



School Nominee Presentation Form

ELIGIBILITY CERTIFICATIONS

School and District's Certifications

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

1. The school has some configuration that includes grades Pre-K-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 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 2015-2018

Public Charter Title I Magnet Private Independent Rural

Name of Principal: Mr. George Boser

Official School Name: Sedalia Elementary School

Official School Name Mailing Address: 5449 N. Huxtable Street, Sedalia, CO 80135

County: Douglas State School Code Number: 7718

Telephone: (303) 387-5500 Fax: (303) 387-5501

Web site/URL: <https://sites.google.com/a/dcsdk12.org/sedalia-elementary-school> E-mail: info_sede@dcsdk12.org

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

Date: 01/20/17

(Principal's Signature)

Name of Superintendent: Ms. Erin Kane

District Name: Douglas County School District



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

[Handwritten Signature]

Date: 01/19/17

(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: Colorado Department of Education

Name of Nominating Authority: Katy Anthes, Ph.D.

(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.

[Handwritten Signature]

Date: 01/23/17

(Nominating Authority's Signature)

SUMMARY AND DOCUMENTATION OF NOMINEE'S ACHIEVEMENTS

Provide a coherent summary that describes how your school is representative of your jurisdiction's highest achieving green school efforts. Summarize your strengths and accomplishments in all three Pillars. Then, include concrete examples for work in every Pillar and Element. Only schools that document progress in every Pillar and Element can be considered for this award.

SUBMISSION

The nomination package, including the signed certifications and documentation of evaluation in the three Pillars should be converted to a PDF file and emailed to green.ribbon.schools@ed.gov according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509

Expiration Date: March 31, 2018

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.

U.S. Department of Education Green Ribbon Schools Award

Sedalia Elementary School, Douglas County School District, Colorado

Sustainability is the culture at Sedalia Elementary. Sedalia has a close-knit family feel, where we continuously work to reduce our impact on the environment, improve health and wellness, and provide all students with effective environmental and sustainability education. Our efforts have earned the school the Eco-Schools USA Green Flag Award in 2014. This was a memorable day for students, staff and parents. As a rural Title I school in an old building serving a student population with a 53% free and reduced lunch rate, Sedalia regularly overcomes significant challenges to being green. The impact on students has changed the way the school community thinks, which continues long after students 'graduate' from Sedalia as they work to green their middle schools, high schools and live more sustainably at home.

PILLAR I: Reduced Environmental Impact and Costs

Sedalia's waste reduction program is thriving. Students K-6 follow a highly effective recycling program, divert food waste from the cafeteria to chicken coops, composting and vermicomposting. Students know the recipe for compost and claim "it is like magic watching it turn into food for our plants". We have reuse centers throughout the school to put "hard to recycle" items to innovative use. Students and staff constantly try to find ways to reduce energy consumption by expanding recycling to include soft plastics, used markers and batteries. Kids and parents were fascinated with the games students built from these saved items to build our own Sedalia Arcade (Caine's arcade) and sustainable car derby at our Sedalia Carnival. The school grounds are 75% dedicated to ecologically friendly and regionally appropriate use. The playing field is artificial turf and the playground has recycled tires for play mulch. Most of the remaining landscaping around the school is rock, leaving a small amount of irrigated turf on the property.

All of our gardens are fully accessible, so all students can enjoy them. The student-led garden team grow vegetables, herbs, and even fruit trees using *hugelkultur* gardening, which uses a limited amount of water. Our pollinator garden contributes to biodiversity and students love seeing the variety of pollinators and enjoy the beauty of the flowers. They are thrilled when they get to pick the seeds and spread them for next year. Additionally, multiple outdoor learning spaces are used regularly to ensure students learn in nature, including a chicken coop that students frequently visit during class and for fun rewards. Having animals at school improves mental health, creates compassion, relaxation and responsibility.

Despite the challenges of reducing energy in an aging building with large expansions and few upgrades, Sedalia has reduced our waste, consumption, and carbon footprint substantially over the years. Sedalia has managed to cut energy use by 6%, largely by student-initiated efforts. Solar Tubes and recycling bins are used in every classroom. Classrooms participate in an energy reduction incentive program, led by 5th and 6th graders. Classroom rewards were given at various levels when students turned off docking stations for iPads and Chromebooks and kept lights off in each classroom. Last year a 5th grader led a bake sale to raise money for solar chargers for small electronic to help reduce energy usage. The bake sale raised \$400, which helped purchase four solar chargers for the school. Her plan for this year is to have a solar charger in every classroom.

PILLAR II: Improved Health and Wellness

Health and wellness are taught alongside sustainability. With a healthy schools coordinator, Sedalia addresses health and wellness through a wide-range of programming across grades. Most striking is the amount of outdoor time each

student receives: on average about 125 minutes per week! There are many ways students are engaged in physical activity and education, including innovative programs such as a Gaga Pit and Nine Square in the Air, working in the garden, playing with the chickens, and wide open spaces. Students collaborated to create a sensory board made entirely of pallets and reused materials for students with special needs. This wall is used every day and has helped students get back on track when they need a mental break. A 6th grader wanted to expand access to physical activity to students because her research showed that 50% of kids do not get enough exercise; she now leads a weekly exercise after-school program. She is also working on a “no idle zone” for the parking lot and helps remind students and teachers to not reward with junk food. The impact this student has made shows how many students are engaged in health and wellness efforts.

