District Sustainability Award Nominee Presentation Form

CERTIFICATIONS

District’s Certifications
The signatures of the district superintendent on the next page certify that each of the statements below concerning the district’s eligibility and compliance with the following requirements is true and correct to the best of the superintendent’s knowledge.

1. The district has been evaluated and selected from among districts 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.

2. The district is providing 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.

3. OCR has not issued a violation letter of findings to the school district concluding that the nominated school district 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.

4. The U.S. Department of Justice does not have a pending suit alleging that the school district has violated one or more of the civil rights statutes or the Constitution’s equal protection clause.

5. 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 school district in question; or if there are such findings, the state or school district has corrected, or agreed to correct, the findings.

6. The district 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.

7. The district has in place and is willing to provide a link to or 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 District Sustainability Award

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

District Name: Iowa City Community School District  
(As it should appear on an award)

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

Date: 2/23/2023  
(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 district’s eligibility and compliance with the following requirements is true and correct to the best of the Authority’s knowledge.

1. The district 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 education.

2. The district 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: Iowa Department of Education

Name of Nominating Authority: Scott Dryer

(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: Feb 24, 2023

(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: 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.
Thank you for your interest in completing Iowa’s application for nomination to U.S. Department of Education Green Ribbon Schools (ED-GRS), District Sustainability Award, or Postsecondary Sustainability Award. ED-GRS recognizes early learning centers, schools, districts, and postsecondary institutions taking a comprehensive approach to sustainability, incorporating environmental learning with improving environmental, and health impacts. You must show progress in each of the following Pillars and all of their corresponding elements found here:

- **Pillar I**: Reducing environmental impact and costs;
- **Pillar II**: Improving the health and wellness of students and staff; and
- **Pillar III**: Offering effective environmental and sustainability education.

Early learning centers, schools, districts, and postsecondary institutions demonstrating progress in every area will receive the highest scores. It may be helpful to review the Green Strides School Sustainability Resource Hub for resources related to each Pillar.

**Submission Details:**

- Applications are due February 10, 2023.
- Required materials: Complete and submit this application in a single Word or PDF file. Pictures may be sent as a separate attachment.
- Direct questions and the final submission to scott.dryer@iowa.gov or 515-402-8700.

**Enter Nominee Information**

- School, District, or Postsecondary Institution Name: Iowa City Community School District
- Category of Nomination (Early Learning Center, School, District, or Postsecondary): School District
- Address: 1725 North Dodge
- City: Iowa City
- State: Iowa
- Zip: 52245
- Twitter: https://twitter.com/IowaCitySchools
- Facebook: https://www.facebook.com/IowaCitySchools
- Top official (School=Principal; District=Superintendent; IHE= President): Superintendent
- Title (Mr./Ms./Mrs./ Dr.): Mr
- First Name: Matt
- Last Name: Degner
- Position/Role (Principal/ Superintendent/ President): Superintendent
- Email: degner.matt@iowacityschools.org
- Phone: 319-688-1000
- Lead Applicant (if different) Title (Mr./Ms./Mrs./ Dr.): DR
First Name: Chace
Last Name: Ramey
Position/Role (Teacher/ Sustainability Director/ Facilities Director): Deputy Superintendent
Email: ramey.chace@iowacityschools.org
Phone: 319-688-1000

Check all that apply:
Early Learning X   Elementary X   Middle X
High X   Public X   Private □
Charter □   Non-Public □   Two-Year □
Four-Year □   Community College □   Career and Technical □
Urban X   Rural X   Suburban X

Provide percentages, if any are relevant to your school, district, or institution:
• Pell Recipients:
• Free and Reduced Price Lunch: 41%
• Minority: 47%
• Limited English Proficient: 13.1%

Provide the following, if relevant:
• Special Education: 1435=9.6%
• Graduation Rate: 91.6% (2021)
• Attendance Rate: 92%
• Total Enrolled: 14,972
• Number of Schools: 29
• Buildings: 34
• Campuses: 29
Documentation of Sustainability Achievement

