous environmental programs. A guest speaker series is provided to students from a wide range of careers related to green technology and sustainability. Students are also offered field trips and limited job shadowing opportunities and internships. The Academy maintains a strong partnership with the local utility company, the regional environmental nonprofit Sustainable Sandhills, NC Forestry Service, City of Fayetteville Storm Water program, and Parks and Recreation.
- All of our student are eligible to participate in the high school connections career pathway called Electrical Systems Technology which teaches students solar panel installation. A Career Fair is held each year where green energy is one of the highlighted fields.

5. Describe students' civic/community engagement projects integrating environment and sustainability topics.

- Sun Stewards mobile solar trailer takes AoGT students to other schools to teach them about renewable energy and conservation. They provide a 45min program that include hands-on projects for the youth they are teaching.
- Communities in Bloom is a developing program that will include volunteers' school wide to both grow food in the greenhouse and provide programming and materials for our local community learning from horticulture resources about sustainable gardening practices. Students will eventually teach the surrounding community about gardens either in containers or yards for a food garden of their own.



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- Students participate in the community E-waste drive and volunteer to serve at the Sustainable Sandhills Clean Energy Summit. They even helped decorate a float for GGI in the annual Christmas Parade and participated in singing Green Christmas carols.
- Students also volunteer to manage the county carbon banking project.
- A fraternity organization, Delta Phi Iota participated in community and school projects supported by the AoGT.

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

- **Freshman year** earth science/working toward sustainability classes participate in water quality testing, Earth Day Celebration.
- **Sophomore year** Sustainable Conservation participates in air quality testing, more water quality testing, Earth Day Fair, CO₂ Sequestration project, Sun Stewards Outreach, Community Clean-up Day.
- **Junior year**- Carbon Bank Project, CO₂ Sequestration project, Earth Day, Solar panel research, Weather Balloon outreach, Community Clean-up Day, E-Waste Drive, Sun Stewards Outreach.
- **Senior year**- Carbon Bank Project, CO₂ Sequestration project, Earth Day, Solar panel research, Weather Balloon Outreach, Community Clean-up Day, E-Waste Drive, Sun Stewards Outreach.
- Our Greenhouse and Outdoor center is being created now and will significantly impact outdoor learning experiences for all grade levels.

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

Earth, Biological, and Sociological Sciences as well as ROTC engage students to provide outdoor learning related to air and water quality issues. The Carbon Banking project teaches environmental science concepts, but particularly field research. Chemistry uses Climate Change as a central theme and the Alliance for Climate Education visits and makes school-wide presentations. The Green Team and Communities in Bloom are in year one of a school-wide environmental education initiative.

In the weather balloon program our students serve as mission control specialists, and help students learn the process of STEM. There is always a weather component to the project, but also potentially a number of other environmental outcomes depending on the experiments developed for the launch. Each launch day is a local community event with students, parents, local school administrators, and sometimes the local media. Students must engage with all of these individuals in their role as mission control specialists.

Similar experiences occur with Sun Stewards Outreach, our mobile solar trailer we use for energy presentations. The greatest involvement and the catalyst for civic engagement in the environment come as a result of the AoGT program, but that is expanding school wide now.

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



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The Academy maintains an advisory board of local businesses that meet three times per year to plan future educational goals related to sustainability and renewable energy. Our largest partnership is with the Cumberland County Green Schools Initiative. They provide community service as well as environmental education opportunities. It is through Green Schools that students participate in the Carbon Banking project, e-waste drives and a student-led research project when the school received new LED lighting.

Fayetteville Public Works Commission, (PWC) is our local utility who provide financial support, field trips and educational opportunities for students. They speak to our students routinely on interviewing and energy jobs, provide internships, and promote solar energy with our students.

Sustainable Sandhills provides students with education and service opportunities, like volunteer hours at the local Energy Summit. They are also partnering on a movie documentary to be provided to the community for free.

We have smaller partnerships which provide service opportunities and educational materials from groups like Fayetteville Storm Water, the local Botanical Gardens, and Parks and Recreation. We further partner with local businesses and nonprofits like the Grange Society, Cumberland County Solid Waste, Cumberland County Environmental Services, and the City of Fayetteville Planning Department.

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

The Academy of Green Technology provides the most unique and effective way that the school is able to integrate green principles. The program was the first of its kind in the state and has been highly innovative. This has also expanded to involving the middle school next door with Green technology curriculum beginning in the 7th grade. Currently our new Airborne Innovations (Drone) class has caught the attention of the Department of Public Instruction and is being replicated at the state level.

Students plan and lead our outreach programs with their own youth advisory board. Our program of environmental sustainability and awareness is put to use in the community in the solar program outreach (Sun Stewards), the new Communities in Bloom gardening outreach, and the STEM related Weather Balloon outreach.

Recycling and energy conservation are mandatory through state law and board policy. The Green Team plans environmental education programs for the school and recycling initiatives. There are plans for environmental programs focusing student awareness on the importance of sustainability. All our students recycle in each classroom then it is picked up at least twice a week. Light switch tags and small signs help remind everyone to turn off lights and electronics when not in use.