



2013-2014 School Nominee Presentation Form

PART I - ELIGIBILITY CERTIFICATION

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 one or more of grades Pre-K-12. (Schools on the same campus with one principal, even a Pre-K-12 school, must apply as an entire school.)
2. The school has been evaluated and selected from among schools within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
3. Neither the nominated public school nor its public school district is refusing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review.
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 2014

Charter Title I Magnet Private Independent

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

Official School Name Mesa Elementary School
(As it should appear on an award)

School
Mailing Address 703 West 7th Street
(If address is P.O. Box, also include street address.)

<u>Cortez</u>	<u>CO</u>	<u>81321</u>
City	State	Zip

County Montezuma State School Code Number* 5836

Telephone (970) 565-3858 Fax (970) 565-5137

Web site/URL <http://mesa.cortez.k12.co.us> E-mail kumbarger@cortez.k12.co.us

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

KD Umbarger Date 1-28-14
(Principal's Signature)

Name of Superintendent* Mr. Alex Carter
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

District Name* Montezuma-Cortez School District Re-1 Tel. (970) 565-7522

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate. This is one of the highest performing green schools in my jurisdiction.

[Signature] Date 1-28-14
(Superintendent's Signature)

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

PART II – SUMMARY OF ACHIEVEMENTS

Instructions to School Principal

Provide a concise and coherent "snapshot" that describes how your school is representative of your jurisdiction's highest achieving green school efforts in approximately 800 words. Summarize your strengths and accomplishments. Focus on what makes your school worthy of the title U.S. Department of Education Green Ribbon School.

PART III – DOCUMENTATION OF STATE EVALUATION OF NOMINEE

Instructions to Nominating Authority

The Nominating Authority must document schools' high achievement in each of the three ED-GRS Pillars and nine Elements. For each school nominated, please attach documentation in each Pillar and Element. This may be the Authority's application based on the Framework and sample application or a committee's written evaluation of a school in each Pillar and Element.

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 one or more of grades Pre-K-12. (Schools on the same campus with one principal, even a Pre-K-12 school, must apply as an entire school.)
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: **Mr. Robert Hammond**

(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.


(Nominating Authority's Signature)

Date 1-30-14

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: February 28, 2015

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.

Colorado Green Ribbon Schools

2013-2014

PART IA: SCHOOL CONTACT INFORMATION

School Name: **Mesa Elementary** District Name: **Montezuma-Cortez School District Re-1**

Street Address: **703 West 7th Street, Cortez, CO 81321**

Website: **<http://mesa.cortez.k12.co.us/>** Facebook page:

Principal Name: **KD Umbarger**

Principal Email Address: **kumbarger@cortez.k12.co.us** Phone Number: **970-565-3858**

Principal Signature*: **KD Umbarger**

Lead Applicant Name (if different): **Kate Lein**

Lead Applicant Email: **klein@cortez.k12.co.us** Phone Number: **970-565-3858**

Lead Applicant Signature*: **Kate Lein**

**By signing this application, Principal and/or Lead Applicant assure that the information provided is accurate to the extent possible.*

School Demographics

Level <input type="checkbox"/> Early Learning Center <input checked="" type="checkbox"/> Elementary (PK- 5 or 6) <input type="checkbox"/> K - 8 <input type="checkbox"/> Middle (6 - 8 or 9) <input type="checkbox"/> High (9 or 10 - 12)	School Type <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private/Independent <input type="checkbox"/> Charter <input type="checkbox"/> Magnet	How would you describe your school? <input type="checkbox"/> Urban <input type="checkbox"/> Suburban <input checked="" type="checkbox"/> Rural	Is your school in one of the largest 50 districts in the nation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Total Enrolled: 394
Does your school serve 40% or more students from disadvantaged households? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	% receiving FRPL 58% % limited English proficient _____ Other measures _____		Graduation rate: _____ Attendance rate: _____

PART II: APPLICATION NARRATIVE

Summary Narrative

It has been said that from humble beginnings come great things. This statement reflects the efforts of Mesa Elementary School's dedicated staff and students to reduce our environmental footprint in rural southwest Colorado. Located in the shadow of Mesa Verde, Mesa Elementary is part of the Montezuma-Cortez School District. Nestled among historic landmarks, Native American reservations, and a striking desert-meets-mountain landscape, the District identifies itself as "a community rooted in family, tribe, and tradition." Faced with socio-economic disparities, a transient student population, and turn-over among staff, Montezuma-Cortez School District has encountered many unique challenges across our schools. Despite these challenges, Mesa Elementary has persevered to become a dedicated leader in sustainability in Colorado.