Narrative for Pillar I: Your Efforts to Reduce Environmental Impact and Costs

Intro

Iowa City Community School District (ICCSD) has an extensive list of implemented practices to improve sustainability within the school district. These practices make up a systemic effort with contributions by the ICCSD School Board, ICCSD Administrators, Faculty/Staff, and Students. ICCSD works closely with a 3rd party engineering firm to complete annual review of ghg reduction efforts, identify potential reduction strategies, and record changes to annual ICCSD ghg emissions. The information is shared annually in a public Operations meeting with the ICCSD School Board. ICCSD is currently at the beginning of a FMP 2.0 plan that will continue to make improvements in ghg reduction and sustainability within the district.

Many of objectives listed below are in the partial implementation phases unless its specifically identified as being completed district wide. Please note student efforts vary by school and are typically student driven efforts.

Board/Admin

Climate Action Resolution
ICCSD School Board adopted a District Resolution to Address Climate Change in 2019. The Board resolution established a 45% reduction in ghg by 2030 and net zero by 2050. The board has since been updated annually along with updated FMP 1.0 and FMP 2.0 strategies. ICCSD’s 2030 emissions target was achieved in 2021 due to FMP 1.0 projects and an increase in MidAmerican Energy’s conversion to renewable energy.

Below: ICCSD emissions graph from 2018-2021
Utility Company Energy Conservation Incentives

ICCSD works with 3 separate energy suppliers. The two primary energy suppliers have Energy Conservation Programs to review energy conservation methods for new construction. ICCSD works with its energy suppliers ahead of new construction or building renovations to review energy saving options on its projects. Post construction, the energy suppliers finance a post construction review of the building systems by a 3rd party consultant. The 3rd party consultant provide the energy suppliers and the district a verification report on the completed building. The report benchmarks the projected energy savings vs the actual. This allows the district to evaluate efficacy of different energy savings approaches and the energy suppliers provides financial incentives to the district to offset the cost of installing energy efficient systems. To date the district has been awarded over $2,000,000 in Utility Company Energy Conservation Incentives.

Energy Conservation awards

ICCSD has received numerous Energy Conservation awards.
- 2016- Penn Elementary; Excellence in Energy Efficient Design Award based on 55% kBTU savings compared to the CNC program baseline.
- 2016- Alexander Elementary; Excellence in Energy Efficient Design Award based on 61% kBTU savings compared to the CNC program baseline.
- 2018- Liberty High School; Excellence in Energy Efficient Design Award based on 56% kBTU savings compared to the CNC program baseline.
- 2018-Hoover Elementary; Excellence in Energy Efficient Design Award based on 51% kBTU savings compared to the CNC program baseline.
- 2019- Liberty High; Design Engineers won the first-place Technology award for New Educational Facilities in ASHRAE Region VI. A 40+% energy savings compared to the ASHRAE 90.1-2010 baseline.

City of Iowa City Climate Action Commission

ICCSD has a City Elected ICCSD staff member on the City of Iowa City Climate Action Commission. The Climate Action Commissioner acts as a liaison for the district in information sharing, coordination of efforts, and information/data gathering etc.
Building infrastructure

ICCSD recently completed its Facilities Master Plan 1.0 (FMP 1.0) in 2021. ICCSD FMP 1.0 included a series of upgrades to buildings to improve energy efficiency. During FMP 1.0 nearly every district facility received upgrades based on the need of the individual facility. Meaning, not all facilities included all potential upgrades as part of the FMP 1.0 projects. Some of the sustainability upgrades and district assets include: new roofing, new glazing, high efficiency chillers, high efficiency heaters, LED lighting, motion sensors, light harvesting systems, programmable HVAC, low flow toilets/sinks, porous concrete, VRF systems, etc. More notable FMP 2.0 upgrades are listed below.

Geothermal Systems/VRF Heat Pumps

Currently 25 of the 29 ICCSD schools operate on Geothermal Systems. These systems use a food grade glycol mixture with 25%-30% glycol. Nearly all the 25 schools Geothermal Systems provide heating for 100% of the building.

In the next 5 years ICCSD is projected to build 3 additional elementary schools as part of its FMP 2.0. Each the new schools will include geothermal systems. Additionally, 2 of our exiting schools will have geothermal systems completed with the FMP 2.0. The two remaining schools do not have the property footprint to have geothermal systems constructed.

In the case of Northwest Junior High School, the district had a strategy requirement of 20% improved performance with the conversion to VRF Heat pumps. The Mid American Energy Company verification report found the district achieved 91.5% improvements in classrooms alone.

Lighting upgrades

During FMP 1.0, ICCSD made a conscious effort to increase natural sunlight into nearly all classrooms and install Light Harvesting technology into buildings when possible. Greatest majority of classrooms have natural lighting. This was accomplished with a variety of methods including skylights, clearstory windows, solar tube lighting systems and insulated windows. ICCSD currently has light harvesting in every school and administrative building in the district.

ICCSD is in the process of updating all lighting to LED and approximately 75%-85% of the district currently features LED lighting. As light fixtures become obsolete, and as buildings are renovated, obsolete ballast systems are being replaced with energy efficient LED lighting. For example, Northwest Junior High classroom conversion resulted in “Lighting power reduction of 62%” according to the post construction 2022 verification report.

Electrification of appliances, water heaters, and HVAC

During FMP 1.0, the district started the conversion of appliances, water heaters and HVAC to electrical system, moving away from typical gas-powered units. This initiative is driven primarily by the lifecycle of the equipment. As equipment fails or becomes obsolete the gas-powered equipment is retired and replaced with electric powered equipment. However, some systems are
bring upgraded if extensive construction is completed on the facility. The replacement units are high efficiency chillers, heaters, and hot water heaters. During FMP 1.0, numerous gas boilers were removed in favor of electrical systems. The strategic plan to convert to electrical is in line with local power companies and their efforts to change the power grid to 100% renewable.

ICCSD is in the process of converting production kitchens and home economics rooms to electricity. The district currently features 2 fully electric production kitchens, and 4 partially electric production kitchens. ICCSD is currently in the FMP 2.0 design phase for 2 school additions. With the completion of current FMP 2.0 projects, the district will convert 2 additional kitchens to 100% electric by the fall of 2024.

FMP 2.0 includes additional HVAC system conversion to electricity. Some include City High schools decommissioning of gas boilers, Southeast Junior High gas boilers, Weber Elementary and Wickham Elementary. Some will get replaced during the HVAC upgrades.

**Grounds**

**Tree Canopy Initiative**

ICCSD has an ongoing Tree Canopy Initiative. The initiative includes a 3-year review cycle, GPS and accession number for all trees, a tree replacement plan, an Iowa Department of Natural Resources (IDNR) approved tree selection for diversity, and annual education driven student planting dates in the spring and fall. District Grounds staff use i-Tree Canopy to monitor canopy coverage, energy impacts on district buildings, planting locations, species diversity, age, carbon sequestration, etc.

ICCSD maintains a annual planting schedule of approximately 3-5% increase in total canopy expansion per IDNR recommendations. The district maintains a strict planting diversity of no more than 10% Genus and 5% species per IDNR recommendations.

**Prairie Initiative**

ICCSD is currently implementing a Prairie Initiative to convert unused turfgrass spaces to usable educational prairie spaces, pollinator spaces and Monarch weight stations. The district is in the process of converting 1-5 acres of turfgrass to prairie each year. The district IPM program requires a minimal use of pesticides during this establishment process. Many of these prairie spaces are incorporated into the Outdoor Classroom Initiative currently being implemented. Currently 28 of the 29 ICCSD school has dedicated prairie or wetland spaces. ICCSD Grounds tracks head and volume of prairies across the district. Data is collected on carbon sequestration potential and is calculated into the annual ghg calculations.

**Detention, Retention, Bioswales, and Raingardens**

During new construction projects, Detention, Retention Bioswales, or Raingardens are utilized to offset any new impermeable surfaces created during construction. The district maintains 1 demonstration rooftop garden. The rooftop garden is maintained by students under the direction of faculty and staff.
Native Plants

ICCSD primarily uses native plants for foundation plantings around buildings. However, City code requirements around headlight screening prevents the district to exclusively use Native plants. At ICCSD Alexander Elementary school the dedications parking lot islands act as a native plant nursery area. This nursery space was designed for this practice with the construction of the school and has provided cuttings since 2015. Divisions are taken from this nursery area and used to supplement building foundation beds around the district.

Streamline Recycling Program and Cafeteria Composting

ICCSD has a well developed recycling program on the operational side of the district with regards to cardboard, light bulbs, pallets, metal, batteries, books, etc. During 2021 the district began implementing streamline recycling at the classroom level. Currently the district has 12 schools operating on the new streamline recycling program. The program is expected to reach 100% completion in the spring of 2024.

ICCSD is currently running a kitchen/cafeteria composting program at North Central Junior High and City High School. West High School is scheduled to start the same composting program in the Spring of 2023. Each of the 3 schools composting programs were developed and implemented by student Sustainability Clubs with faculty and staff oversite.

Transportation

In 2019 ICCSD replaced the entire older diesel bus fleet with lower emission buses. The new buses feature airbrakes, 3 internal 24/7 security cameras and 1 stop arm camera, emergency radios, and GPS systems.

The district is currently working with Design Engineers to develop a plan to convert the fleet to 100% electric to meet the Net Zero 2050 goal. The district is currently working with Mid-American energy and Design Engineers on the capabilities of vehicle to grid technology and the possible implementation with a new electric bus fleet.

Currently the district has a small number of solar panels at one of its 2 bus storage facilities and intends to run a pilot program for both solar and VTG technology.

ICCSD Transportation Department utilizes computer software to determine the allocation of the buses in the most efficient manner. The software also calculates the most efficient bus routes enabling the district to reduce fuel usage.
Narrative for Pillar 2: Your Efforts to Improve the Health and Wellness of Students and Staff

Indoor Health and Safety

Air quality

ICCSD has a proactive approach to air quality. Completing regular testing. ICCSD utilizes a third-party engineering firm to test radon on a 4-year cycle and follows engineer recommendations for mitigation. Currently ICCSD HVAC systems actively monitor CO$_2$ in every room and every building. The CO$_2$ levels are monitored for HVAC efficacy and the need for upgrades or adjustments to fresh air intake volume. District HVAC systems automatically start bringing in fresh air when CO2 exceed to 800 ppm. Since the beginning of the pandemic ERU systems run 24 hours a day 7 days a week to ensure improved air exchange.

All mold and allergen complaints are investigated by a team. The typical team is made up of a Custodial Manager, IPM Coordinator, HVAC Lead, Crafts Manager, and/or Health and Safety Manager. The team will conduct room inspections, complete air quality testing for mold and allergens, take corrective action for mold mitigation, and if necessary, make adjustments to the HVAC systems for allergens.

ICCSD has a HVAC Preventative Maintenance program to change filters for ERU fresh air systems every 30 days while individual room units are changed every quarter.

Lead and Asbestos Management programs.

ICCSD has a very pro-active Asbestos Management system and is in compliance with 2010 in Federal Compliance standard, Asbestos Hazard Emergency Response Act (AHERA). ICCSD has a 3 year Asbestos Master Plan that maps where all known asbestos is in the district as well as the condition of the asbestos. ICCSD works directly with a 3rd party engineering firm who oversees the Asbestos Management Program. Prior to all construction projects asbestos and lead testing is completed on existing construction material and abated prior to construction. All Facilities craftsmen and custodians participate in an annual asbestos awareness training. ICCSD Facilities has its own Asbestos Abatement Team for smaller project and utilize qualified contractors for larger projects. The district follows all State and/or Federal requirements for abatement.

