

**ELIGIBILITY CERTIFICATIONS**

**School and District's Certifications**

The signatures of the school principal and district superintendent (or equivalents) on the next page certify that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct to the best of their knowledge. *In no case is a private school required to make any certification with regard to the public school district in which it is located.*

1. The school has some configuration that includes grades early learning to 12.
2. The school has been evaluated and selected from among schools within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
3. Neither the nominated public school nor its public school district is refusing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review. The Department of Defense Education Activity (DoDEA) is not subject to the jurisdiction of OCR. The nominated DoDEA schools, however, are subject to and in compliance with statutory and regulatory requirements to comply with Federal civil rights laws.
4. OCR has not issued a violation letter of findings to the public school district concluding that the nominated public school or the public school district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
5. The U.S. Department of Justice does not have a pending suit alleging that the public school or the public school district as a whole has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
6. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the public school or public school district in question; or if there are such findings, the state or public school district has corrected, or agreed to correct, the findings.
7. The school meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

**U.S. Department of Education Green Ribbon Schools**

Public  Charter  Title I  Magnet  Private  Independent  Rural

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

Official School Name: **Anderson W. Clark Magnet High School**  
(As it should appear on an award)

Official School Name Mailing Address: **4747 New York Avenue, La Crescenta, CA 91214**  
(If address is P.O. Box, also include street address.)

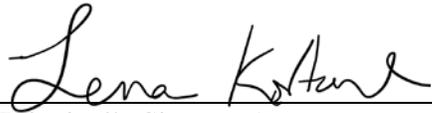
County: **Los Angeles** State School Code Number \*: **19 64568 1996131**

Telephone: **818 248-8324** Fax: **818 957-2954**

Web site/URL: [www.gusd.net/clarkhs](http://www.gusd.net/clarkhs) E-mail: [LKortoshian@gusd.net](mailto:LKortoshian@gusd.net)

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

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

  
\_\_\_\_\_  
(Principal's Signature)

Date: January 30, 2020



Name of Superintendent: **Dr. Vivian Ekchian**

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

District Name: **Glendale Unified School District**

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

Date: January 30, 2020

(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: **California Department of Education**

Name of Nominating Authority: **State Superintendent of Public Instruction Tony Thurmond**

(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

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

Date: February 10, 2020

(Nominating Authority's Signature)

### **SUBMISSION**

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

OMB Control Number: 1860-0509

Expiration Date: March 31, 2021

### **Public Burden Statement**

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



# *Anderson W. Clark Magnet High School*

California Disadvantaged School Sustainability Award Nominee to  
U.S. Department of Education Green Ribbon Schools



Prepared By:  
California Department of Education  
School Facilities and Transportation Services Division  
[Green Ribbon Schools Award Program](#)  
February 2020

## PART II – SUMMARY OF ACHIEVEMENTS

### Anderson W. Clark Magnet High School, La Crescenta, Calif.

#### *Empowering Students to Impact Their World through CTE-Driven Curriculum*

Clark Magnet High School is located within the boundaries of the Glendale Unified School District (GUSD) and opened in 1998 as a science and technology magnet school with a mission to prepare a diverse population of students for college and the highly technical careers of tomorrow. Clark Magnet prides itself on its school-to-career philosophy and a commitment to a rigorous and relevant curriculum. More than 80 percent of the school's students are not native English speakers and over 50 percent live in poverty. These students achieve through a deliberate and strategic program that features individualized instruction structured around high-engagement strategies with a personalized approach to learning.

Clark Magnet is the flagship school of the Career Technical Education (CTE) program in GUSD. Through articulation agreements and shared grants, the school has close relationships with Glendale Community College and the local California State Universities, as well as collaborative articulation with the district's feeder middle and elementary schools. Students from the environmental science research class organized a BioBlitz event for the district and the public at Deukmejian Wilderness Park in La Crescenta. Clark Magnet students, middle school students, members of the "Human Impacts on the Environment" class at Glendale College, and interested volunteers from the community used the iNaturalist mobile app to catalog biodiversity in the hillside park, just blocks up the street from the campus.

Clark Magnet emerged as a leader in teaching environmental science research and Geographic Information Systems (GIS) with the creation of the Environmental and Spatial Technology Program in 2003. The program has evolved to include a number of classes, including Marine Science Research, Environmental GIS, and Geology of Disasters. These classes have course descriptions that are approved for the University of California "a through g" course credit.

Geology of Disasters uses the Federal Emergency Management Agency (FEMA) Hazus software for risk assessment, loss estimation, and loss mitigation as a result of natural disasters. Once Clark Magnet students were trained in the use of this software, the City of Glendale asked students to assist with writing the City's Local Hazard Mitigation Plan.

Students have gained extensive experience from field trips on ocean research vessels, particularly off the coast of Ventura and the nearby Channel Islands. Students have operated the school's robotic underwater Remotely Operated Vehicle (ROV) and sonar equipment while taking samples of marine life and photographing marine plant growth on the ocean bottom.

Clark Magnet implements project-based learning through solving real-world problems with a hands-on, practical approach. This work includes the application of core mathematics and science standards in the projects completed in technology-infused courses. Many facets of the academic and co-curricular programs require students to explore the development and application of science engineering and technology in achieving a sustainable lifestyle for humanity. In each classroom, it is not uncommon to see students dialoguing about global and environmental issues, while collaborating on ideas to develop and utilize innovative tools and systems to make positive change.

Students at Clark Magnet pursue their passions and interests through a Senior Project. The goal is for young people to demonstrate growth—a learning stretch that takes them beyond their comfort zone. In recent years, a student interested in ecological sustainability and conservation designed their own

hydroponics system and had it on display at the school. Another student focused on agriculture and designed a microclimate in their own Plexiglas ecosystem. Yet another student worked with several jellyfish species they had researched and bred.