On Earth Day 2009, Mesa's kindergartners launched a service learning project that focused on recycling paper in our school. Teachers purchased dish tubs which were distributed to all 18 classrooms with recycling logos taped on the side. Every Wednesday our school office would announce over the P.A. system that "Wednesday's Wee We-cyclers" would be pulling their little green "Radio Flyer" wagon, to collect the paper recycled by each classroom. The paper collected from this process was boxed and placed in the back of my car until I could take it to our local recycling center.

Word of mouth helped expand our project. At a weekend barbeque, a friend inquired about the back end of my vehicle that was stuffed to the roof with paper and cardboard. Excited to hear about our efforts at Mesa, he mentioned that as a member of the "Four Corners Recycling Initiative" he offered to help bolster Mesa's "We-cycling" program. Several months passed before a big green dumpster was dropped off in the parking lot. At that moment, Mesa was at the forefront of paper recycling for the district!

We are grateful to the Four Corners Recycling Initiative and for the partnership forged with the Dolores Public Lands office as they donated real recycling tubs to replace our dish tubs and recycling dumpsters on wheels that have provided greater capacity and ease of recycling. Our green wagon has been retired but still bears the sign taped to it that states "One person can make a difference...be that person!"

Mesa Elementary School is a remarkable place to work. Not only do we have students that want to change the world, but our school is filled with dedicated staff and administration who support children's efforts to make a difference. Mesa is in its third year of working cooperatively with McKinstry, an energy efficiency contractor, to address energy education and operational optimization. The campaigns spearheaded by this organization have challenged students and staff to continually assess, audit, and address our energy and resource consumption at school and at home. A most heartening aspect is the message students take home to share with their families. Students are energized when they realize that they have the power to affect and sustain environmental change. Education of students and staff has focused on campaigns emphasized by McKinstry to "Power Down," "Take Action!" and "Turn it Off!" Students routinely ask what can be recycled. It's great to hear them tell one another to "Turn off the water – don't waste it", and "Don't forget to turn off the lights!" when we leave our classroom. Our proactive maintenance staff has worked hand in hand with McKinstry to improve operational performance within our school while taking concerted efforts to implement ideas to reduce our overall energy consumption especially during holiday and summer breaks.

We are fortunate to have staff that support the health of our students as well as of each other. Our movement education teacher brings a skillset and energy level to our students that is unparalleled, providing opportunities and lessons that focus on lifelong fitness to students and staff. We have a community outreach

committee developed through our newly adopted literacy program that encourages staff to build partnerships with community organizations to promote literacy and healthy choices. Such partnerships include local fire firefighters who come in and read to our students, our local health department who provides dental screenings and follow-up care, and local farmers who share healthy food choices with our students on our “Colorado Proud” days. Our partnership with the San Juan Mountains Association has provided exceptional environmental education lessons, resource materials, and field trips for our classes, including “Project Wild” and “Project Learning Tree” professional development trainings for district teachers with Colorado Parks and Wildlife.

At Mesa, great things are progressing from humble beginnings. We may have a long journey on our mission for environmental change, but we have high desire and commitment from our staff, from community partnerships, and from our most valuable of all natural resources – our students.

Green School Program and Awards (Cross-Cutting Questions)

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

(X) Yes () No Program(s) and level(s) achieved:

- ENERGY STAR (score: 92)
- McKinstry powerED program (72% student participation score; 32% school energy reduction)

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

() Yes (X) No Award(s) and year(s) _____

Pillar I: Reduced Environmental Impact and Costs

Element IA: Reduced or Eliminated Greenhouse Gas Emissions

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

(X) Yes () No Percentage reduction: 19.1% reduction (126 metric tons of CO2)

Over (m/yy - m/yy): 4/2012 – 8/2013

Initial GHG emissions rate (MT eCO2/person): 1.32 MT eCO2/person/year

Final GHG emissions rate (MT eCO2/person): 1.07 MT eCO2/person/year

Offsets: None How did you calculate the reduction? Comparing reductions in all energy commodities using baseline versus actual consumption data.

2. Do you track resource use in EPA ENERGY STAR Portfolio Manager? (X) Yes () No

If yes, what is your score? 92 If score is above a 75, have you applied for and received ENERGY STAR certification? () Yes (X) No Year: We have not pursued the official ENERGY STAR certification yet due to the associated costs.

3. Has your school reduced its total non-transportation energy use from an initial baseline? (X) Yes () No

Current energy usage (kBtu/student/year): 5,442.39 kBtu/student/year

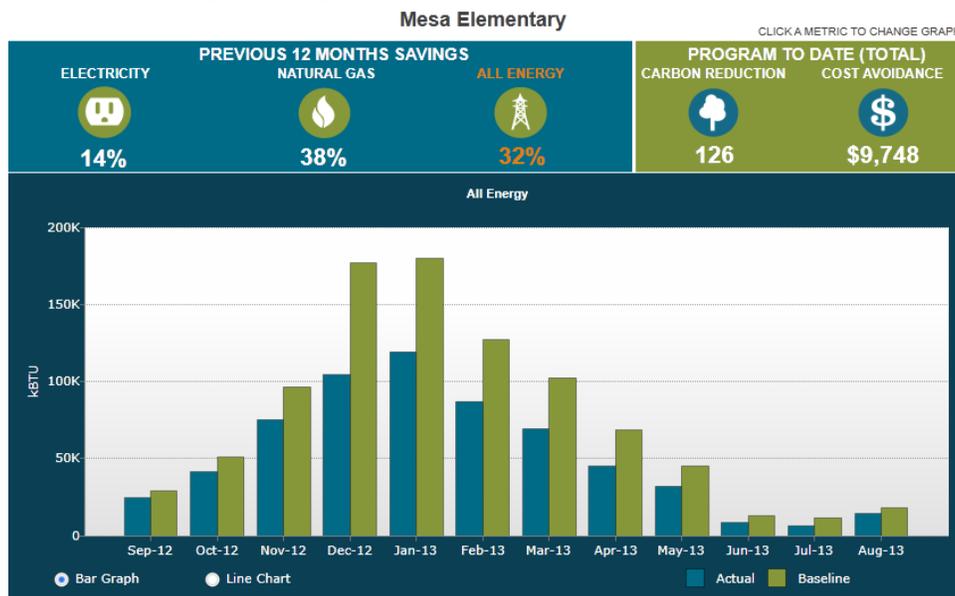
Current energy usage (kBTU/sq. ft./year): 47.24 kBTU/sq ft/year

Percentage reduction: 32% all energy (14% electricity and 38% natural gas)

Over (m/yy - mm/yy): 4/2012 – 8/2013

How did you document this reduction? These reductions are the annual percentage difference between baseline kBTU consumption and actual kBTU consumption (documented through actual utility bills). Weather regression has been applied to the data to remove variations in weather between the years and show an accurate year-over-year reduction in energy consumption. Energy goals and progress (an energy plan) are set and communicated regularly for both our school and district.

These energy savings have been accomplished entirely through changing behaviors and optimizing equipment – no new equipment or retrofits were installed at Mesa! Students and staff are actively engaged every day in energy management.



4. 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

Participation in USDA Fuel for Schools, DOE Wind for Schools or other federal or state school energy program: None.

Mesa Elementary has focused on making the building as efficient as possible before exploring renewable energy opportunities. To date, Mesa has significantly decreased electricity, natural gas, and water usage through changing behaviors and maintaining more efficient operations.

5. In what year was your school originally constructed? 1960

What is the total building area of your school? 44,374 square feet

6. Has your school constructed or renovated building(s) in the past ten years? (X) Yes () No

For new building(s): Percentage building area that meets green building standards: 0%

Certification and year received: N/A

Total constructed area: 10,036 sq ft addition in 1985; 3,453 sq ft addition in 2006

For renovated building(s): Percentage of the building area that meets green building standards: N/A
Certification and year: N/A Total renovated area: N/A

Element IB: Improved Water Quality, Efficiency, and Conservation

7. Can you demonstrate a reduction in your school's total water consumption from an initial baseline? **Yes.**
Average Baseline water use (gallons per occupant): 13,524 gallons/occupant/year
Current water use (gallons per occupant): 7,668 gallons/occupant/year
Percentage reduction in domestic water use: 33% (1.6M gallons/year reduced to 1.1M gallons/year)
Percentage reduction in irrigation water use: 48% (3.7M gallons/year reduced to 2.0M gallons/year)
Time period measured (mm/yyyy - mm/yyyy): 2011-2012 compared to 2012-2013 school years
How did you document this reduction (i.e., ENERGY STAR Portfolio Manager, utility bills, school district reports)?: [Utility bill data](#)

Mesa has addressed water conservation through both occupant awareness and improved operations. Mesa worked with students to be more aware of their water usage during everyday activities like washing hands. One video attached to this application, *Planet Friendly Handwashing*, was used as a training video for other students to learn to conserve water. In addition, the school has cut back on irrigation, instead utilizing more water-efficient and regionally appropriate landscaping.

8. Percentage of your landscaping considered water-efficient and/or regionally appropriate: 50%
Types of plants used and location: An estimated 50% of Mesa's playground area is composed of wood chips and pea gravel especially under playground structures for safety. An estimated 20% of Mesa's outdoor space is unmaintained natural grasses, with the remaining 30% of space comprised of grass and regionally appropriate trees (Cottonwood, Maple, and Evergreens) which provide shade for students and opportunities for Project Learning Tree activities. Our district has cut back on scheduled watering during the year to reduce water consumption and costs.

Mesa also has a marsh area on the school grounds that is used as a natural area for students to conduct inquiry based activities. The area known as the Mesa Environmental Lab is unmaintained (not mown).

9. