

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.
- There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of 6. 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.
- 8. The school or its district has in place and is willing to provide a link to or a copy of a non-discrimination policy, upon request. The U.S. Department of Education reserves the right to disqualify a nomination and/or rescind an award if unlawful discrimination is later discovered.

U.S. Department of Education Green Ribbon Schools

Name of Principal: Mr. Robert Middleton

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

Official School Name: Caddo Parish Magnet High School (As it should appear on an award)

*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.

LIV/Ve	Date: 2/24/22
Principal's Signature)	

(Principal's Ю

Name of/Superintendent: Dr. T. Lamar Goree

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



District Name: Caddo Parish Schools

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

Date:

FEB 2 4 2022

(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:	Louisiana Department of Educati	on
Name of Nominating Authority:	Michelle Lewis	
I have reviewed the information ir provisions above.	Specify: Ms., Miss, Mrs., Dr., Mr., On this application and certify to the b	Other) est of my knowledge that the school meets the
Michelle Lirette	Date:	2/28/2022
(Nominating Authority's Signatur	e)	

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: December 31, 2023

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.



Louisiana Green Schools Application for Green Ribbon Schools

Nominee Contact Information

School, District, or Postsecondary Institution Name: Caddo Parish Magnet High School Category of Nomination (Early Learning Center, School, District, or Postsecondary): School Address: 1601 Viking Drive City: Shreveport State: La Zip: 71101 Facebook:<u>https://www.facebook.com/caddomagnethighschool/</u>

Top official (School=Principal; District=Superintendent; IHE= President): Title (Mr./Ms./Mrs./ Dr.): Mr. First Name: Robert Last Name: Middleton Position/Role (Principal/ Superintendent/ President): Principal Email: rmiddleton@caddoschools.org Phone: 318-221-2501

Lead Applicant (if different) Title (Mr./Ms./Mrs./ Dr.): Mrs. First Name: Dionne Last Name: Procell-Brown Position/Role (Teacher/ Sustainability Director/ Facilities Director): Teacher Email: dmprocell@caddoschools.org Phone: 318-221-2501

School Information

Check all that apply: Early Learning Elementary

Elementary Middle High X Public

Charter 🗌
Magnet X
Non-Public \Box
Two-Year 🗌
Four-Year 🗌

Community College Career and Technical Urban X Rural Suburban

Provide percentages, if any are relevant to your school, district, or institution:

Pell Recipients: 0% Free and Reduced Price Lunch: 16% Minority: 37% Limited English Proficient:

Special Education: Graduation Rate: < 85% Attendance Rate:

Provide the following:

Total Enrolled: 1,026 Number of Schools: 1 Buildings: 13 Campuses: 1



Part II: Summary Narrative

<u>Caddo Parish Magnet High School</u> is an AdvancED-accredited 9-12 grade public, urban, college-preparatory high school that offers a multi-faceted curriculum in academics and the performing arts. Caddo Magnet diligently strives to embody its mission statement through encouraging lifelong learning, excellence in education, and providing a nurturing, safe environment for a diverse and talented student body. These efforts have led to an almost 40-year history of successful college and career preparation. Students consistently demonstrate superior leadership capabilities, evidenced by academics, community service, stewardship, and numerous honors and awards received.

Progressive leadership, attention to data, faculty commitment to ongoing professional growth, and student-led activities have resulted in a consistently high-performing, comprehensive educational program. Caddo Magnet's commitment to excellence has solidified the school's national standing as a two-time National Blue Ribbon School recipient from the U.S. Department of Education. Caddo Magnet ranked 7th on the Louisiana College Readiness Index and 833 nationally. Students graduate with a robust education that includes a deep understanding of life, physical, and earth sciences through integrated environmental education that incorporates both content and practice. This is evidenced by over twenty-two students in the last five years earning perfect ACT scores; thirteen students qualifying as 2021 National Merit Scholarship Program semifinalists, and two seniors receiving the prestigious 2022 Regeneron STS Scholars award by the Society for Science.

Caddo Magnet's <u>school campus</u> celebrates not only academic but also cultural and social development. With five levels of drama; art classes ranging from pottery to studio art; fencing, gymnastics, and JROTC; five foreign languages; vocal and instrumental music; and more than 14 science and math courses, including forensics and robotics, Caddo Magnet offers a rigorous and diverse program across all required core courses, twenty-eight AP college-level courses, and elective class offerings that challenge every student to meet their highest potential. Students develop civic knowledge and skills through extensive community service and engagement projects.