On-site, students conducted a water survey of the campus, including the placement of water spigots and irrigation systems. An early finding is that the current pop-up sprinklers on the athletic field are not long enough to get past the soil and grass, causing inefficiencies in how water is getting to grass and foliage. Students initiated contact with the GUSD facilities department to work on solutions. In addition, students explored the microclimates on campus to identify areas that could be easily covered with shade structures and other barriers to allow students to continue to enjoy the outdoors yet stay protected from the elements.

Students use Xello, a college and career planning software, in the first few years of high school to explore interest inventories and their potential to influence the world around them. Clark Magnet's service-learning requirement also gives students real-world experience and promotes a sense of connectedness to the surrounding community. Technology permeates the campus, allowing students access via computer labs, work stations, industry-standard software applications, and 924 Chromebooks in 23 carts deployed around the campus. The online Q Student and Parent Portals and Google Suite for each student allow a seamless connection between home and school.

Clark Magnet received ENERGY STAR certification in 2010 with a score of 94, and maintains a score of 91. Between fiscal years 2009-11 and 2018, the school documented a 42 percent reduction in greenhouse gas emissions. On-site solar arrays installed in 2012 meet approximately 55% of the school's energy needs and have saved the district nearly \$500,000 to date.

Between 2012 and 2018, Clark Magnet reduced indoor water use by approximately 2 percent and outdoor water use by more than 29 percent. The school sought to further these reductions by installing Weathermatic Smart-Line Controllers for evapotranspiration watering based on weather data and other site-specific factors.

Approximately 70 percent of Clark Magnet students ride the bus. In 2018, school leaders optimized bus routes to eliminate multiple stops, reduce idling, and maximize capacity to fill seats on each trip. As a magnet school, transportation can be a challenging issue. Still, school leaders were able to reduce stops across the city from 22 to 20, and reduce the number of buses from 17 to 15, reducing the school's environmental impact as measured by vehicle miles traveled and associated emissions. On an annual "Walk to School Day," a team of Clark Magnet student leaders assists the nearby elementary school by walking with students, parents, and staff volunteers to get kids to school safely and to promote a healthy lifestyle.

To prevent asthma triggers around the school, custodial and facilities crews perform all classroom cleaning and disinfecting before or after school hours to minimize staff and student exposure to chemicals. Whenever appropriate, cleaning is done with water and microfiber rags to minimize volatile organic compounds (VOCs) introduced into the environment. Cleaning products are selected by the district's purchasing department from a list of clean products compiled by the Operation Manager. All school custodians are trained in chemical management and integrated pest management practices.

Students in Clark Magnet's Environmental Club led the establishment of a rose garden and have planted California native plants on-campus in the interest of attracting bees and other beneficial insects, and for the purpose of growing plants that are drought-tolerant. Students conducted an analysis of the microclimate at Clark Magnet and started a "living wall" of plants to reduce the heat island effect.

To reduce waste, Clark Magnet implemented a trade-in program for PE clothes and combination locks. Typically, these items were discarded in the trash after students completed their PE requirements in tenth grade. Now students turn in their clothes, which are donated to local organizations, repurposed, or recycled, and locks are recoded and reissued, keeping them out of the waste stream. This practice has also saved money, which is reinvested into intramural athletics. Students also led and designed a project to install filtered drinking water fountains as an alternative to wasteful single-use plastic bottles.

The California Department of Education recognized Clark Magnet as a 2018 California Green Ribbon School (Silver Level). Pursuit of this recognition motivated and inspired the school to continue its efforts to increase sustainability. In addition to reducing water and energy consumption through technological advances and increased awareness, Clark Magnet is committed to providing students with engaging learning experiences that allow them to find their place in the world while also having a direct positive impact.

## PART III – DOCUMENTATION OF STATE EVALUATION OF SCHOOL NOMINEE

### Pillar I: Reduce Environmental Impact and Costs

#### Element IA: Energy

- Clark Magnet implements Energy Conservation Guidelines provided by GUSD and shares their practices with the school community. The guidelines address thermostat temperature and time settings in both the cooling and heating seasons, cross-ventilation, efficient equipment practices, lighting operations, and many other parameters. Energy conservation reminders are emailed to staff regularly, to complement stickers and flyers located throughout the campus.
- Conservation guidelines are implemented by GUSD Facility & Support Operations. The district's Certified Energy Manager (CEM) [also a Certified Measurement & Verification Professional (CMVP)] conducts site audits throughout the year. The CEM's site audits pay special attention to energy conservation measures that can be implemented at no cost (e.g., behavioral change strategies). Any compliance issues related to the energy conservation guidelines are addressed by the site administrator. Staff receive holiday shutdown reminders to unplug items, reset thermostats, and remove energy-consuming equipment during the extended breaks.
- Clark Magnet achieved a 42.16% reduction in greenhouse gas emissions since establishing baseline data in the 2009 through 2011 fiscal years, prior to the installation of a photovoltaic system on campus. The average energy usage at the campus was approximately 786,844 kWh and 6,848 therms per fiscal year in the baseline. In the 2018 fiscal year, the consumption was 452,575 kWh and 7,292 therms. The school used EPA's Greenhouse Gas Equivalencies Calculator to derive metric tons of carbon dioxide equivalent (MTCO<sub>2e</sub>). The average total number of people on campus was 1,170 for the baseline year and 1,166 for the current year.
- Clark Magnet tracks its energy use monthly, quarterly, and annually via a program called Metrix 4. The system also assists in benchmarking and load factor analysis. The utility software is also instrumental in weather normalization and converting energy consumption into metric ton emission equivalency values for each greenhouse gas (CO<sub>2</sub>, CO, VOC, NO<sub>x</sub>, PM<sub>10</sub>, SO<sub>2</sub>, Mercury, Cadmium, and CH<sub>4</sub>), which is extremely helpful for calculating Green House Gas (GHG) savings. Based on the data entered into the system, the school has a current ENERGY STAR score of 91. In 2010, Clark Magnet received ENERGY STAR Certification with a rating of 94.