PILLAR III: Effective Environmental and Sustainability Education

The foundation of Sedalia’s culture of sustainability lies in a Sustainability Special, which provides environmental education to each student in every grade. Through this class, students engage in project-based learning addressing sustainability pathways such as waste and consumption, energy conservation, sustainable food, and health and wellness. Before this special, students had no idea that they could make a career out of sustainability or that they can create projects revolving around Sustainability that can be life changing. This year, students are participating in the Global Learning to Benefit the Environment (GLOBE) program as Citizen Environmental Scientists uploading data from field investigations to be used by NASA, NSF, NOAA, and other U.S. federal agencies. In addition, Sedalia students have been a part of the “Create Something Great” expo in our district to highlight the work they have done around sustainability.

School Demographics					
Grade Level		School Type		School Setting	
Elementary (K-6)		Public		Rural	
Is your school in one of the largest 50 districts in the nation?					No
Does your school serve 40% or more students from disadvantaged households?					Yes
% Receiving Free and Reduced Price Lunch:		53%	% Limited English Proficient:		20%
School Enrollment/Graduation/Attendance					
Total Enrolled:	300	Graduation Rate:	N/A	Attendance Rate:	94.54%
Is your school participating in a local, state, or national school program, such as EPA ENERGY STAR Portfolio Manager, Eco-Schools, Project Learning Tree, or others, which asks you to benchmark progress in some fashion in any or all of the Pillars?					
Yes	Program(s) and level(s) achieved:		Achieved Green Flag through Eco-Schools USA.		
Has your school received any awards for facilities, health, or environment?					
Yes	Award(s) and year(s):		DCSD Sustainability Incentive Award 2015 and 2016, USAgain textile recycling award 2014 and 2015, Eco-Schools USA Green Flag Award 2014		

Pillar I: Reduced Environmental Impact and Costs

Element IA: Reduced or Eliminated Greenhouse Gas Emissions

- 1. Has your school reduced its total non-transportation energy use from an initial baseline? Yes**
Current Energy Usage (kBTU/student/year): 11,807
Current Energy Usage (kBTU/sq. ft./year): 89.69
Percentage Reduction: 5%, from July 2006 - June 2016
How did you document this reduction? Utility bill tracking software called Energy Center.
- 2. What percentage of your school's energy is obtained from:**
On-site Renewable Energy Generation: 0% Type: N/A
Purchased Renewable Energy: 0% Type: N/A
- 3. Can your school demonstrate a reduction in Greenhouse Gas emissions? Yes**
Percentage Reduction: 11%, from 7/2015 - 6/2016
Initial GHG Emissions Rate (MT eCO₂/Person): 1.0
Final GHG Emissions Rate (MT eCO₂/Person): 0.89
How did you calculate the reduction? Determined MT eCO₂/person using Energy Center conversion of our energy usage into CO₂ emissions. Then, we divided the MT eCO₂ by 348 occupants.
- 4. Do you track resource use in EPA ENERGY STAR Portfolio Manager? Yes**
If yes, what is your score? 39
In what year was your school originally constructed? 1952 (originally built) - 1998
What is the total building area of your school? 35,177
Has your school constructed or renovated portion(s) of the building in the past 10 years? No
- 5. Does your school have a plan in place to manage and reduce energy use, such as an energy master plan, an energy conservation plan, an energy charter, an energy action plan, or energy conservation guidelines?**
Sedalia has an energy conservation plan for individual classrooms, including eliminating energy vampires, using solar tube lighting, turning off iPad/Chromebook charging stations and fixing vestibule heaters at entrances. The district is in the process of developing a Sustainability Management Plan (SMP) to develop a vision and goals district-wide. Sedalia is part of the SMP through the Teacher Steering Committee that focuses on environmental education and the training of teachers in the field of sustainability. The SMP is composed of around 30 people across the district and includes departments such as Grounds, Custodial, Electrical, Maintenance, Life Safety, Environmental Health, Planning and Construction, Transportation, Nutrition Services, Professional Development, World Class Education, Strategic Sourcing, Information Technology and more. The purpose of the SMP is to develop a five-year sustainability strategic plan that will be adopted by our board of education and senior leadership. This plan will address environmental impact, social development and economic prosperity in schools, including Sedalia, across the district.
- 6. Are there any other actions your school has taken (not covered above) to support Element IA that should be considered? Please describe below.**
Being part of a district that has not passed a bond or mill levy in the past 10 years has posed challenges to schools like Sedalia. Our original building was built in 1958 and since then has had three other additions to the original building to accommodate increased enrollment. Because of the age of the building, building materials,

appliances, HVAC systems, windows, doors, and so forth are not energy efficient; hence the low Energy STAR rating. Many of our HVAC systems are old and our district is helping improve those systems over time. As a result, the energy reductions we have seen come primarily from behavior management. Last summer our school installed new HVAC systems that are more energy efficient.

Element IB: Improved Water Quality, Efficiency, and Conservation

7. Can school demonstrate a reduction in its total water consumption from an initial baseline? No

Average Baseline Water Use (gallons per occupant): 3,165

Current Water Use (gallons per occupant): 3,562

Reduction in Domestic Water Use: +13%

Percentage Reduction in Irrigation Water Use: *See note below.

Time Period Measured (MM/YYYY – MM/YYYY): July 2006 - June 2016

How did you document this reduction? Utility bill tracking software, Energy Center.

Justification of water usage: *Irrigation and domestic water at Sedalia is connected to the same meter.

Therefore, we do not know how much water is being used specifically for irrigation. Also, this would likely explain the large increase in water use as Colorado has and still is experiencing drought, which results in increased irrigation. However, irrigation systems throughout the district are automated to ensure precipitation and evapotranspiration rates are considered in order to be as efficient as possible. Additionally, there was a malfunction in our irrigation system this year and the system ran continuously for three days before the school became aware. We have been assured it will not happen again.

8. Our school's drinking water comes from: Municipal Water Source

9. Describe alternate water sources used for irrigation, if possible.

While we don't use alternate water sources for irrigation, the district's irrigation system utilizes on-site rain volume monitors to ensure appropriate levels of irrigation at Sedalia. Monthly maintenance checks of closed systems verify integrity and reduce potential leaks or system losses. We collect rainwater for the chicken coop.

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

Impermeable surfaces are limited to basic needs such as parking lot, sidewalks and hard surfaces for outdoor recreation. Run-off from impermeable surfaces is directed towards landscaping first to filter particulates before going into storm drains. The lower surfaces that water collects we have planted trees to utilize the run off.

11. Describe your water conserving fixtures and or appliances (e.g., waterless urinals, dual flush toilets)

Each classroom has a sink and we have one drinking fountain and one water bottle filler/drinking fountain combo. Students use the water bottle filler and the sinks in their classrooms instead of the drinking fountain. In return, this saves the water usage.

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

It is a closed system that brings water from municipal sources, which prohibits outside contamination.

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

Sedalia's drinking water is provided through the municipal jurisdiction (Sedalia Water & Sanitation District). These jurisdictions must meet all state and federal codes and regulations regarding safe drinking water, including mitigating lead.

14. What percentage of the school grounds are ecologically beneficial, water-efficient, and/or regionally appropriate (e.g., school garden, xeriscaping, etc.)?

About 75% of the landscaping at Sedalia meets these standards. Our landscape includes xeriscaping with rocks, blacktop play area and parking lot, turf field, *hugelkultur* garden, a timer soaker system on the hoop house garden and pollinating garden, and large open spaces with native plant growth.

15. Are there any other actions your school has taken (not covered above) to support Element IB that should be considered? Please describe below.

Over the past few years, students have transformed unused outdoor spaces into usable spaces for students to learn, grow plants, and support creatures in their natural habitat. Students have constructed vertical gardens out of re-used pallets, planted a pollinator garden, created spaces for outdoor learning and transformed an unused space into hoop houses in order to lengthen our growing season. All of our fruit trees were planted with *hugelkultur* and need very little water.

Element IC: Reduced Waste Production

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

A: Monthly Garbage Service in Weight: 23 lbs./day X 18 days = 414 pounds

B: Monthly Recycling Volume in Weight: 11 lbs./day X 18 days = 198 pounds

C: Monthly Compostable Materials Volume(s) in Weight: 16 lbs./day X 18 days = 288 pounds

D: Chicken Feed = 27 lbs./day X 18 days = 486 pounds

Recycling Rate = ((B + C + D) ÷ (A + B + C + D) x 100) = 70%

Monthly Waste Generated per Person = (A/# of Students and Staff) = 1.2 pounds

17. What percentage of your school's total office/classroom paper content is post-consumer material, fiber from forests certified as responsibly managed, and/or chlorine-free? 80%

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

Flammable Liquids: N/A

Corrosive Liquids: N/A

Toxics: N/A

Mercury: Usage of low mercury fluorescent lighting

How is this measured? Measured replacement/disposal quantities

19. How is hazardous waste disposal tracked?

Cradle-to-grave tracking of all hazardous waste utilizing a certified contractor. The contractor picks up hazardous waste as requested from across 86 sites in the district, including Sedalia, and tracks how much they pick-up and/or dispose on our behalf.

20. Describe other measures to reduce solid waste and eliminate hazardous waste, including e-waste.

Eliminating hazardous waste starts with eliminating/reducing the process that produces the hazardous waste in the first place. Finding greener alternatives to meet the same end goal is pivotal to eliminating these processes. At Sedalia, the main hazardous wastes are light bulbs. We dispose of these bulbs with a certified contractor, Conserve-a-Watt, which is the lighting provider. Douglas County School District does its best to dispose of all e-waste as responsibly as possible. E-waste, and how we dispose of or recycle it is as follows:

- Computers: All district computers that are still functional enough for use are re-imaged and repurposed for district use. All other computers are sent to a private company, who wipes the hard drives and then either resells them or salvages their usable parts. (The district in turn gets a small percentage of the proceeds from them.)
- Toner: All empty toners are picked up for recycling/re-use by our toner vendor.
- Batteries: All batteries, button cell to automotive, are picked up by an electrical supply vendors for recycling.
- All other electronic devices: Printers, projectors, audio equipment, televisions, Smartboards, and so forth are donated to Goodwill at no charge for pickup. Items that are still in working order or easily repaired are re-sold, non-working items are salvaged for parts. There is a \$45 charge for recycling.

21. Which green cleaning custodial standard is used?

The majority (80%) of the cleaning products we use are Green Seal Certified, such as the glass cleaner, all-purpose cleaner, acid (restroom) cleaner, floor cleaner, and soap. Disinfectants are not GSC (not available), as well as most carpet cleaners.

22. Are there any other actions your school has taken (not covered above) to support Element IC that should be considered? Please describe below.

Most of our paper products (c-folds, roll towels, toilet paper) are made from 100% post-consumer recycled content. We also purchase some roll towels and toilet paper from Georgia Pacific, toilet paper which is Green Seal Certified, and a roll towel which is not GSC but does carry EcoLogo (which is a Canadian standard whose requirements are slightly different than GSC). The lunchroom staff are now purchasing composting bowls and have drastically reduced the amount of other plastic material in the cafeteria. Sedalia also participates in USAgain, a textile recycling program. In 2016, the school diverted 2,813 pounds of textiles from the landfill and 3,426 pounds the previous year. Students also participate in Crayola's ColorCycle program.

Element ID: Use of Alternative Transportation

23. What percentage of your students walk, bike, bus, or carpool (2 + students in the car) to/from school? 98%

How is this data calculated? Due to our rural location, 98% of our students are bused to school. We track this by counting the number of students who use bus passes. Our school district provides Safe Routes to School as an option for the 2% who live close enough to walk. Given the rural nature of our school, bussing students to school is good since it's a form of carpooling.

24. Has your school implemented?

Designated carpool parking stalls.

A well-publicized "no idling" policy that applies to all vehicles (including school buses).

Vehicle loading/unloading areas are at least 25 feet from building air intakes, doors, and windows.

Safe Pedestrian Routes to school or Safe Routes to School.

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

As a rural school, the majority of students ride the bus. We are developing a formalized “no idle zone” in front of the school, even though buses and some cars have been following this as a best practice. The school district has a “no idling” policy for yellow and white fleet drivers (vehicles such as maintenance, grounds, etc.). Bus drivers reduced idling by 9% in 2015-2016.

26. Are there any other actions your school has taken (not covered above) to support Element ID that should be considered (e.g., alternative fuel buses, or other creative ways of promoting alternative transportation)?

Our school district recently purchased three compressed natural gas-powered school buses for a pilot program. They will be used for activities and some routes, so Sedalia may be able to utilize these alternative fuel vehicles for field trips and activities this upcoming year.

Pillar II: Improved Health and Wellness

Element IIA: Integrated School Environmental Health Program

1. Provide details on your school’s Integrated Pest Management (IPM) program including year of implementation, program responsibility/oversight, pest monitoring process, record keeping, pesticide use strategy, and notification practices (if required).

The school district launched IPM in summer 2015. The Environmental Health Manager and the building engineer collaborate on pest issues to determine best course of action starting with the lowest risk strategies to reduce or eliminate the pest issue prior to moving onto chemical application tactics. Sedalia’s building engineer is trained to address issues first with IPM strategies such as exclusion or pest habitat removal/relocation. If necessary, all application of pesticides are accomplished by a vetted outside IPM contractor, eliminating the need for storage of chemicals at the school or inappropriate applications. Prior to pesticide usage, building leadership is brought in to understand the health and safety implications. All applications are done outside of school hours to eliminate exposure to individuals.

2. Describe your efforts to reduce reliance on pesticides, and provide data on volume reductions over time, if available.

We do not use pesticides at the school level. The application of pesticides is secondary to other strategies or tactics, determined at the district level. If and when pesticides are used, specific pest targeted products are used as opposed to broad spectrum applications. In addition, we use preventative measures in our gardens and chicken coops to avoid using chemicals. For example: water is not left standing in containers; herbs from the garden keep nesting boxes fresh; ladybugs and praying mantis insects are used to help rid of unwanted bugs; kids are educated to leave frogs and garter snakes alone because they help with unwanted pests; rooftop gutters are regularly cleaned out; classrooms keep snacks in closed Tupperware; and the school building is regularly inspected for wasps.

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

X Our school prohibits smoking on campus and in public school buses.

X Our school has identified and properly removed sources of elemental mercury and prohibits its purchase and use in the school.

Other than fluorescent lighting, all other sources of elemental mercury have been removed.

X Our school uses fuel burning appliances and has taken steps to protect occupants from carbon monoxide (CO).

Every room containing a fuel burning appliance contains a maintained carbon monoxide detector.

X Our school has tested all frequently occupied rooms at or below ground level for radon gas and has fixed and retested all rooms with levels that tested at or above 4 pCi/L, OR our school was built with radon resistant construction features and tested to confirm levels below 4 pCi/L.

Every room, regardless of quantity of occupied time, is radon tested. If levels appear to above the standard 4.0 pCi/L, the space is mitigated and retested until all spaces are below the standard.

X Our school has identified any wood playground or other structures that contain chromate copper arsenate and has taken steps to eliminate exposure.

We do not have any wooden playground equipment. All district playground equipment is metal and has been replaced within the last 15 years.

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

Sedalia is an elementary school so scientific chemicals are limited to minute amounts found in pre-built scientific kits such as FOSS. The majority of scientific principles that are taught and utilized at the elementary level utilizes kitchen chemistry using products bought over the counter at a grocery store. This practice eliminates the need to store hazardous materials on site. Any custodial cleaners used, are kept behind locked doors.

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

Constant awareness of students' triggers is paramount to avoiding interference with day-to-day learning. Triggers such as plants, animals, and chemical usage are heavily monitored and constantly controlled. If a student is identified as having sensitivities to any known allergen, the health and safety of that student trumps the benefit of having that animal, plant, or chemical present. Proactive steps are taken to either eliminate that trigger or provide the student with an alternative. The Environmental Health Manager is responsive to within 72 hours to the school to evaluate, sample, identify, and mitigate found issues.

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

Douglas County School District, through its Environmental Health Department, responds and reacts immediately to mitigate/ eliminate any fluid source in the building. This quick reaction to water cleanup issues eliminates the potential for mold growth. The district employs and certifies several mold mitigation technicians able to quickly, safely and effectively mitigate any mold issue that arises. If the work is beyond the capabilities of the internal crew, the school district contracts with several outside contractors to provide water/mold mitigation services. To date, Sedalia has been mold free.

7. Describe whether your school has taken steps to protect indoor environmental quality. Provide specific examples of actions taken for each checked practice. Check all that apply.

X Our school has installed local exhaust systems for major airborne contaminant sources.

Local exhaust systems are present in the art room, boiler room and the kitchen, separating these exhaust sources from the mainstream HVAC exhaust for the rest of the building.

X Our school inspects and maintains the building's ventilation system and all unit ventilators to ensure they are clean and operating properly.

We do preventive maintenance on the equipment every six months with our trained in-house HVAC team. Each piece of equipment has a task list, including checking, cleaning, lubing, and filter changes.

X Our school ensures that all classrooms and other spaces are adequately ventilated with outside air, consistent with state or local codes, or national ventilation standards.

All buildings comply with local codes and meet ASHRAE's guidelines. Outside ventilation is based on the control program for the building. We have reading sensors that continually monitor the carbon dioxide levels and adjust the ventilation accordingly.

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

The school district does not utilize specifically the Tools for Schools program, but does implement common strategies that align with this program. The Environmental Health Manager (EHM) collaborates with the Building Engineer to be hyper-aware of potential Indoor Air Quality issues and triggers. The EHM acts as the single point of contact for indoor air quality concerns, allowing the Building Engineer to collect all concerns and elevate them as needed. This ensures that a proper investigation can take place to allow every concern to be addressed. If Sedalia has an issue that pose immediate health concerns such as noxious fumes, we are responded to quickly.

Element IIB: Health and Wellness

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

X Our school participates in a Farm-to-School program, or strives to provide local, fresh food.

Nutritional services uses local foods whenever possible when it meets their standard. We participate in Colorado Proud day every year, celebrating our local agriculture.

X Our school has an on-site food garden.

We have an organic *hugelkultur* garden, where students plant and create their own organic compost. Additionally, our special needs class starts corn for our garden every year.

X Our school garden supplies food for our students in the cafeteria, a cooking or garden class, or to the community.

Our students get to taste what they grow in our Sustainability Special. Community members give monetary donations for produce and chicken eggs, which in turn continue to fund our garden. When harvest is plentiful, we

have a section allotted for that produce in the cafeteria in the harvest bar. On Wednesdays, students host the Garden Stand. Families make donations in exchange for produce.

X *Students spent at least 120 minutes/week in the past year in school-supervised physical activity.*

Students on average receive 125 minutes each of physical activity per week! Activities include: recess, chicken interaction, compost/garden time, physical education, capture the flag, team games, Gaga Ball pit, 9 Square in the Air and building projects for Sustainability class. Some teachers use GoNoodle program and other types of body movement for brain breaks in their rooms. Recess is held outside unless the temperature is below 20° or there is lightning. It is recommended for students to have access to the gym for indoor games or Go Noodle.

X *At least 50% of our students' annual physical education takes place outdoors.*

Our PE teacher and Team Games teacher holds class outside as much as the weather will allow. Team games focus on social/emotional wellness and are assessed weekly. The Sustainability Special uses the “outdoor classroom” as much as possible with building gardens, tending to gardens, taking care of chickens, community cleanup, building projects and collecting GLOBE data.

X *Health measures are integrated into assessments.*

Actual assessments for physical activity and health are conducted by our PE Teacher. The students receive pacer tests that record their cardiovascular endurance and strength. Informal assessments are also measured by day-to-day activities. Students are encouraged daily to stay active in school and at home. We see students making better daily choices on food, snacks and understanding nutrients.

At least 50% of our students have participated in the EPA's Sunwise (or equivalent program that promotes sun safety).

While Sedalia does not participate in this particular program, teachers encourage students to wear sunscreen whenever needed, including field trips and recess. We also do not have a restrictive hat policy, and students are allowed to wear hats outside on sunny days. The school also has a shade pavilion, measuring 20' x 30', with eight picnic tables.

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

Sedalia has standard playground equipment, outdoor grass and turf fields used for soccer, football, baseball, kickball, basketball and PE. We added 9 Square in the Air (built by students) and a Gaga Ball pit (made from recycled materials). Students have the opportunity to join an after-school program every Wednesday that promotes a healthy lifestyle and exercise, which was created by a 6th grader. This program started with 20 students and has increased to 30 5th and 6th graders. They participate in organized active team games, voting on games to play for that hour. This program was designed for students that cannot pay to play sports and to increase exercise. This program will continue as she collaboratively passes the leadership responsibility on to a 5th grade student for next year. Our 6th graders attend Outdoor Ed in October. This is a two-night, three-day educational trip to a mountain outdoor facility that focuses on trust, team building and collaboration between students. This experience is one that every student will never forget. They have many activities that some kids may never get to try, such as canoeing, stargazing, climbing walls, archery, hiking, and outdoor survival.

10. Are there any other actions your school has taken (not covered above) to support Element IIB that should be considered? Please describe below.

A Sedalia mother says the school's garden is behind a remarkable turnaround in her health. Jannessa and her family volunteered in Sedalia's garden over this past summer. She was teetering on the edge of becoming a diabetic. Focusing on eating healthy, she also got more active and started to lose weight; 103 pounds so far. "Having my daughter put her arms completely around me, has been a big wow. It has been a very big life changer," Jannessa said. Read the full story here: <https://www.dcsdk12.org/sustainability/school-garden-gives-sedalia-family-a-%E2%80%9Cboost%E2%80%9D-to-health>

Element IIC: Coordinated School Health, Mental Health, School Climate, and Safety

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

Our Healthy Schools Coordinator provides our staff weekly THINK news blurbs, encourages healthy eating and exercise, and provides ideas for brain breaks in classrooms. We have other staff who help run Biggest Loser, walking contests and weekly yoga classes. We have a part-time school nurse who manages students' health plans, trains staff on medical and health issues, provides preventative maintenance, communicates with families, provides resources for staff and families, and oversees regular hearing/vision screening. Our part-time counselor and part-time school psychologist support staff in behavioral training, provide whole-class lessons, and individual student support. They have created a relaxation/meditation program for staff to learn how to relieve stress. In addition, they developed and support a Home Base program for students that have difficulty maintaining a full day. We also have a school-based health center.

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

We implement the Clare Davis Act 15.213 and Standard Response Protocol to ensure safety. Safety e-mails directed toward staff and school community are sent monthly. Local churches donate food for families in need and a dentist comes in twice a year for free exams. The Fire Department conducts an assembly and talks to students about fire safety. Douglas County Sheriff's Department regularly performs courtesy security checks and interacts with students. A local church helped build the compost bin and shed, and moved landscape materials for our new gardens. Eagle Scouts built one of our chicken coops and paper storage area in Sedalia's workroom.

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

We implement a variety of programs to address mental health and school climate, including PBIS, Hero of the Week, Class of the Week for specials, HERO (Honesty, Effort, Respect, Optimism) Focus of the Week, Student Wellness Prevention Framework, Whole Class Social/Emotional Learning curriculums, Restorative Practices, Refocus forms, Check in/Check out, Behavior Plans, Targeted Group and individualized interventions, Social Thinking, Zones of Regulation, SuperFlex, Brainwise, Strong Kids, Incredible Flexible You, Second Step, Home Base Program, Mindfulness and I luv you guys SRP (Standard Response Protocol). Teachers receive professional development, implement and coach students in using the aforementioned strategies. This effort allows students to take ownership of their mental health both in and out of the school. HERO programs are reinforced everyday via student morning announcements, school goals and classroom goals. Zones of regulation are individualized and students can self-analyze. Students are taught to assess and regulate their own behavior using these strategies. Students lead and guide other students by creating HERO behavior iMovies to express the importance of Honor, Effort, Respect and Optimism. Our intermediate students create iMovies for the primary groups to show positive behaviors along with our HERO matrix to ensure

every student's safety and wellbeing. PBIS also teaches staff to use common language between teachers and students to ensure more impact on students for all grade levels.

Pillar III: Effective Environmental and Sustainability Education

Element IIIA: Interdisciplinary Learning About the Key Relationships between Dynamic Environmental, Energy, and Human Systems

1. Which policies does your school employ to help ensure effective, place-based, environmental and sustainability education? Check all that apply.

A written definition of environmental literacy and/or a definition of environmental learning outcomes including knowledge, skills, positive attitudes, and civic responsibility.

The Sustainability Education at our school is based on four pathways and outcomes:

- 1.) Sustainable Food- learning how to provide food for ourselves with gardening and chickens, and eating healthy;
- 2.) Health and Wellness - exercising regularly;
- 3.) Consumption and Waste - learning how to recycle, sort, and reduce waste;
- 4.) Energy - reducing our carbon footprint and lowering our water and energy bills at the school.

These outcomes are taught across all grades with age-appropriate curriculum. Additionally, we promote environmental and sustainability through intentional, student-led actions across the whole school. Students and staff divert trash from the landfill by recycling, feeding organic waste to our chickens and composting. Students collect data for our waste diversion on a daily basis to ensure we are on track. Students are responsible for helping our school reduce the energy used throughout the building by using our solar tubes for lights and keeping their energy vampires unplugged or turned off. Students know how to recycle in their lunchroom, classroom, and at home. They take ownership of their daily responsibilities: taking care of chickens, compost, garden, energy and recycling. Students educate other classmates about our pathways, knowledge, goals and skills, to ensure sustainability outcomes.

A set of policies to promote environmental education and sustainability.

We are currently using and will formalize policies in early 2017. All students learn and apply these policies daily.

Following are just some examples:

- "Every room MUST use solar tube lights and recycle bins"
- "We do not DUMP our lunch trays, we SORT our lunch trays in the correct bin"
- "Recycle - Turn it into something NEW!"
- "STOP! Think before you throw"
- "We don't sit at recess we PLAY at recess!"

This is well-known verbiage at our school. By establishing common language or "norms" across our school, students' habitual behavior and mindset has been built across the school community.

An environmental or sustainability literacy requirement.

Every student is required to take Sustainability as a special. Each grade is cycled through this special several times in a school year. As a result, students have a foundational knowledge of environmental issues, especially as they

apply in their school setting. They practice and apply these principles through project-based learning and design thinking. Students create personal projects that better themselves, people around them, and their community.

2. Which academic programs does your school employ to help ensure effective, place-based, environmental and sustainability education? Check all that apply. Provide specific examples of actions taken for each checked practice, highlighting innovative or unique practices and partnerships.

X *An academic program that integrates environmental and sustainability concepts, including a garden program, across the curriculum in multiple subjects and/or grades.*

Our school has a class every afternoon for K-6 that combines hands-on learning with employing sustainability concepts. All students learn about staying healthy, *hugelkultur* gardening, chickens, compost, recycling, reducing electricity, building habitats for insects and animals, water cycles, global awareness, the environment (clouds, soil, air temperature, etc.), renewable resources and consuming fewer resources. Sedalia strives to teach these concepts across grades to all students. For example, our school district vision therapist is producing a sensory book that consists of herbs, plants and flowers from our gardens to extend learning at home for a significant needs student.

X *A way to assess student environmental and sustainability learning and achievement.*

We assess student learning and achievement in three ways - pre/post evaluations in the Sustainability Special, homeroom application, and schoolwide programs. Students complete pre- and post- evaluations pertaining to our four Sustainability Education pathways and outcomes (see above). We use data from pre-assessments to identify students' needs for the curriculum focus in the Sustainability Special. On average, 25% of students score "proficient". After teaching, we use the post-evaluation to gauge student understanding/achievement of outcomes. Our goal for post-evaluation is 80% proficient. Currently, students are showing 60% proficient. As a result of what they have learned in Sustainability and Wellness, students apply understanding by using design thinking to choose sustainable projects in their homerooms to complete. Student learning and achievement on these projects is evaluated on homeroom criteria aligned to grade level expectations, the learning process, involvement and completion. Also, student learning and achievement is assessed through the success of schoolwide programs such as the energy incentive program. Classrooms achieved various levels of incentives as they reduced energy consumption. For this reduction of energy, the school district awarded our school \$6,200.

X *Professional development in environmental and sustainability education for all teachers and staff.*

We use an embedded staff development model that includes 100% of teachers and students. During Sustainability, we educate and train students on pathways and outcomes and ask them to share with teachers and classmates. As a result, 12 out of 14 classrooms participated in programs such as: creating habitats, hatching beneficial insects, hatching and caring for chickens, Bonnie Cabbage program, creating an aquaponic aquarium, handmade projects out of upcycled items, seed germination and various recycling programs like ColorCycle. The district offers sustainability education for staff through its Office of Sustainability, monthly newsletters, weekly announcements, and the Sustainability Website for Sedalia. Sedalia's sustainability teachers serve on the District Sustainability Steering Committee to develop and lead professional development opportunities for other schools/teachers. Sedalia hosted a two-day workshop with Global Learning and Observations to Benefit the Environment (GLOBE) Program to learn how to implement citizen science in the Sustainability Special. This event involved teachers from Sedalia, other schools within Douglas County School District, and 12 sustainability champions from other schools around the state.

3. **Which co-curricular programs does your school employ to help ensure effective, place-based, environmental and sustainability education? Check all that apply. Provide specific examples of actions taken for each checked practice, highlighting innovative or unique practices and partnerships.**

X An environmental or sustainability student club, and/or a school Green Team that includes student representation and/or opportunities for student leadership.

In addition to our Sustainability Special, Sedalia has had a Green Team for a number of years. Recently, we transitioned the Green Team into an Eco-Leadership team. Using the design thinking protocol, students across grade levels devise with their own ideas on how to lead the school within the following areas: recycling, conserving energy, chickens, compost/worms, GLOBE Data, and Health and Wellness (following the Pathways of Eco-Schools USA). Each team takes ownership for their pathway and will educate the school with protocols for the school to follow. Older students lead the efforts in each of the areas and mentor younger students so the areas can be sustained across the school even when the older students 'graduate' to middle school.

X Field trips for students to study environmental education at outdoor programs, science museums, zoos, aquariums, parks, and farms.

Thorne Nature Experience program comes into our school and teaches all levels. The In-School Program is an elementary level, natural science program that brings hands-on activities into the classroom through three visits and an optional field trip. All programs are correlated to Colorado Content Standards in Science. Grades study the following: Kindergarten-birds; 1st-worms; 2nd-insects; 3rd/4th-energy; and 5th/6th-ecosystems. We also have field trips to Lowell Ranch, Chatfield Botanic Gardens, Denver Museum of Nature & Science, and the Waste Management Recycling Education Center.

X A school program that includes service learning projects that incorporate environmental topics.

We have a waste diversion project in our lunchroom and all classrooms. For the last two and half years, our students divert waste from the landfill by recycling, feeding food to our chickens, composting, overseeing worm farm, and recycling plastic bags. This year, we have removed liquids from going to the landfill. Every year, we add an element to our recycle program. Students have also learned how to reuse many items by building new items out of old wood or other upcycled materials

X A way to use the buildings, grounds, and neighborhood to teach place-based environmental education and foster local ecological literacy in a hands-on manner.

Our students have created a *hugelkultur* garden (with support from Ron Green, parent/community member), a pollinating garden, raised bed garden (that serves as hoop houses during colder months), and fruit trees/shrubs throughout the school grounds. In addition to these beautiful habitats, the students have built a chicken coop to hatch, raise, feed, take care of and sell eggs for chickens.

4. **Are there any other actions your school has taken (not covered above) to support Element IIIA that should be considered? Please describe below.**

Some of the upcycled items students have made were sold as a fundraiser for our school and raised \$15,000. Also, students built a sensory wall, housed in the cafeteria, with reused pallets and other reused items for cognitive growth for special needs students to use throughout their school day.

Element IIIB: Use of the Environment and Sustainability to Develop STEM Content, Knowledge, and Thinking Skills

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

Students use sustainability pathways to engage in environmental learning projects that include STEM. Science becomes the basis for sustainable projects for students. They demonstrate their knowledge of content by completing projects with the use of science, technology, engineering, and mathematical thinking skills that progress across grades.

- **Kindergarten:** Build and study habitats; learn the plant cycle and water cycle and composting
- **1st-2nd grades:** Explore microbes and worms in compost; learn the water cycle; identify and create clouds; grow plants; dissect seeds; and care for the chickens.
- **3rd-4th grades:** Explore processes such as: composting and learning about microbes and worms in compost under microscope; the water cycle and how environment plays a big role; identify and create clouds; and grow plants; and gain an understanding of perimeter and diameter.
- **5th and 6th grades:** Explore processes such as composting and learning about microbes and worms in compost under microscope. Create fertilizer for our fruit trees from chicken waste. Grow plants and build *hugelkultur* gardens. Explore the process of the water cycle and how environment plays a big role as well as study atmosphere. This group is responsible for collecting GLOBE Data – learning how to be citizen scientists and observing the clouds, air temperature, and soil characterization.
- **All students:** Regularly use iPads, snap circuits, programming robots, Legos, and tools for building projects. Students gain an understanding of how to build using upcycled items. Students explore the conversion techniques of the metrics system and use day-to-day math skills. Students work with wind turbines to understand how wind can be harnessed to learn more about the environment and renewable energy sources. Relatedly, all students learn how to identify renewable versus nonrenewable energy and understand where it comes from and how it is generated and harnessed.

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

Our program started with following the Eco-School pathways: sustainable food, waste and consumption, health and wellness and conserving energy. We based our teaching on these four pathways for K-6. Each unit we started with the basics: 3R's, sources of energy, staying healthy, and conservation of resources. As we have explored these pathways it has opened up many doors for students for their future endeavors. They have discovered that they do not want to be part of the problem but part of the solution. We have exposed them to many resources to show them how other people have career paths that help others use clean resources and live a sustainable lifestyle. With this knowledge students take the initiative to create ideas on how to lessen our carbon footprint for our school community. Students learn they can grow their own food, compost their organic waste, feed and raise chickens for eggs, create fertilizer from chicken waste for the fruit trees, harnessed renewable resources for day to day use.

7. Are there any other actions your school has taken (not covered above) to support Element IIIB that should be considered? Please describe below.

A student-led team initiated a fundraiser to raise money to buy solar chargers for our school. The bake sale was a success and they were able to purchase four solar chargers. The students' future plan is to purchase more and to have solar chargers in every classroom.

Element IIIC: Development and Application of Civic Knowledge and Skills

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

Our students created projects for our school's biggest community fundraiser, Rock the Barn. These projects were created from pallets, wooden wire spools, old nails, pavers, horseshoes, and discarded cans of paint that were all heading to the landfill. Students had to create a design, build, and put the finishing touches on the upcycled items for auction. These students raised money for enrichment programs. Among many other projects happening at Sedalia, there was a charity project for rescue horses and a chili fundraiser with a sustainable twist. They used reusable coffee and soup mugs purchased through thrift shops and donations, real silverware and biodegradable napkins. As part of the lesson, there was very little waste created through this event. Through these community events, Sedalia has shown it is a leader for other elementary schools as our students work toward a safe, clean environment that they can leave for other communities and for future generations to come.

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

- **Kindergarten:** Students get dirty in garden soil. They love to plant seeds and later see them come up. They learn about water cycles and the 3 R's.
- **1st-2nd grades:** Students like to get dirty in the garden, finding frogs, grasshoppers and decomposers. Students study decomposers in our compost by identifying with a chart and microscope. They take care of chickens and enjoy cleaning up the playground during community cleanup day. Along with the 3 R's, they learn about their environment that they live in, from water cycles to pollution. They love to identify types of clouds then create models of their favorite cloud.
- **3rd-4th grades:** Students start plants indoors and research the best location for companion planting. They collect carbon (pencil shavings, etc.) for our compost and collect the chicken eggs daily. They learn how to collect data for GLOBE Program and global awareness. Renewable resources are taught to encourage our students to think smart and to not waste resources.
- **5th-6th grades:** Students monitor waste diversion, including compost, chickens feed, recycling, and landfill weights. They add nitrogen to the compost, monitor and turn it daily. This group is responsible for collecting GLOBE Data – learning how to be citizen scientists and observing the clouds, air temp, and soil characterization. Students continually surprise us about how they can implement what they have learned by creating solutions for real life problems. Our Eco-Leadership team is empowered with the ability to have their own budget for the development of their school protocols and their projects. Organized shared folders in Google Drive allow the teams to be communicative and successful.

10. Describe how outdoor learning is used to teach an array of subjects in context (place-based education), engage the broader community, and develop civic skills.

Students have learned to follow directions on seed packets while collaborating in groups during planting. Students use math skills for measuring, spatial awareness, and environmental timing. They are engaged with hands-on activities that may involve a vermicomposting, compost, shovels, thermometers, live animals and other real-world aspects. A few "graduates" are helping to start their own Green Team at Castle Rock Middle School using what they learned in our Sustainability and Wellness classes. These students are planning on building a *hugelkultur* garden at their middle school.

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

We have relied on many partnerships to support our programs, including Eco-Schools USA. With community experts and collaboration with other schools such as Heritage Elementary (2016 ED Green Ribbon Awardee), we were able to build our garden and chicken programs. We collaborate with our school district's Office of Sustainability for the Sustainability Incentive Program, launching new pilots, and developing resources for our schools. Sedalia gave another school a compost tumbler for their new sustainability program. For another school, we helped a teacher with her Health & Wellness class by lending her some tools to get her started. We have also been a host for other schools to learn.

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

Sustainability and STEM is integrated within our classrooms in the following ways:

- **Kindergartners:** learn about cause and effect with plants and animals.
- **1st-2nd grades:** study lifecycles of animals and incubate and hatch chickens; grow and study plants; create projects out of recycled items; study solids/liquids and earth systems.
- **3rd-4th grades:** study physical science, life science and Lego engineering; take care of various habitats in their classrooms that use recycled paper.
- **5th-6th grades:** study renewable and nonrenewable resources, natural resources, atmosphere, ecosystems, weather, life science and earth system science; create an aquaponics aquarium in their classrooms; researched, measured and designed our bee and butterfly garden and chicken coop.

13. Are there any other actions your school has taken (not covered above) to support Element IIIC that should be considered? Please describe below.

We are continuously evaluating the effectiveness of our programs and always open to implementing new and creative ideas to improve our school's sustainability efforts! Sedalia creates a foundation for our elementary students to carry with them into higher education and their future as contributing citizens to society.