At Caddo Magnet, students are encouraged to not only acquire knowledge but to "share what they know, what they have, and who they are with others." This mantra is reflected most prominently through the <u>Greens Club</u>, a national <u>Project Green Schools</u> society member. Among the <u>forty-two club</u> offerings at Caddo, the Greens' Club spearheads environmental service and stewardship and spurs students to impact their world both locally and globally. Through student and staff efforts, Caddo Magnet has earned the distinction of becoming a <u>National Wildlife Federation's Certified Schoolyard</u> <u>Habitat</u>. Students encourage their peers to complete ecological projects, campus composting, community clean-up days, and community mentoring to advance environmental awareness and agency. Through these efforts, students are genuinely making impactful green strides. A shining example of the



empowering influence that students are encouraged to pursue is the student-initiated "Be the Change" Environmental Program, founded by Caddo's <u>Diva Desai</u> and funded through a <u>Jane Goodall foundation</u> grant. The movement launched a statewide billboard campaign to raise awareness about plastic bag pollution. Another example of students taking a first-hand role in raising environmental awareness and action is Caddo Magnet's student publications like the "<u>Utopia</u>" magazine and the <u>Greens' Club monthly</u> <u>blog</u>. Student voices are amplified as they promote a strong sense of belonging and encourage one another to actively address sustainability and environmental issues in their community through topics ranging from <u>recycling</u> to the <u>impacts of fast fashion</u>.

Through various campus clubs and extracurricular activities, Caddo Magnet students are encouraged to collaborate with local, state, and national organizations to advance their research skills and innovative scientific thinking to solve real-world problems creatively. Students explore STEM skills through clubs that offer a combination of mechanics, electronics, problem-solving, and programming. The Drones Club is open to beginner students interested in building knowledge and STEM-related skills. The Rocketry, Robotics, and Cyber Patriots clubs hold top place awards at state, regional and national levels. Students have opportunities to showcase their knowledge and interact with students from across the state and nation through competitions like the Science Bowl and Science Olympiad. Students present and promote sustainable practices at the Louisiana Junior Science and Humanities Symposium, sponsored by the United States Departments of the Army, Navy, and Air Force, in cooperation with Louisiana universities. In 2022, three Caddo Magnet students placed in the highest-ranking positions. Through partnerships with organizations like the Louisiana Water Environment Association, Caddo Magnet students identify research and present ways to solve water problems in new and innovative ways. Each year, Caddo Magnet students engage in Envirothon, a Department of Environmental Quality sponsored event in partnership with the Louisiana Department of Agriculture and Forestry, Wildlife and Fisheries, the Louisiana Environmental Education Commission, alongside Louisiana universities and research programs to demonstrate their knowledge of environmental science and natural resource management. The competition focuses on five natural resource areas: soils and land use, aquatic resources, forestry, wildlife, and a current environmental issue. In 2022, Caddo Magnet students placed overall by championing "Waste to Resources" points through alternative energy production and carbon storage methods to conserve resources and build models of sustainable cities. The Caddo Magnet High Greens Club is one of 200 statewide members of the Department of Environmental Quality Louisiana **Environmental Leadership Program.**

With a solid commitment to community resilience and sustainable practices, Caddo Magnet students take full advantage of their outdoor learning labs and recreational spaces. Geographically well positioned near the banks of the Red River, Caddo Magnet provides students a myriad of interdisciplinary, real-life learning experiences to explore north Louisiana's social, geographical, historical, cultural, and ecological points of reference. Caddo Magnet encompasses over 26 acres and adjoins the <u>Shreveport Parks and Recreation</u> (SPAR)'s, <u>Valencia Community Center, Park, and Garden</u>.



Also, Caddo Magnet is within walking proximity to the <u>Coates Bluff Nature Trail</u>, which winds along the banks of a historical river system as well as Anderson Bayou South. Caddo students directly connect with nature to advance community health, nutrition, and fitness. Students in Track, Cross Country, JROTC, and Soccer utilize the <u>Coates Bluff Nature Trail</u> and the nearby <u>Red River National Wildlife trail system</u>. Students in the Greens Club, Black Studies Association, and Interact Club help grow and harvest fruits and vegetables in the <u>Valencia garden</u> for the cafeteria and adjacent neighboring communities. Nearby outdoor spaces promote multi-disciplinary learning opportunities as students explore a former trading post, a steamboat port, an abandoned "tire stadium," and an African American cemetery. Students develop skills to address sustainability and environmental issues in their community by utilizing civic engagement tools like the "<u>Break Free from Plastic</u>" <u>GreenPeace</u>, citizen science toolkit. Caddo students conduct bi-annual cleanups to <u>pick up trash</u> along the trail, sort it, and document the amounts of plastic waste. Students use this evidence to advocate for corporations to seek more sustainable packaging methods and materials.

Students educate and encourage healthy eating and sustainable living choices through community events alongside multiple organizations. Caddo Magnet is located less than one block from the Louisiana State University Agricultural Center, and <u>We Grow Together</u>! Campus and <u>Community Health Hub</u>. This outdoor space includes a community garden and an outdoor learning area. Students actively <u>mentor children</u> from across the parish about local litter-free benefits in conjunction with nonprofit organizations like <u>Shreveport Green</u> and support feeder schools in their efforts to create sustainable gardening. Creative art students inspire community maintenance and preservation of vibrant and clean community spaces through initiatives like the <u>Valencia Park</u> basketball mural, which over 100 students painted. Students leverage international mentorship opportunities with organizations like <u>Unicef</u> to employ and empower localized civic action and agency. In 2022, students collaborated <u>across</u> <u>Caddo Magnet clubs</u> and regional organizations to support the United Nations Sustainable Development Goal #2: Zero Hunger, to creatively raise awareness, and proceeds to provide 1,588 meals for the <u>Northwest Foodbank</u>.

Caddo Magnet serves as an exemplary national model of cultivating school and community partnerships to strengthen long-term resiliency, stability, growth, and thrivance grounded in service and stewardship. Through multiple access points, Caddo Magnet staff promote adaptive, place, and project-based connections that afford students strong foundations and deep understanding of systems thinking and its relation to the human and natural world around them. Students and staff are empowered to strive towards 21st-century excellence locally and globally by reducing environmental impact and costs, improving health and wellness, and engaging in high-quality environmental education. This enhances student engagement, academic achievement, increased graduation rates, and future workforce preparedness.



Part III: Documentation of State Evaluation of Nominee

PILLAR I: REDUCE ENVIRONMENTAL IMPACT AND COSTS

Element 1A: Energy Conservation

Caddo Magnet stewards over 26 acres of land and spreads across thirteen buildings. This positions and provides staff and students a unique opportunity and responsibility to make both the buildings and grounds more efficient and sustainable. The <u>original campus</u> buildings (89,278 sq. ft.) were built in 1964. While energy efficiency **retrofitting** is ongoing in older buildings, the school system has actively sought to make systematic green building strides within the past few years. In 2018, flat roofs using Polyiso insulation boards and water-resistant membranes were replaced with more energy-efficient models and HVAC rooftop systems. Additional buildings, like the JROTC and Performing Arts Center buildings and classrooms, along with a separate two-story classroom wing, each around 30,000 sq. ft., were constructed in 1989 and 2007, respectively, as well as a stormwater retention basin. This replaced rows of outdated, inefficient, and unhealthy portable buildings and helped offset increased surface runoff.

Caddo Magnet participates in <u>Cenergistic's</u> energy savings plan. All classrooms and offices have energy-efficient thermostats that are preset to maximize energy savings and reduce energy usage. During all extended school holidays and during the summer, each classroom and office must perform and post a completed energy conservation checklist, turning off electrical appliances, computers, and thermostat adjustment. By implementing these changes from 2017-to 2020, the district reduced estimated per-student annual energy costs from \$210 to \$202. Ongoing efforts are being made district-wide to audit, plan, and conserve energy for current and future impacts.

As part of the "<u>Re-Imagine Caddo: The Plan for Excellence</u>," the district adopted an **annual goal** of reducing energy costs by ten percent. Caddo Magnet staff and administrative leadership team developed a **phased project plan** to partner with local electric management, Southwestern Electric Power Company, or SWEPCO, as well as alternative energy companies, to **install solar panels as well as E-charge ports** in the student parking lot. Students take a prime role in engaging in the school's energy conservation efforts through programs and activities in Advanced Placement Environmental Science and Greens Club. Students research the scope and scale of costs, constraints, and community impact of potential methods for alternative energy implementation. Students iterate upon the efficiency of installation and maintenance models.



Element 1B: Improved Water Quality, Efficiency, and Conservation

The campus rests on top of a 100-year old stormwater drainage system, whose components are visible throughout the campus. These drains have offered a unique opportunity for students and staff to learn about **litter, watersheds, and stormwater management.** The Caddo Magnet Greens Club has worked with community organizations like <u>Sci-Port: Louisiana's Science Center</u>, the City of Shreveport Stormwater Waste Division, SPAR's Valencia Center, and <u>Montessori School for Shreveport</u>, to label several of the storm drains both in the interior of the campus, but also along the streets and sidewalks in the adjacent neighborhood, Stoner Hill. The **storm drain markers** poignantly educate and remind staff and students not to use drains for dumping to prevent litter from entering them. To further address campus drainage issues, students in the Green club engage in projects that explore methods to redirect the flow of rainwater away from building foundations. One student-led project included trench digging, backfilling with **porous gravel material**, and connecting these systems to existing storm drainage efforts. Another project involved staff and students strategically planting water-loving plants, such as elephant ears, along the foundation of two older buildings to help **naturally mitigate water retention**.

Caddo Magnet's faculty and student families actively model environmental sustainability stewardship through service. Green club sponsor, Mrs. Procell-Brown, alongside fellow teachers and staff, Robert Trudeau, Ken Lerchie, Michael Ilgenfritz, Trey Jackson, Jennifer Jackson, Karin Goebel, Robert Middleton, with the support of the Parent Teacher Student Association, invest their time landscaping the campus. Students are educated, encouraged, and empowered to participate in environmental stewardship through the meaningful beautification of the campus grounds. Caddo Magnet's school landscaping committee seeks place-based sustainable solutions by planting pollinator-friendly, water-wise native plants. Staff and students recruited a Caddo Magnet alumni and landscaping architect to redesign the central courtyard area, partnered with Louisiana State University Ag Center to secure in-kind donations and built the new raised flower beds. Students completed the work in two phases. The first stage involved removing old concrete sidewalk blocks and removing overgrown pampas grass. Students observed trends in soil composition, land distribution, and blooming cycles of a garden bed spelled in the letters "C" and "M." Students revitalized the area using eco-friendly methods. The soil was amended as necessary, and new beds were built in front of the A-wing building. Shrubs were planted and mulched, and grass seed was spread in the barren areas of the lawn. The project's second stage involved the courtyard between A- and C-wings. Old and broken concrete border edging was removed, and large landscape blocks were installed around the four trees located in this area. Additional soil was brought in to fill new tree rings. Careful attention was taken to replant plants moved during this process. The school landscaping committee made several water-conscious improvements through installing and repairing sprinkler heads and soaker hoses in the courtyard beds set to water conservation timers. Construction efforts are currently underway to replace outdated