- The percentage of the school’s energy obtained from on-site renewable photovoltaic (PV) energy generation is approximately 55%. In 2012, Clark Magnet installed ground mount solar arrays throughout the campus that totaled 354.9 DC/kW. The system has saved \$472,210.22 in electricity costs and over 3,048,810 kWh; verifiable by Glendale Water Power utility bills.
  - The PV system is funded by CREBs (California Renewable Energy Bonds), a federal program for renewable energy projects. Clark Magnet has also received a state CTE Facilities Program (CTEFP) grant of \$3 million that will be matched by local Measure S funding to construct a highly energy efficient building to expand the Engineering pathway. The design submitted to the state architect includes open interior spaces to provide for collaboration and testing of student-built robots and ample outdoor courtyards to maximize connectedness to other program areas and natural surroundings.
- GUSD used funding from the California Clean Energy Jobs Act (Proposition 39) to implement various lighting retrofits at Clark Magnet. In the 2015 fiscal year, the district retrofitted 1,400 interior fluorescent fixtures to LEDs. The district also retrofitted 24 metal halide fixtures in the gymnasium with LEDs. Exterior lighting that encompassed compact fluorescents, metal halides, high-pressure sodium, and high-intensity discharge were upgraded to LEDs with photovoltaic cells to reduce extended hours of operation. Renovations also included infrared occupancy sensors and time clocks to prevent energy waste that occurs from lighting systems being accidentally left on in empty spaces. The district has also installed programmable thermostats that only operate on a predetermined schedule when the ON button has been pushed. The thermostats are programmed with thirty-minute overrides to allow users to operate them after hours for a limited time to prevent HVAC equipment from operating extended hours unnecessarily.

#### Element IB: Water and Grounds

- Glendale Water & Power began metering indoor and outdoor water use separately in 2011.
  - Clark Magnet documents a 1.77% reduction in indoor water use from a baseline in the 2012 fiscal year (2,486,352 gallons) to the 2018 fiscal year (2,433,899 gallons).
  - Outdoor water use has declined by 29.3% from 2012 (3,078,506 gallons) to 2018 (2,206,567 gallons).
- To further reduce water use, GUSD retrofitted all seven irrigation controllers at Clark Magnet with Weathermatic Smart-Line controllers (summer 2019). The cost and installation of these controllers was funded by the Metropolitan Water District’s SoCal Water \$mart program. The controllers are expected to reduce irrigation by a minimum of 25% up to 60% by using evapotranspiration watering to adjust the frequency, duration, and soak times based on weather data, geographical location, sprinkler type, and soil type.
- GUSD regularly conducts water audits to control leaks and prevent water waste. The “SchoolDude” maintenance application allows staff to report any leaks, runoffs, or the possibility of broken pipes for operations staff to react immediately to rectify any issues.

#### Element IC: Waste

- Clark Magnet documents a waste diversion rate of 33%. GUSD contracts with a third-party vendor that handles all waste disposal for district schools. All trucks make a stop at the Materials Recovery Facility, where waste and recyclables are processed through a combination of sorting lines, machinery, and human sorters that effectively and efficiently remove recyclables from the waste

stream. In 2018, Clark Magnet had four 4-yard roll-off bins that were collected on average four days per week with 50% capacity. In an effort to reduce waste production, the school decided to reduce the number of bins to two 4-yard bins. Now, the bins are 100% full and picked up each day. This maximizes efficiency, reduces carbon emissions, and has encouraged students and staff to reduce waste overall.

- An outside vendor picks up hazardous, flammable, and corrosive liquids from district schools and the district warehouse. Lamps are collected in their original boxes at the school site, then picked up by warehouse staff. The vendor collects these lamps/tubes from the district facilities yard and disposes of them safely. All flammable materials are stored in approved flammable liquid storage containers.
- Custodians utilize PPE (personal protective equipment) as specified on the label and/or safety data sheet. Staff follow safe work practices by attending annual required OSHA training and Hazardous Communications training. GUSD has identified and properly removed sources of elemental mercury and prohibits its purchase and use in all schools.
- The district warehouse stocks pallets of environmentally-preferable paper bearing the Sustainable Forestry Initiative seal: Georgia-Pacific, Comet Multi-Purpose, and Boise X-9 copy paper are purchased through a major contract coordinated by the procurement department.

#### Element ID: Alternative Transportation

- An estimated 70 percent of Clark Magnet students take the bus to school; the school tracks ridership using Student Information System data. The school conducts a survey annually to gather additional information on mode share. Of the students that responded (n = 500), 5% walk to school, 23% carpool, and less than 1% take a form of human-powered wheeled transportation.
- In 2018, school leaders optimized bus routes to eliminate multiple stops, reduce idling, and maximize capacity to fill seats on each trip. As a magnet school, transportation can be a challenging issue. Still, school leaders were able to reduce stops across the city from 22 to 20, and reduce the number of buses from 17 to 15, reducing the school's environmental impact as measured by vehicle miles traveled and associated emissions.
- Clark Magnet has implemented a publicized no-idling policy, designated carpool parking stalls, vehicle loading and unloading zones at least 35 feet from doors and windows, storage for human-powered modes of transportation, and designated safe routes to school.
- As part of the School Safety Plan approved by the School Site Council and the Glendale Police Department, Clark Magnet has written procedures for safe ingress and egress for students, parents, visitors, and staff. The plan address access to the campus, early release of students, traffic and parking, and policies for bicycles, skateboards, scooters and rollerblades.
- On an annual "Walk to School Day," a team of Clark Magnet student leaders assists the nearby elementary school by walking with students, parents, and staff volunteers to get kids to school safely and to promote a healthy lifestyle.