ICCSD water is tested in all of its school on a 5-year test cycle for both lead and copper. The district checks for irregularities and the needs for corrective action.

The district also has a Lead Management Program for testing and mitigation of lead found in construction materials. The district completes testing prior to construction projects for identification and mitigation.
Cleaning Practices

Cleaning practices include food grade cleaning products and follow IPM procedures of dwell and drying times. Cleaning frequency and detail was increased during the pandemic. Some of these practices remain in place and are implemented based on student/staff illness during flu season.

All custodial staff are trained annually on subjects such as proper PPE usage, body fluid exposure, annual asbestos training, playground safety inspection, IPM, and equity.

Cleaning equipment includes considerations like air pollutants and includes items like microfiber cloths and mops, and HEPA vacuum filters. The use of microfiber contributes to the reduction of water usage, chemical usage, bacteria reduction, and a reduction of air particulates.

ICCSD custodial staff utilize industry best practices for cleaning and Hillyard CCAP program for management of cleaning practices. The use of this program helps ensure industry best management practices are being followed in as efficient way as possible.

IPM program

ICCSD has a extension IPM policy and program that has gained recognition by industry peers and professionals. ICCSD's IPM program has been utilized by numerous governmental schools and municipalities as frame work for the development of their own IPM Program. Our program is governed by a board policy and is facilitated by a District IPM Coordinator. All applications of pesticides are approved by the IPM Coordinator after careful review of pest thresholds and after non-pesticide applications have been proven effective. Prior to all indoor pesticide applications, notice is sent from the IPM Coordinator to share with all staff, faculty, and parents at the school. Outdoor applications require the same notification along with a sign at each main entrance to notify the public where pesticides may have been applied. The signs remain for a duration of 7 days.

Since the adaption of the IPM program, the district has been able to reduce indoor pesticide liquid spray application from monthly at each school to zero over the last 5 years. Pest infestation that requires the use of pesticides are treated with over-the-counter gel baits by state certified applicators. Gel bait applications remain minimal with all gel bait applications completed in off school times. The bait is placed in hard-to-reach locations like behind the baseboard of walls and the area is washed and cleaned of residue following control of the infestation.

During the 21/22 school year, the Facilities Dept. received 173 indoor pest complaints. Only 14 of the complaints required pesticides to mitigate the indoor pest infestation. All infestations were controlled with 1-2 gel bait applications due the use of non-pesticide control measures. All other complaints proved to not be a health risk to humans or were controlled via non-pesticide methods.

The Outdoor IPM Program feature pesticide free lawns at all Elementary schools. High schools and Junior Highs allow limited applications in the front of the building and on athletic fields. The remaining turf areas (approximately 70% district grounds) are pesticide free. Chemical trimming
around tree rings and obstacles is allowed at all schools however Elementary schools have a 60 foot pesticide free zones around playgrounds that includes tree rings and fences.

The athletic fields have strict procedures with action thresholds. A percentage of weeds are allowable on competition athletics fields but have action thresholds for when the district believe the weeds pose a risk to athletes. If applications are completed, the field is closed for a minimum duration of 24 hours or longer depending on REI of the pesticides. All industry best practices are required to be followed prior to the use of pesticides. Example: seeding program, aeration program, rest periods of the fields, topdressing, manual removal, mowing, etc.

ICCSD Grounds voluntarily elects not to use fertilizers containing phosphorous on all school grounds except for 2 sand capped competition fields. Mowing heights are adjusted based on the competition season to decrease the use of fuel and ghg. The central computer program designed to run irrigation at all athletic facilities is currently being implemented. This allows for remote operation and adjustment for rain accumulation. The software does have the capability for water conservation and is already being utilized at the updated facilities.