irrigation systems to minimize water waste and ensure that local wildlife-friendly garden beds receive adequate water throughout the year. Detailed considerations were given to account for physical elements like soil, topography, water sources, **drainage patterns**, sun and wind exposure, ecological components like plants, insects, and animals; human influences such as buildings, sidewalks, utility right-of-ways, and asphalt areas, and boundary conditions. This earned Caddo Magnet the distinction of becoming a <u>National Wildlife Federation's Certified Schoolyard Habitat</u>.

Caddo Magnet students actively take a role in improving **campus water conservation** efforts. In 2020, Senior Class representatives collected club funds to purchase and install three Elkay water bottle filling stations. Each station offers filtered water and has metered displays that promote reusable water bottles. Several campus clubs host fundraisers by selling reusable water bottles to facilitate sustainable water conservation practices. The Greens Club donated the proceeds of their water bottle fundraiser to "Friends of the Coates Bluff Nature Trail" to assist in procuring materials to improve low-lying boardwalks and strengthen the structural stability of the trail's bridge and pier.

To further improve student **water quality knowledge and advocacy** within a local context, Caddo Magnet's Greens Club partnered with the Environmental Protection Agency naturalist educator from <u>Caddo Parks' Walter B. Jacobs Memorial Nature Park</u> to conduct water quality monitoring tests and macroinvertebrate sampling from the Anderson Bayou.

Element 1C: Reduced Waste Production

Since 2014, Greens Club, under the direction of Mrs. Procell-Brown, has received a grant from International Paper's Mansfield, Louisiana, plant to implement the "Magnet Goes Green" recycling program. Students are encouraged to showcase artistic talent, beautify and educate the campus, and promote recycling among their peers through this grant initiative. This program includes purchasing 20 large metal recycling bins, 20 particular mixed recyclables bin toppers, and classroom bins. Clubs and elective classes each "adopt" a container, create a design, advance awareness and take action. Once a week, students empty the mixed recycling bins, while outside vendors empty larger bins. As a combined result of the pandemic alongside changes in the recycling commodities industry and the discontinuation of former vendor, Pratt and Hughes Recycling pickups, Magnet's Greens Club had to work hard to find ways to continue diverting a lot of the school's waste from the area landfills. Through student-led research, students identified a new partner, a local vendor, RenewWaste. Caddo Magnet Greens Club and Video Journalism students, under the direction of Mrs. Trudeau, documented highlights from an informative trip to the Woolworth Landfill. The mini-documentary provided staff, students, and families with ways the recycling program would expand from recycling cardboard and paper to plastic and aluminum. Inspired by fellow Caddo Parish public school Montessori for Shreveport's waste management program, all trash cans were labeled "LANDFILL" to assist students in recognizing the scale of individual waste and the power of recycling. Staff and students enhance waste reduction efforts



through **composting** items such as shredded school-used paper. To support these efforts, student landscaping committee members built wire composting bins. The school principal, Robert Middleton, picks up coffee grounds from the local Rhino Coffee Shop, owned by a Magnet High graduate. Greens Club volunteers mix brown material with shredded paper and coffee grounds.

Element 1D: Alternative Transportation

Caddo Parish Bus <u>Transportation policy</u> permits students living one mile or less from their respective school to choose an alternative method of transportation unless otherwise authorized by the Director of Transportation or his designee.

PILLAR II: IMPROVE THE HEALTH AND WELLNESS OF STUDENTS AND STAFF

Element 2A: Integrated School Environmental Health Program

Caddo Parish School District has an integrated school environmental health program and policy based on school board accepted operations and facility-wide environmental management systems that consider student and staff health and safety in all practices related to design, construction, renovation, operations, and maintenance of schools and grounds. As applicable, school site-building inspections may result in EPA-advised_asbestos removal, replacement of water-damaged ceiling panels, regular maintenance of classroom air filters to monitor indoor air quality, control mold and moisture, and maintain acceptable temperature and relative humidity; etc.

Caddo Magnet utilizes an **integrated pest management** approach to controlling pests, considering pest biology, behavior, and environmental context, alongside scientifically based removal tactics. An example of this in practice is in 2021, Caddo Magnet sought the assistance of a local beekeeper to remove an active beehive safely. School maintenance regularly posts and notifies staff of pesticide applications, as well as specified re-entry periods before and after permittance into treatment areas. Student clubs, like the Greens club and the Landscaping committee, adhere to the school's integrated environmental health plan by limiting pesticide and synthetic fertilizer in campus and community gardens to those with the least toxic, less persistence, as possible, to minimize risk to pollinator populations.

Care and consideration are taken in school bus route planning to shorten commute times for students. Bus drivers are encouraged to turn off engines quickly after arriving at loading or unloading areas and not restart until they are ready to depart. This is part of a strategic district-wide effort to **reduce harmful diesel exhaust air emissions** from idling school vehicles that can potentially enter school buildings through air intakes and doors.

In consideration of the Center for Disease Control and Prevention <u>guidance</u> on reducing the spread of Covid-19, Caddo Magnet staff employ various ways to **increase ventilation**. High-quality air



purifiers, opening windows, and utilization of outdoor learning spaces, are strongly encouraged. Caddo Magnet has two designated courtyard areas and additional **outdoor classrooms** that provide alternative seating options.

Element 2B: Nutrition and Fitness

Caddo Magnet holds high standards of nutrition, fitness, and quantity and quality outdoor time for both staff and students. Health and physical education teachers are encouraged to use appropriate practices and evidence-based curriculum models to provide students with a comprehensive physical education program that promotes enjoyment, confidence, and competence. Grounded in the Louisiana State Student Standards for Health and Physical Education, students build knowledge and skills through fitness games and sports, lifetime activity pursuits, individual and community health, safety and etiquette, as well as social responsibility. Students may choose to enroll in JROTC as an alternative fitness program. The Mission of JROTC is to develop young people to be better citizens. The CMHS JROTC Mustang Battalion was created in 1982. It has provided character and leadership education to thousands of students. JROTC is open to all students regardless of grade level, and there is no military obligation for participation. JROTC cadets can participate in the academic team, color guard, orienteering, rifle, raiders, and drill teams. The Color Guard has placed among the top in the nation. To receive a TOPS University Scholarship, all Louisiana students are required to take at least one unit of physical education I or Junior Reserve Officer Training Corps, JROTC; a half-unit from either Physical Education II, JROTC, Marching Band, extracurricular sports; and a half-unit from Health Education or JROTC. Caddo Parish Magnet High School uniquely offers a wide range of fitness opportunities that students can choose to participate in through either physical education and/or after school athletics: Archery, Cross Country, Fencing, Golf, Gymnastics, JROTC, Lacrosse, Soccer – Ladies, Soccer – Men's, Softball, Swimming, Tennis, Track, Volleyball, Wrestling. On average, around 45% of Caddo Magnet students participate in an athletic sports program.

Under the guidance of the Caddo Parish Schools District <u>Wellness Policy</u> and <u>Child Nutrition</u> <u>Program</u>, Caddo Magnet provides opportunities for all students to practice healthy eating and physical behaviors. Students have access to **healthy food** through reimbursable school meals per federal and state nutrition standards. Students receive quality nutrition education that helps them develop lifelong healthy eating behaviors and have opportunities to be physically active before, during, and after school. As part of district nutrition standards, all food and beverage marketing on campus, including vending machines, must have healthy, low sugar alternatives.

Through various clubs and athletics, Caddo students directly connect with nature to advance **community health**, nutrition, and fitness. Students in Track, Cross Country, JROTC, and Soccer utilize the <u>Coates Bluff Nature Trail</u> and the nearby <u>Red River National Wildlife trail system</u>. Students in the Greens Club, Black Studies Association, and Interact Club help grow and harvest fruits and vegetables in the <u>Valencia garden</u> for the cafeteria and adjacent neighboring communities.



Element IIB (cont.): Coordinated School Health, Mental Health, School Climate, and Safety Diverse and Dynamic Support Services: Educational, Physical, and Social-Emotional

Caddo Magnet integrates **wellness activities** across the entire school setting to promote student well-being, optimal development, and strong educational outcomes. Staff is encouraged to coordinate content across curricular areas to promote student health. Caddo Magnet adheres to the Caddo Parish Schools' <u>district</u> policies on bullying prevention, youth suicide prevention, positive behavior intervention and support, crisis response, and drug prevention to serve students' mental health, wellness, and safety needs.

Caddo Magnet provides on-staff counseling and career advisory for each grade level. Counselors work hard to improve their availability to students and staff and their rapport with students. Counselors deliver classroom lessons to go over Student Handbooks to share pertinent academic and college/career readiness information. Counselors also speak at grade-level Parent Nights to share information on open-door policies, self-referrals, parent referrals, referring a friend to the counseling office, and their emphasis on open communication. Counselors have Canvas accounts with individual websites that house resources and updates. Each counselor's site (9th and 10th Grade, 11th Grade, and 12th Grade) must have a list of community mental health providers for use when making a referral to an outside provider. They also provide additional coping skills, crisis support, and after-hours care. Students are encouraged to take full advantage of counseling services, resources, and distance learning supports, including social and emotional development, tutoring, community connections, and online support platforms. Caddo Magnet utilizes the "Lightspeed Systems" program to track school-owned devices and alert counselors when "high risk" keywords or phrases are entered into an assignment or search engine. This includes words such as suicide, kill, murder, die, etc. When a Lightspeed notification is received, a certified school counselor assesses the appropriate level of risk and takes pre-cautionary next steps. Crisis hotline flyers and counselor contact flyers are posted throughout campus, including bathrooms and classrooms.

To remove stigmas associated with mental health and to advance nature-**well-being supports**, Caddo Magnet has a long tradition of hosting <u>"stress relief" picnics</u> every semester during the school day. On picnic days, clubs set up booths and sell foods and beverages. Activities can include the E-Sports club hosting video game tournaments, talented students showcasing their music skills through karaoke, and giant inflatable obstacle courses filling the courtyard. During the 2022 Fall Picnic, the Engineering Club built a haunted house, art students drew henna tattoos on students and teachers, pottery students sold personally created pottery, and students and staff had the opportunity to adopt and take home plants or <u>shelter pets</u>.

Caddo Magnet High School offers several **extracurricular options** that promote whole-child health and community involvement. Caddo Magnet prides itself in being a welcoming, inclusive place where every student can find an organization that interests and encourages them to connect, serve, and steward local community resources. Clubs can range from offerings like "Active Minds," which focuses on mental health awareness and well-being through experiences like courtyard yoga, to clubs like "In



Stitches," where students and staff can relax and knit after school in a science lab. Each club must offer **community service** components and do so in a meaningful way to their mission and core values. For example, the <u>Asian Studies Association</u> regularly serves environmental stewardship initiatives such as landscaping the Asian Gardens at Common Street and Milam Street. For a complete list of organizational offerings at Caddo Magnet High, ranging from academics, athletics, honors, service, a particular interest, performing arts, military service, religious groups, STEM, and cultural clubs and affiliations, scan the bar code below.



Student organizations strategically partner with area non-profits, and service opportunities are frequently shared via bulletin boards, school announcements, and school-based social media accounts. Over 15% of Caddo Magnet graduates perform above and beyond the 80 hours of service required for the Louisiana Department of Education Service Endorsement on their diplomas. A commendable example is Caddo's Interact Club. With over 200 members, Interact volunteers have cleaned up hundreds of pounds of litter within Shreveport's Hollywood area, cultivated and harvested over 400 pounds of fresh produce for impoverished elementary students, devoted hours to the Juvenile Court's pretrial diversion programs, and so much more. Interact donation drives have collected over 200 backpacks for elementary students over 1,000 books for a local library and responded to Louisiana Hurricane Ida victims by providing essential items.

Caddo student Autumn Sommers best articulated the impact and importance of <u>service</u> and stewardship by stating,

"Volunteering with <u>Interact Club</u>, Shreveport ReForm, and Shreveport Volunteers Network was truthfully one of the most fulfilling, humbling experiences of my high school career. When you see the real changes you can make in your community, you realize that this is much bigger than getting community service hours. It's not just about earning the State Seal, it's about helping those that the government neglects. This is real change- and it genuinely fulfills me."



Educational

Caddo Magnet leverages outdoor spaces, creative arts expression, and travel performance excursions to **enhance and expand environmental education** for its student populace. Caddo Magnet strives to promote meaningful outdoor experiences and connections to nature throughout the content, curricula, and clubs.

Students can earn college credit and express their unique perspectives while progressing through unique offerings, including a wide range of art and music classes. Students explore their creativity and imagination through various <u>art classes</u>, including an on-site <u>pottery lab</u>. The <u>Orchestra</u> consistently ranks in the top place in state competitions. Students can take <u>piano</u> and <u>choir</u>, vocal band, symphonic band, or jazz band. These bands frequently perform at community and state events. The drama department encourages students to hone emotional expression through acting skills. Caddo Magnet offers an <u>entire class</u> and club dedicated to tech theater where students learn to build sets and operate lights and sound. The <u>International Thespians club</u> has traveled three times to Edinburgh, Scotland, to perform at the International French Festival. Educational offerings like these instill confidence, empathy, and compassion to build better communities.

Caddo Magnet celebrates **student engagement and agency-leading** educational service and stewardship initiatives. For example, in 2018, Caddo Magnet's Greens Club student president was invited to speak at the Green Schools Expo in NYC during ClimateWeek partnership with the Project Green Schools Alliance. After learning from other eco-minded students from around the country, climate scientists at the American Museum of Natural History, and activists from Project Drawdown, she shared insight and knowledge gained with fellow Greens Club members. As a result, the Greens club became dedicated to educating students across the campus and the community about the United Nations' Sustainable Development Goals. Each September, Greens Club hangs up 244 world flags in the courtyard and partners with the school's UNICEF and Girl Up! chapters to teach and offer fun activities during lunch and after school. They also use unique social media tags during Global Goals week to promote and support the Sustainable Development Goal highlighted.

PILLAR III: ENSURE EFFECTIVE ENVIRONMENTAL AND SUSTAINABILITY EDUCATION

Element 3A: Interdisciplinary Learning about the Key Relationships between Dynamic Environmental, Energy and Human Systems

Caddo Magnet Greens Club students leverage key community relationships to gain knowledge, motivate peers to **environmental stewardship** and advocate for school and community health and viability. Students partner with various organizations, schools, and government agencies (Sci-Port: Louisiana's Science Center, Montessori School for Shreveport, SPAR, Red River Cleanup, Shreveport Green, Stoner Hill, and Anderson Bayou Neighborhood Associations, Keep Louisiana Beautiful), to conduct many campus and neighborhood cleanups.



During **bi-annual cleanups**, students receive place-based lessons to explore the impact of water-shedding on their community through hands-on instruction led by nature trail paver and trash dam builder Jon Soul. The sci-Port staff has brought their watershed model to events like the Coates Bluff Guided Trail Walks and EarthFest. Greens Club, biology, and AP Environmental Science students have constructed portable **watershed models** (provided by Sci-Port and LEEC grant funds) during presentations on campus and within the local community.

Students analyze graphs, interpret statistical data trends, and cross-correlations between geographical distribution, land use, and human/nature interactions and impact. Students are encouraged to observe and explore how trash enters trash dams and impedes their structural design during the cleanups. Students then conclude and learn ways to help protect the Coates Bluff Nature Trail from the litter deposited during heavy rainstorms.

Empowered through learning, Caddo students recognize the need to **share and advance environmental literacy**. In conjunction with Shreveport Green, the Caddo Magnet Greens club presented ways to celebrate Louisiana culture through stewardship methods like recycling. Caddo students shared that while Mardi Gras parades are an important part of our state and local economy, they typically involve a great deal of litter. Elementary students compared **sustainable parade practices** to traditional and more prevalent experiences. Elementary students identified ways that single-use disposable waste can detriment local ecology through various methods: storm drain clogging, waterway polluting, potential wildlife harm, unsafe materials use. Students generated alternative practices with more eco-friendly benefits while still appealing to mass audiences. Inspired by this experience, Greens club officers partnered with JROTC to begin a **bead drive** to collect, sort, wash and reuse discarded Mardi Gras beads along parade routes.

Students in AP Human Geography (9th graders), World Geography (9th graders), AP Environmental Science (11th-12th graders), and AP World History (10th, 12th graders) courses learn about the dynamic connections between people, plants, animals, microbes, and commodities. One of the themes that guide student learning in these courses is **human-environment interaction**. Students evaluate the history and legacy of the Columbian Exchange how certain plants, animals, innovations, and trade networks shaped and continue to shape our world.

Through multiple access points, Caddo Magnet staff promote adaptive, place, and project-based community connections that afford students strong foundations and deep understanding of systems thinking and its relation to the human and natural world around them. The <u>National Wildlife</u> <u>Federation's Certified Schoolyard Habitat</u> is an essential resource for promoting interdisciplinary learning. It houses a <u>Monarch Waystation</u> garden bed that students helped build and maintain. Additional campus gardens include a sizeable butterfly-shaped garden and flower meadow that promote opportunities for learning about native plant species.



Caddo students build local environmental literacy capacity by using place-based educational opportunities, like the gardens, to **mentor** and assist several area elementary and middle schools in creating their own Monarch Waystations. Greens Club also improves the neglected SPAR Valencia garden space and turns one large plot into a butterfly meadow, utilizing a similar design feature as the Caddo Magnet garden. Greens Club students share harvested seeds and cuttings from 2020 school garden milkweed plants to expand the butterfly-friendly areas on campus and donate to partnering schools. To provide year-round nectar and pollen for butterflies and other wildlife friends and provide interdisciplinary, nature-based educational opportunities, Caddo Magnet High has purchased a **greenhouse** funded by Caddo Magnet's <u>Alumni Association</u>. The tech theater department will build and install the greenhouse and plant shelving. The school's landscaping committee, Greens Club members, Environmental Sustainability students, and TAP Vocal students will utilize the greenhouse to grow pollinator-friendly plants on campus and in surrounding area butterfly gardens.

Magnet's Greens Club sponsor works with area educators and Sci-Port to develop **watershed** education workshops. Each workshop participant was awarded watershed rain barrel kits and portable models for their school. Michael Ilgenfritz installed Magnet's rain barrel kit and built a raised bed for AP Environmental Science class to use as an herb bed. In 2022, Greens Club continues to expand sustainable water practices by installing a student-painted rain barrel in a highly prominent location.

Element 3B: Use of the Environment and Sustainability to Develop STEM Content Knowledge and Thinking Skills

Caddo Magnet offers an extensive and robust STEM program and is the only regional North Louisiana school to be recognized by the U.S. News and World Report and ranked in the top 3% of the United States for offerings in STEM. All science level courses (Biology I, Biology II, Chemistry I, Chemistry II, Chemistry II AP, Environmental Science AP, Physical science, Physics Honors, and Physics AP) <u>require</u> students to complete a **STEM project** that explores human and natural world connections. Students promote reducing environmental impact and costs through initiatives such as <u>"20 by 2020,"</u> Students are encouraged to work on their projects in either the campus **Maker Space** or **Engineering Lab**.

Through various campus clubs, Caddo Magnet students are encouraged to collaborate with local, state, and national organizations to advance their research skills and innovative scientific thinking practices to solve real-world problems creatively. Students are encouraged to explore STEM skills through clubs that offer a combination of **mechanics, electronics, problem-solving, and programming**. The <u>Drones</u> Club is open to beginner students interested in building knowledge and STEM-related skills. The <u>Rocketry</u>, <u>Robotics</u>, and <u>Cyber Patriots</u> clubs hold top place awards at state, regional or national levels. Students have opportunities to showcase their knowledge and interact with students from across the state and nation through the competitions like the <u>Science Bowl</u> and <u>Science Olympiad</u>.

Students eagerly connect with local scientists, academic mentors, and various governmental and national organizations to further develop their knowledge and skills to address sustainability and



environmental issues. Resultingly, students consistently place in top spots at the Louisiana State Science and Engineering Fair and globally advance to place in the International Science and Engineering Fair. Students present and promote sustainable practices at the Louisiana Junior Science and Humanities Symposium, sponsored by the United States Departments of the Army, Navy, and Air Force, in cooperation with Louisiana universities. In 2022, three Caddo Magnet students placed in the highest-ranking positions. Through partnerships with organizations like the Louisiana Water Environment Association, Caddo students identify research and present ways to solve water problems in new and innovative ways. For example, Caddo student Elijah Burks was honored in the 2022 Regeneron National Talent Search, the nation's oldest and most prestigious science and math competition for high school seniors, for his research titled "The Effect of Freshwater Acidification on Clams." His study showed that increasing CO₂ harmed freshwater clams. The mass of the clams in the acidic environment decreased, and their respiration increased, which is a sign of stress. With increasing carbon dioxide having a different effect on various organisms and the amount of CO₂ rising in the atmosphere, this research is very relevant. Burks hopes his project will inspire scientists to research freshwater organisms and see how climate conditions impact them. Another Caddo student, Diya Desai, studied "The Efficacy of Graphene Oxide Coated Sand in the Filtration of Major Heavy Metal Contaminants to Solve the Global Water Crisis. " She won first in the state and went on to place at the National level at the U.S. Stockholm Junior Water Prize, as well as the Spellman Clean Tech Competition.

ELEMENT 3C: Civic Skills and Green Career Pathways

Leadership opportunities are available in all aspects of Caddo Magnet. Students are encouraged to display and engage in **civic agency**. Caddo offers several course offerings and opportunities to promote student development and skill-building to help students make connections that will serve them well in academics and the workforce. Caddo Magnet students engage directly with environmental science researchers and leaders through <u>Envirothon</u> each year. This event is a Department of Environmental Quality sponsored event in partnership with the Louisiana Department of Agriculture and Forestry, Wildlife and Fisheries, the Louisiana Environmental Education Commission, and Louisiana university and research programs. Students demonstrate their knowledge of environmental science and natural science resources, forestry, wildlife, and a current environmental issue. In 2022, Caddo Magnet students placed <u>overall in the first two spots</u>, addressing the recent "Waste to Resources" issue by championing alternative energy production and sustainable carbon storage methods to **conserve resources** and **build models of greener cities**. The Caddo Magnet High Greens Club is one of 200 statewide Department of Environmental Quality members of the Louisiana Environmental Leadership Program.

Caddo Magnet prepares graduates to take a first-hand role in advocating for environmental and community health and individual well-being through various clubs and offerings. Through the <u>Mock Trial</u> <u>Club</u>. Students train with area lawyers in an on-campus simulated courtroom space to learn about the court system while developing public speaking skills and ways of engaging in arguments from evidence. Through emphasizing the power of teamwork, students also learn about the power of collective agency



in advancing sustainable practices. Magnet's Mock Trial team has competed in the Regional and State tournaments for the past 27 years. They have won the Regional Mock Trial competition almost every year and have won the Louisiana State Championship seven times, most recently in 2021. Students have also participated in national and international competitions. Another opportunity for Caddo Magnet students to join is the Youth and Government Legislature. Selected students from Magnet wrote and presented four bills to Congress for debate. Two of the four bills passed to the final legislature presentation through the committee and floor debates. With outstanding student success, the governor signed two of the bills. Another way Caddo Magnet empowers students to advocate for environmental health and well-being is through the Girl Up club. Students advocate for improved girls' and womens' issues, both locally and globally. Members petitioned the local school board and were approved for female students to receive free sanitary products across the district. Another avenue for students to learn ways to engage in career-based science practices is through the Science & Medicine Academic Research Training Program. It provides academically advanced high school Caddo Magnet seniors interested in careers related to medicine, scientific research, and biomedical engineering opportunities to engage in intensive research with medical clinicians, researchers, and academic staff. In the Greens Club and Black Studies Association, students learn about the food web system from LSU AgCenter gardeners and nutritionists. Black Studies Association, Greens Club, and Interact Club members learn firsthand about the importance of intergenerational knowledge while working alongside elderly neighbors in the Stoner Hill neighborhood. Spread the Success students know that one of the best ways to start their day is reading to local Stoner Hill, elementary school students.

Photographs:

Photographs may be accessed by <u>clicking this link</u>.