### Pillar II: Improve the Health and Wellness of Students and Staff

#### Element IIA: Environmental Health

- GUSD has a dedicated Integrated Pest Management coordinator, and a manager-level position

that verifies the correct deployment of policies across the district. A third-party vendor performs pest inspections at least twice each month. The district philosophy is that early identification of potential issues maximizes the opportunity to use non-chemical solutions.

- All custodians complete the required *Healthy Schools Act* training approved by the California Department of Pesticide Regulation annually; records are maintained in an on-site log. Clark Magnet complies with the notification, posting, recordkeeping, and all other requirements of the *Healthy Schools Act*. Clark Magnet provides GUSD's Integrated Pest Management Plan to all parents and staff annually.
- All custodians are trained on chemical management. Utilizing a dilution control center ensures no mixing of chemicals is done outside the control center and therefore no employee, student, or staff ever comes in contact with the concentrated chemical. Purchasing chemicals that are mixed with water inside the control center ensures exact measurements for proper mixture strength.
- Situated in the hills of La Crescenta, California—dubbed the Balcony of the Foothills—the campus is surrounded by mature pine trees. By design, each classroom has a wall of windows that lets in natural light, reducing the glow of artificial lighting. Office spaces are not divided by cubicles, but rather transparent glass partitions to promote a sense of openness and connectedness. An added benefit is the 360-degree view that each space maintains, panning from the Verdugo Mountains to the San Gabriel Mountains to the skyline of Pasadena and beyond.
- Classrooms are equipped with surround sound, connecting the standard multimedia setups in each room. Integrated voice amplification systems allow teachers and student presenters to be heard in all corners of the room, reducing strain and encouraging everyone to connect in the classrooms.
- The district-maintained HVAC systems provide a clean, comfortable environment year-round. While there are no sensors that measure relative humidity, on average, measurements indicate that this hovers between 25-30%. All units bring in 15% outside air and take in 15% inside air from each classroom.
- One-inch filters are replaced every 10 weeks, and two-inch filters are changed on a 20-week interval. All filters carry a MERV-8 rating. All units are cleaned once a year: the coils are flushed; lint and dirt are vacuumed and the condensation lines are cleaned.
- The HVAC in classrooms and office spaces is controlled by a SchoolStat—a specially programmed thermostat by Totaline/Venstar. After HVAC technicians noticed that in a six-month period, the units were running 1,800 hours they asked the vendor to reprogram the thermostats, which now run an average of 800 hours.
- To prevent asthma triggers around the school, custodial and facilities crews perform all classroom cleaning and disinfecting before or after school hours to minimize staff and student exposure to chemicals. Whenever appropriate, cleaning is done with water and microfiber rags to minimize volatile organic compounds (VOCs) introduced into the environment. Cleaning products are selected by the district's purchasing department from a list of clean products compiled by the Operation Manager.
- Custodial staff uses vacuums with HEPA filters to reduce contaminants and pollen in the air. Custodians clean heavy pollen from outside grounds while using proper PPE and during times that limit student exposure to airborne particles. Exhaust systems are in place in the kitchens, restrooms and gymnasium. A combustion motor pulls fumes away from heater units. Filters are changed on a regular basis. Policies and guidelines are in place to advise and educate students and staff about wearing heavy perfumes or colognes and other health sensitivities.

- Assuring a leak-free facility is a top priority. A full-time roofer makes patching all holes a top priority. The HVAC technicians work with their regional teams to address issues early-on.
- The Planning and Development Office has policies and procedures in place to ensure that materials used in new construction projects are safe and that all excavation and abatement activities are appropriate and comply with the law. GUSD is testing the site soils at Clark Magnet in preparation for the construction of a new CTE building on the northwest side of the campus.
- Access to clean drinking water at Clark Magnet is supplied by the local municipality, Glendale Water & Power (GWP) and is tested weekly internally in addition to tests performed by external laboratories. GWP sends out quality water reports yearly confirming the water delivered meets all state and federal drinking water regulations but also exceeds all standards and health requirements. The drinking water at Clark Magnet was additionally tested by the City of Glendale approximately three years ago.
  - GWP has a Cross Connection Control Program in place to ensure non-potable water or chemicals used in a system or equipment do not end up in the drinking water pipeline as a result of “backpressure.” These devices are required to be tested yearly for proper operation by an independent certified backflow prevention tester. In addition, GWP identifies pipes that need cleaning and relining or replacement to improve water quality.
- Clark Magnet’s Science Department Chair serves as the on-site contact for managing chemicals used in the laboratory setting. Chemicals are stored outside of classrooms in a locked chemical storage room. Chemicals are organized and stored by chemical families so as to minimize any accidental interaction. Each bottle or container has been carefully inventoried and entered into a shared Google document that is available to science teachers. A master list (arranged alphabetically) of the chemicals is posted in the chemical storage room for ease of locating and replacing chemicals. Hazardous materials are collected separately and stored in a designated area for hazardous waste removal by the district.
- To protect outdoor environmental quality, school buses quickly off-load students and continue on their route. The drivers are very conscious about conducting their safety checks and moving on quickly. Drop-off at the school takes less than five minutes per bus. At afternoon pick-up, the buses stage in the front parking lot in two rows. Deliveries are made at the front of the school and in the Cafeteria parking lot. Idling is not permitted during off-loading.
- Student groups have planted trees and other native plants on-campus for beautification and education purposes. The “I Never Promised You A Rose Garden” rose garden was established by a former teacher and the school’s founding principal. A bench with a flower planter at the front of the school was dedicated to the memory of a beloved school secretary and is maintained by the office staff.

### Element IIB: Nutrition and Fitness

- Clark Magnet is committed to promoting healthy food and nutrition. Nutrition Services sources approximately 65% of its produce from local farmers in Ontario, California. GUSD’s produce vendor sends out a monthly Farm to School flyer that highlights particular produce items and the farms where they are grown. Sustainably-grown California wheat is milled and baked in Los Angeles.

- Students and parents successfully implemented Share Tables in the school cafeteria, providing three locations where students can deposit and pick up packaged items, fresh fruit, or juice and milk that would have been otherwise discarded in the trash.
- School leaders collaborated with their vendor to improve on-campus vending machines by upgrading to energy-efficient models, shading the machines from the sun, and stocking them with California Smart Snack-compliant drinks and snacks.
- With an emphasis on developing the whole person, all Clark Magnet students take Health in the second semester of ninth grade. Students receive nutrition education as part of the curriculum. Up until the beginning of the 2017-2018 school year, the school operated a grant-funded Harvest of the Month tasting program.
- Students in Clark Magnet’s Environmental Club led the establishment of a rose garden and have planted California native plants on-campus in the interest of attracting bees and other beneficial insects, and for the purpose of growing plants that are drought-tolerant. Students in environmental science CTE classes conducted an analysis of the microclimate at Clark Magnet and started a “living wall” of plants to reduce the heat island effect.
- The Scientific Research teacher and her students had a project fully-funded by interested parties in the community to help them purchase Ginkgo trees to be planted throughout the campus for the purpose of beautification and shade, and educating stakeholders on climate issues.
- In 2018, Clark Magnet implemented a new trade-in program for PE clothes and combination locks. Typically, these items were discarded in the trash after students completed their PE requirements in tenth grade. Led by the PE department chair and supported by families, students turn in their clothes which are donated to local organizations or repurposed/recycled and locks are recoded and reissued to avoid waste. This practice has saved money, which is reinvested into intramural athletics.
- Students use technological tools—including digital heart rate monitors and apps on iPads—to analyze their own body mass index, pulse rates, and other metrics. The California Physical Fitness Report measures progress in areas of aerobic capacity; body composition; abdominal, trunk extension and upper body strength; and flexibility. On the 2018-19 assessment, between 80-98% of Clark ninth graders were in the Healthy Fitness Zone.
- GUSD hosts an annual Health Fair where staff members have access to screenings and hundreds of vendors to increase their personal health and wellbeing. The district also hosts a free flu shot clinic to vaccinate staff during flu season. Reduced-price gym memberships at local gyms are available for staff. At the most recent staff holiday party held on-site, staff participated in Zumba and other physical activities, integrated into the festive affair.
- In March 2019, all teachers participated in Mindfulness training, designed and delivered by a former GUSD Assistant Superintendent and education consultant. The AP US History teacher has established a wellness corner in his classroom and shares mindfulness tips that he models for other staff at faculty meetings. In recent years, staff has benefited from massages and meditation programs provided by the administration and PTSA.
- Student-designed anti-vaping posters are featured around campus. At the beginning of each school year, local partner Impact Canine Solutions brings a K-9 unit on-campus for random searches and provides parent education on the dangers of vaping. Site visits continue monthly.
- Clark Magnet staff participates in health and fitness activities under the auspices of the GUSD Wellness Committee. The Principal was a founding member of the District’s Wellness Committee. This includes the use of FitBit activity monitors as part of the Walkadoo walking program. It also

includes the Daily Challenge program through the Walkadoo and Wellvolution apps. Several small teacher groups have informally come together to go on walks around campus or in the community during their extended preparation (90 minutes) periods.

- In another partnership between the district insurance carriers and Weight Watchers, teachers, administrators, and counselors from the school meet off-site for nutrition counseling and check-ins to work on weight loss and disease prevention.
- Clark Magnet staff has access to the Employee Assistance Program (EAP) to help with the everyday challenges of life that may affect their health, family life, and the desire to excel at work. Employees are entitled to up to three consultations with a licensed clinician to address legal, financial, childcare/eldercare assistance and other health and wellness concerns.
- Students enrolled in Environmental GIS career technical education pathways have led efforts to make changes on the school campus that help to produce a healthy environment. These projects have included the student-led and designed project to install filtered drinking water fountains as an alternative to wasteful use of water in plastic bottles.
- Clark Magnet assigns 0.2 FTE (teacher) to serve as the Tobacco Use and Prevention Education (TUPE) Coordinator. This teacher is conducting smoking cessation classes for approximately 60 students this semester. In addition, the TUPE Coordinator advises the Kids Against Tobacco Smoking (KATS) Club—an extracurricular activity where students volunteer their time educating their peers about the dangers of smoking and how to kick the habit. KATS Club members conduct outreach programs with all three of the middle schools in GUSD.
- The PE Department Chair has increased the enthusiasm and buy-in for outdoor recreation activities like intramurals at the school by adding Dodgeball and a bracket-style tournament. An awards ceremony follows, to acknowledge good sportsmanship and build community. The school's daily Enrichment period allows students to have additional time for sports and play during the school day.
- Bike Club members invest approximately 100 hours outside of school during afternoons and on weekends working out and competing in regional cycling competitions. This club is run entirely by adult volunteers and exists due to the generosity of local businesses. As evidence of their hard work, the girls' team competed in the 2017 National Interscholastic Cycling Association (NICA) State Finals.
- Students from the environmental science research class organized a BioBlitz event for the district and the public at Deukmejian Wilderness Park in La Crescenta. Clark Magnet students, middle school students, members of the "Human Impacts on the Environment" class at Glendale College, and interested volunteers from the community used the iNaturalist mobile app to catalog biodiversity in the hillside park, just blocks up the street from the campus.
- Clark Magnet staff focuses on the most vulnerable student populations. Significant staff development time over the past two years has been devoted to trainings and strategies for staff members so that they can support students' physical and emotional health through programs on sexual harassment, gender issues, anti-bullying, and suicide prevention training.
  - Since 2018, staff has been trained on restorative practices and restorative circles have been held to help solve problems, restore relationships among colleagues, and better build community.
  - Since 2018, all staff and students have participated in anti-harassment and bullying training conducted by a local law firm to encourage a safe environment. The school collaborated with two Commissioners from the Los Angeles County Superior Court to

provide training on domestic violence, cyberbullying, and how to access resources in a time of crisis.

- All teachers, counselors, and administrators participated in suicide prevention training. Seeing a need to support LGBTQ+ youth, staff brought in a filmmaker who presented a film screening highlighting transgender issues. Each year, staff members attend trainings by Gender Spectrum, Gender Odyssey and the California Teachers Association to support these students.
- With the introduction of Positive Behavior Interventions and Supports (PBIS), staff has adopted the 5 Star Students app to document rewards and provide incentives for students. During the initial rollout, a school administrator served on the district's Restorative Justice Practices Support Team, working to improve social, emotional, and academic outcomes with a focus on equity.
- During GUSD Management Retreats in recent years, school administrators have taken strengths-based inventories to determine how best to utilize their own skills and to identify strategies for bringing out the best in the employees they supervise.
- Previously, the school paid for therapy and counseling through an outside company. This is called the RISE Program—Resiliency, Improvement, Strength, and Excellence. This year, the district has provided Clark Magnet with school counseling and social work interns. This has increased the school's ability to reach out and meet the needs of adolescents facing a variety of mental health needs.
- Clark Magnet provides students and their families links to a variety of student health and academic achievement resources to support them. The immediate health needs of students are provided by a health clerk, a credentialed school nurse, a school psychologist, and two academic/guidance counselors. Students are referred to medical and mental health resources in the community, as needed. There is a crisis team in place at the school that makes team decisions about referrals and next steps when students are in distress.
- Clark Magnet has made student mental health a priority. The Glendale Police Department and Los Angeles County Department of Mental Health have joined forces and supported the school by sending their mental health evaluation team to evaluate students in crisis.
- School administrators and counselors have made a concerted effort to use the Student Attendance Review Team (SART) to address chronic absences and lost instructional time. Tardies have declined by nearly 30 percent over the past four years by focusing on developing relationships between the school, parents, and students to identify health issues and other problems preventing students from fully engaging in school.
  - Volunteers from community groups, religious organizations, the probation office, and District Attorney's office sit on the Student Attendance Review Board (SARB), which connects students with attendance issues to community resources.
- A healthy school environment is supported with many opportunities for communication between parents, students, and staff. Consistent attendance, dress code, and discipline policies support character development and promote high collective and individual standards.
- Clark Magnet partners with a variety of community resources to support students and their families. The YMCA of the Foothills' Strategic Partners meet quarterly, and Clark Magnet's principal and assistant principal attend these networking meetings to learn about current trends related to drugs and alcohol prevention/mitigation. These meetings also allow the school to coordinate with local law enforcement, health care providers, and support groups.

- The local chapter of Relay for Life partners with the school each spring to host a community event to bring awareness to cancer research. While also a fundraiser, students volunteer at the 24- to 48-hour event to support survivors and their families.
- In 2017, the California Highway Patrol and the Glendale Police Department hosted a news conference and assembly for twelfth graders at the school to bring attention to the dangers of distracted driving and to educate young people on how to protect themselves.
- The Comprehensive School Safety Plan is approved annually by the School Site Council. The California Healthy Kids Survey results inform the plan's goals and objectives. Additionally, the plan addresses emergency response and specifies monthly education pieces for students and staff. Since 2018, the school has used Panorama's social emotional learning inventories to gauge student connectedness, growth mindset and feelings about school and interaction with others.
- The Glendale Education Foundation (GEF), whose board is composed of Glendale citizens and business leaders, donates hundreds of thousands of dollars each year to GUSD schools. This year, their focus is on their program "Get EveryBody Fit", which is designed to improve the physical health and overall well-being of all students, through the support of health and fitness programs. Clark has received fitness equipment as well as technology and teacher grants to support these goals.
- In December 2019, Clark held its inaugural Inclusive Schools Week—a worldwide effort sponsored by the Inclusive Schools Network and Stetson & Associates, Inc.
- Student groups actively engage in schoolwide efforts for a drug-free culture during Red Ribbon Week in October and promote kindness during Yellow Ribbon Week in January. Clark was recognized in January 2020 as a "Kindness Certified School" by the Great Kindness Challenge/Kids for Peace 501(c)(3).
- GUSD's Child Welfare and Attendance (CWA) office ensures that students who are uninsured or underinsured have access to therapy and other health care services. CWA also provides students and their families with bus passes and tokens to provide consistent transportation in the community. The CWA Food Pantry provides fresh and non-perishable food for students who are low-income, homeless, or foster youth. These families are also eligible to receive clothing and a new pair of shoes every six months.
- Through ACTION, students have access to drug counseling and support groups in weekly meetings at the district's continuation high school. Parents/guardians also can take parenting classes there. On the community level, Glendale Healthy Kids is an entirely volunteer-run organization that partners with the school to provide dental and other medical services to the underinsured and uninsured.

### Pillar III: Provide Effective Environmental and Sustainability Education

#### Element IIIA: Interdisciplinary Learning

- Clark Magnet's personalized instructional approach begins by providing a solid STEM foundation. Entering ninth graders are introduced to the unique curriculum through three foundation courses: *College and Career Prep* allows students to start planning their high school, higher education, and future career paths; *Conceptual Physics* provides all students with critical coursework that prepares them for future science classes; and *Technology Literacy* equips students with introductory skills that prepare them to undertake more advanced courses in their chosen pathway.

- The design of the school day sets students up for success: a seven-period day allows students to earn 70 credits each year, as opposed to the 60 earned on a traditional schedule; an alternating 90-minute block schedule allows teachers and students to dive deep into lessons; a built-in Enrichment Period at the end of the day connects students to teachers in an “office hours” setting; and students have direct access to interventions within the school day.
- Clark Magnet emerged as a leader in teaching environmental science research and geographic information systems (GIS) with the creation of the Environmental and Spatial Technology Program in 2003. The program has evolved to include a number of classes, including Marine Science Research, Environmental GIS, and the Geology of Disasters. These classes have course descriptions that are approved for the University of California “a through g” course credit. In Spring 2018, Geography 155, a Glendale College dual enrollment class, was added to the Environmental pathway, along with AP Environmental Science.
  - Geology of Disasters uses FEMA Hazus software for risk assessment, loss estimation, and loss mitigation as a result of natural disasters. Once Clark Magnet students were trained in the use of this software, the City of Glendale asked students to assist with writing the City’s Local Hazard Mitigation Plan.
- Students in Biology, Chemistry, and Physics classes are introduced to concepts in ecology, environmental chemistry, and sustainable energy sources such as solar electricity. The Science Department is currently in the implementing and integration stage of the Next Generation Science Standards (NGSS), which includes aspects of earth science integrated into biology, chemistry, and physics classes.
- Clark Magnet’s AP Environmental Science teacher was recognized in Fall 2019 with the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring (PAESMEM).
  - This teacher is very active in the community and was called upon by the Ventura County Sheriff Department to assist in the aftermath of the diving boat explosion near Santa Cruz Island in September 2019. The teacher brought the school’s underwater remotely operated vehicle (ROV) to help search the debris field. The teacher used this time to also create a real-life, interactive lesson for her students, using Esri mapping software to bring this data back into the classroom.
- A consistent and important research theme for Clark Magnet students involves fishery sustainability. Students have also investigated invasive species and their effect on ecosystems and natural habitats and presented their research findings on heavy metal contamination in the Los Angeles Harbor to the Department of Homeland Security and to consortia of federal and state law enforcement agencies.
  - Environmental science students have presented their own original research at conferences including the Esri GIS Users Conference and Ocean GIS Conference. Student teams have won \$400,000 in scholarship and program funds in the Lexus Eco Challenge national competitions.
- Clark Magnet offers 17 Advanced Placement courses, which offer students opportunities to take college-level classes at the high school level. The science offerings include AP Biology, AP Chemistry, and AP Physics 1 and 2. These courses lay the groundwork for student understanding of core scientific principles, theories, and processes governing living organisms. In the past two years, AP Environmental Science has grown from a handful of students to two full class sections, broadening student perspectives about how the Earth is one interconnected system and that human survival depends on developing practices that will achieve sustainable systems.

- AP courses in the social sciences—specifically AP World History and AP US Government & Politics—focus on the interaction between humans and the environment as well as the development and interaction of cultures. Students analyze and discuss the importance of various principles, human rights, political procedures and institutions, and how these systems are interdependent and impact global citizens. In AP Spanish, students grapple with essential questions related to how societies and individuals define quality of life and how environmental, political, and social issues pose challenges to societies throughout the world. Students do not wait until the AP level to confront these issues head-on. Due to school’s science and technology focus, there is a natural “bent” to lesson design and instruction where teachers encourage students to think broadly and innovatively.
- GUSD invests substantial financial resources to offer two collaboration days each year for each department. Science teachers have been using this time to refine their understanding of NGSS and develop integrated lessons based on the new standards.
- Clark has had an established Green Club for many years. Past school-based service projects include planting drought-tolerant native plants and the installation of rain collection barrels on the campus. Club members also have volunteered at local community and beach cleanups.
- As a part of the school’s Environmental Science pathway courses, students have gained extensive experience on field trips on ocean research vessels, particularly off the coast of Ventura and the nearby Channel Islands. Students have operated the school’s robotic underwater ROV and sonar equipment while taking samples of marine life, and photographing marine plant growth on the ocean bottom. Other field trips have included presentations at conferences in Sacramento, Arkansas, and the annual Esri GIS conference in San Diego. Student teams have also done field trips to launch and retrieve weather balloons and to build underwater robots for use in competitions at California State University, Long Beach.
- Clark has a graduation requirement to complete a Senior Project that includes a research paper plus fieldwork, and some of the students have chosen environmental projects. One student researched the effects of acid rain on organisms. Another student synthesized biodiesel fuel from recycled French fry oil. Other students have worked extensively with GIS software and earned internships using the software at the Department of Public Works in the City of Glendale. Grant funding has been used to bring groups of students from feeder middle schools to visit the Clark Magnet science classrooms for student presentations. Students submitted papers for annual IEEE Technologies for Sustainability Conference in November 2018.
- A Clark Magnet Class of 2017 alumnus attended the EarthEcho International conference in South Carolina. He visited Saint John Island conducting research on ecotourism adventure. This student credits the encouragement of his Scientific Research teacher with his being able to participate in this all-expense-paid learning opportunity.

### Element IIIB: STEM Content, Knowledge, and Skills

- Clark Magnet implements project-based learning through solving real-world problems with a hands-on, practical approach. This work includes the application of core mathematics and science standards in the projects completed in technology-infused courses. Many facets of the academic and co-curricular programs require students to explore the development and application of science engineering and technology in achieving a sustainable lifestyle for humanity. In each classroom, it is not uncommon to see students dialoguing about global and environmental issues, while collaborating on ideas to develop and utilize innovative tools and systems to make positive change.

- Clark is a STEAM-focused magnet high school that takes STEM to the next level with additional emphasis on and integration of art. This includes digital arts classes in design, cinematography, and animation.
- Students at Clark Magnet pursue their passions and interests through a Senior Project. The goal is for young people to demonstrate growth—a learning stretch that takes them beyond their comfort zone. In recent years, a student interested in ecological sustainability and conservation designed their own hydroponics system and had it on display at the school. Another student focused on agriculture and designed a microclimate in their own Plexiglas ecosystem. Yet another student worked with several jellyfish species they have researched and bred.
- In pathway courses, students have applied their knowledge of green technologies in a variety of oceanographic projects including ArcGIS, remotely operated vehicles with imaging sonar, image analysis for remote sensing projects, and hand-held Trimble GPS and data collection apps. Students designed and produced recyclable water bottles made from algae. In a number of cases, students have earned internships and jobs working for the City of Glendale while doing GIS projects such as mapping all of the public transportation stops in the city.
- On-site, students have conducted a water survey of the campus, including the placement of water spigots and irrigation systems. An early finding is that the current pop-up sprinklers on the athletic field are not long enough to get past the soil and grass, causing inefficiencies in how water is getting to grass and foliage. Students initiated contact with the GUSD facilities department to work on solutions. In addition, students explored the microclimates on campus to identify areas that could be easily covered with shade structures and other barriers to allow students to continue to enjoy the outdoors yet stay protected from the elements.
- On Ada Lovelace Day, female speakers come to Clark Magnet for a plenary session and Q&A period where students get to hear from real-life leaders in technical, medical, and science fields. This promotes the belief that all students can succeed and that there is a prominent place for women in STEM fields.

### Element IIIC: Civic Knowledge and Skills

- As a result of their volunteer activities in the community, a number of students have obtained jobs working for the City of Glendale, in collaboration with the local non-profit, Glendale Youth Alliance, which aids in training and placement.
- Students at Clark Magnet researched soil composition on-site, including fertilizers and other components and compounds present. The students then worked with the facilities department to integrate environmental and sustainable approaches that improve life for students and staff at the school.
- Through almost every CTE Pathway and in a variety of other classes at Clark, students participate in meaningful outdoor activities. Photography students practice their still life photos, many of which highlight Southern California nature scenes. Animation students practice their life drawing skills and work on perspective by taking a field trip to the adjacent Dunsmore Park, just outside campus. There, they draw the trees as they see them, focusing on detail. Creative Writing students venture over to the park as well with their teacher, looking for inspiration in the outside world and also performing their own poetry readings. The Spanish Honor Society uses Dunsmore Park as the backdrop for its induction ceremony. Cinematography students film on-site at Fort Tejon, a California State Park near the Grapevine and the Tehachapi Mountains. Through the Marine Science Pathway, students have become SCUBA certified. Students in Grades 10-12

participate in Heal the Bay beach cleanup activities. Students on the research vessel field trips analyzed ROV data showing damage by debris and microplastics.

- Clark Magnet’s Environmental Science students take their GPS equipment outside when mapping locations of water sources, soil, or microclimates on campus as part of other larger projects. Students in this program have developed excellent presentation skills when delivering the results of their project studies to law enforcement and government agencies. Students regularly create very carefully developed academic posters for presentations.
- Students also analyzed satellite, and water sample data and found the likely locations for illegal drug production sites in the Los Padres Forest. They then presented their data to the Ventura County Sheriff’s Department for further investigation. In another partnership with the City of Glendale and local middle schools, students and teacher leaders used Esri ArcGIS software to map Deukmajian Wilderness Park with a particular interest in native plant and animal species in the area.
- A number of extracurricular options provide students an opportunity to master state standards while also making an impact on the world around them. Model United Nations exposes students to geopolitical issues and helps them discover their role in society through active civic engagement. Mock Trial helps students to better understand their civic duty and provides opportunities to explore the legal system from all angles and practice skills in a public forum. Under the mentorship of local leaders, students practice complex decision-making skills, including developing an understanding about how their decisions affect the resources and natural systems in their local environment.
- In April 2019, the school hosted California’s Secretary of State Alex Padilla as he toured the state promoting voter education month. Students participated in a huge assembly and voter registration drive that featured talks by local government leaders and Secretary Padilla. This was a pivotal moment for the school’s civic engagement efforts, especially since students younger than 17 were able to pre-register to vote.
- The school partners with a number of community-based organizations, including Glendale Community College (GCC), and a growing number of dual-enrollment college classes are offered on the Clark Magnet campus. This collaboration with GUSD’s CTE Counselor and GCC’s Career Pathways and Workforce Development Program Manager supports the creation of programs and pathways that expose students to career options and education at the high school level so that they can earn advanced certification and go directly into entry-level jobs in industry after graduation.
- Clark Magnet has articulation with the GIS program at California State University, Northridge (CSUN). The school also receives extensive support from Esri, a leader in the field of GIS.
- Local community members also partner with the school. Scientists, engineers, and researchers serve as mentors for the robotics program and the school’s cybersecurity club. A retired teacher and other parent volunteers lead workouts and provide supervision for the Clark Bike Club. Key Code Media has been instrumental in designing the AVID infrastructure in the Cinematography lab and training students in school and providing internships in their organization. The Verdugo Creative Technologies Consortium—a collaboration among CTE programs in Glendale and surrounding districts—has provided students interested in animation and cinema transportation to classes and workshops at CSUN. Student productions have been on display at a film festival held at GCC.
- Advanced Engineering and Manufacturing students have received over \$55,000 in scholarships over the past five years from the Gene Haas Foundation. Each computer in the GIS computer lab

is equipped with over \$25,000 worth of software donated by Esri. The partnership between faculty and their professional organizations has made this possible. Perkins Grant funding has equipped two computer labs on campus where the Technology Literacy, coding and photography classes take place. GUSD and school leadership have been instrumental in locating resources and deploying them to all classrooms. While each student at is encouraged to follow one (or more) pathways through to completion, one does not have to be locked into a program to benefit from the unique structure of the high school. The abundance of technology far surpasses 1:1 integration of laptop or workstation deployment.

- Even the way student leaders engage their peers in activities is innovative. Rather than take a GradNight trip to Disneyland or Magic Mountain, which is the norm for most twelfth-grade students, Clark Magnet students celebrate senior year with multiple outdoor activities: senior sunset and sunrise events, a senior barbecue held in the quad, and an early-September trip to Catalina Island, where students hike, cycle, snorkel, fish, and play in the water along the beach in Avalon. The Clark experience is unique and makes a lasting impact on the lives of students.