Outdoor Physical Activities

All of ICCSD elementary facilities feature greenspace and appropriate supplies for activities such as soccer, footballs, frisbee, and backstops for kickball. In one space restricted school, the district has a written agreement to use the park space next door providing the missing green space to our students. All elementaries are provided outdoor basketball hoops with multiple painted courts, universally designed playground equipment, hard surface kickball, hopscotch, and 4-square activities. The playgrounds feature, tether ball, funnel ball, and some feature functionally linked equipment (“Ninja Courses”) to promote the development of physical skills. ICCSD provides age-appropriate playground equipment to match the developmental sequence of students. ICCSD is currently implementing additional “Action paths” to promote various developmental skills such as tiptoe, sprinting, hopping, jumping, walking backwards, etc. At least 1 high school and 1 junior high schools have outdoor basketball courts for students to use during lunch breaks and after school hours.

PE teachers are tasked with introducing students each year to the various outdoor activities and games along with the appropriate rules for each game. PE and Special Education teachers are also included in Playground Design Teams to help identify what equipment should be included to promote physical activities of students of all abilities. PTO’s typically work with the Principals and PE teachers to identify playground supplies needed by the schools and provide a funding source for the school.
Nutrition Services

Local Product Usage

- We work with Field to Family, an organization who connects local farmers with schools through their food hub, to source local products in large quantities.

- This year the district purchased over 4300 pounds of Stout melons and almost 8000 pounds of Wilson apples. Local tomatoes, cucumbers, zucchini and sweet potatoes were also purchased. Other local produce vendors include Organic Greens, Friendly Farms and Ridgeview Farms.

- 65,170 containers of local yogurt were purchased from Country View Dairy in Hawkeye.

- Field to Family was awarded the Market Diversification Award in early March from Iowa Secretary of Agriculture, Mike Naig. The district is proud to partner with Field to Family to provide local produce and dairy to our students.

- The district was recently awarded a $200 mini grant for the 2022 Iowa Farm to Summer Campaign, “Lettuce Eat Lettuce.”
Narrative for Pillar 3: Your Efforts to Ensure Effective Environmental and Sustainability Education

Academics

High Reliability Schools

With the ICCSD High-Reliability Schools instructional framework, all students receive a guaranteed and variable curriculum, assuring consistency in learning standards for grades K-12 and supporting high achievement at all levels. A consistent component of the HRS framework is providing students and teachers with the ability to connect student learning to college and career readiness goals, aligning essential standards to post-secondary opportunities and lifelong learning. Students build extended learning and a deeper understanding of content through interdisciplinary connections. With expanded cross-curricular partnerships through Professional Learning Communities, teachers work collaboratively to create cross-curricular projects that allow students to connect their knowledge in multiple areas and demonstrate proficiency in the essential learning outcomes through cross-disciplinary projects. By emphasizing the interconnectedness between environmental, global, and socio-economic systems, students learn the principles of sustainability and systems thinking in relation to interdisciplinary concepts.

ICCSD Portrait of a Graduate Program

The Iowa City Community School District's Portrait of a Graduate defines the six core competencies that articulate our community’s aspirations for all of our students. The six ICCSD Portrait of a Graduate competencies are adaptability, communication, critical thinking, empathy, learner’s mindset, and global citizenship. All six competencies help students develop interdisciplinary collaboration and integration of skills. Students work effectively and productively within cross-disciplinary teams, demonstrating experience to use critical thinking, adaptability, and effective communication skills to address local, national, and international environmental issues. Through a broadened understanding of sustainability principles within local issues, students learn how to recognize and advocate for civic engagement and inclusive practices. All six competencies help our students understand their social and professional responsibility as a citizen and become more prepared to take on social responsibilities as an adult. Economic, environmental, and social perspectives are interconnected in order for students to identify, act on, and evaluate their professional and personal decisions. Students also build knowledge on how to address sustainability challenges in a global context through the application of sustainable development concepts.
STEM Education

The Iowa City Community School District Curriculum embraces environmental and sustainability education at all levels and across all disciplines. Our science classes address environmental issues throughout the elementary years starting as early as Kindergarten when they learn through experimentation that plants and animals can change their environment and that living things need air, water, and resources from the land. They also learn that humans need natural resources for everything they do. During this year, the students help plant a tree which they watch and nurture during their years in that elementary school. In subsequent years, the elementary students learn how humans affect the Earth by exploring our role in changing climate and what happens when we pollute the water and air. They also learn about how humans change the landforms. Students discover where we get our energy from and which sources are renewable. All of this learning is problem based and encourages the students to think about how they can change the Earth to make it better. Perhaps the most exciting part of our elementary environmental curriculum is that each and every 6th grader in the district gets to partake in a weeklong “School of the Wild.” During this time, students learn about the environment first hand by attending this outdoor “classroom” that has prairie, lakes, and forests. Students work with environmentalists and their teachers to experience how our local landscape has changed over time, how humans affect this environment and how students can help protect the environment for future generations.

Our environmental education continues in the secondary level where we fully embrace the Next Generation Science Standards. One of the most exciting things we do is in our Earth and Space Science course (a required course of all students). A portion of this course is completely dedicated to learning about sustainability and how our actions impact the earth. Our teachers work on a STEM Innovator project through the University of Iowa. This project helps students build essential STEM college and workforce ready skills by learning to collaborate and be critical and creative thinkers while they work with community partners to study and suggest changes that could improve Iowa City’s environment. This project based learning experience culminates in the creation of a portfolio that the students pitch to professors at the University of Iowa.

At the secondary level, we are proud to offer Advanced Placement Environmental Science which fully covers Environmental and Sustainability Education. This course is for students who want to dive deeper into environmental issues. This class uses our district resources such as our prairies and local environments for hands-on lab experiences.

In addition to our STEM courses, ICCSD covers the effects of humans on the Earth and the environment and how this impacts the economy and politics in our social studies curriculum. These topics are first covered during Global Studies (a required 7th grade course) and then are revisited when students take AP Human Geography. AP Human Geography also covers a broader range of topics such as how cities and agriculture affect the environment and how human migration continually changes the Earth. Students in world languages learn environmental vocabulary and then discover how other parts of the world deal with environmental issues. Finally, many of our students in our language arts classes, when offered the choice, chose to read books and do research projects on environmental issues.
Outdoor Learning Spaces

Universally Designed Playgrounds

ICCSD believes playgrounds are extensions of its classrooms in the form of physical development, self-regulation and socialization. The district accomplishes this by Board approved Universally Design Playgrounds. ICCSD playground are designed so students of all ability levels can utilize the playground. The district strives to install equipment that improves physical development, areas of socialization and cooperative play. A mix of ADA upgrades likes ramps, rubber fall zones, and transfer stations, along with elements that provide tactile, auditory, and visual experiences for students.

Hardsurface activities are included such alphabets, numbers, memory games, action path with command words, solo, as well as team-based games. Schools also provide activities such as stackable blocks, art supplies, hoops, balls, trikes, chalk, etc. Action paths promote various physical developmental skills such as; hopping, skipping, tiptoe, running, sprinting. The same paths are typically connected to a larger circuit that of functionally linked playground components more commonly known as “Ninja courses” that cater to older students. Some of these ninja courses and Action paths include a basic timer system that are utilized in gym classes.

Outdoor classrooms act as extensions to playgrounds. They offer quiet spaces for activities such as drawing, coloring, chess, checkers, general socialization. Some schools currently have natural playscapes with stumps and wood biscuits to stack, pull apart, look for insects, etc.

Nearly all playgrounds offer some level of music instruments. The district goal is to continue to incorporate outdoor instruments within both playgrounds and Outdoor Classrooms.
Outdoor Classroom

ICCSD embraces the knowledge that outdoor student activities benefits the health and wellness of it’s students by providing Outdoor Classroom areas. ICCSD has a variety of formal and in formal outdoor classroom spaces. Currently ICCSD is utilizing FMP 2.0 funding to create formal Outdoor Classrooms at every school. This is a phased initiative meaning Outdoor Classrooms are at varying stages of completion. The goal is to enable additional educational opportunities beyond typical science-based activities.

Some of the components found in ICCSD classrooms are list below:

**Existing components:**

- Tree, ornamental, and vegetable planting space
- Prairie areas
- Wetland areas
- Forested areas
- Pollinator gardens
- Picnic spaces
- Gazebos
- Raised ADA Accessible planters
- Formal reading trees
- Reading stumps/logs to support classroom activities
- ADA accessible routes
- Garden composting
- Rainwater collection
- Action word paths on playgrounds
- Sensory games on playgrounds
- Functionally linked playgrounds “Ninja courses” with timers
- Hard surface memory building activities
- Amphitheater setting
- Beneficial insect hotels
- Fruit trees
- Universally designed playgrounds

**Health and Wellness projects currently being implemented:**

- Tactile plants and panels
- Human sundials and compasses
- Art tables
- Sensory tables
- See through art/whiteboards
- Musical instruments
- Natural play space with stumps and rocks
Summary

ICCSD consists of 29 schools located in 5 different cities. The student population consists of over 14,000 students with students from 82 different countries. In Iowa City Schools, 75 different native languages are spoken by students and staff.

ICCSD has taken a systemic approach to ghg reduction. ICCSD School Board adopted a District Resolution to Address Climate Change in 2019. The Board resolution established a 45% reduction in ghg by 2030 and net zero by 2050. ICCSD began working with a consulting firm to inventory ghg emissions annually and develop long-term strategies for the reduction of ghg. ICCSD recently completed FMP 1.0 and commenced work on FMP 2.0 that incorporates ghg reduction strategies. ICCSD’s 2030 emissions target was achieved in 2021 due to FMP 1.0 projects and an increase in MidAmerican Energy’s conversion to renewable energy.

Geothermal systems were identified as a method to reduce ghg and increase cost savings for the district. Currently 25 of the 29 ICCSD school operates on geothermal systems. These systems use a food grade glycol mixture with 25%-30% glycol. Nearly all the 25 school geothermal systems provide heating for 100% of the building.

Electrification of HVAC and appliances is another big step the district has taken to reduce ghg emissions. During FMP 1.0 the district has started the conversion of appliances, water heaters and HVAC to electrical system. Moving away from typical gas-powered units. The district currently features 2 fully electric production kitchens, and 4 partially electric production kitchens. During FMP 1.0 numerous gas boilers were removed in favor of electrical systems. The strategic plan to convert to electrical is in line with local power companies and their efforts to change the power grid to 100% renewable.

ICCSD features a wealth of student driven activities and initiatives. Student sustainability clubs are heavily involved in streamlined recycling and cafeteria composting. Garden clubs manage vegetable gardens, prairie spaces, and ornamental beds to further their education and experiences.

ICCSD has a extension IPM policy and program that has gained recognition by industry peers and professional. The ICCSD IPM Program governed by a board policy and is facilitated by a District IPM Coordinator. Since the adaption of the IPM program, the district has been able to reduce indoor pesticide liquid spray application from monthly at each school to zero over the last 5 years. Pest infestation that requires pesticide are done so with gel bait applications behind baseboards in hard-to-reach locations. During the 21/22 school year the Facilities Dept. received 173 indoor pest complaints. Only 14 of the complaints required pesticides to mitigate the indoor pest infestation. ICCSD grounds are over 70% pesticide free with all elementary turf areas being 100% pesticide free.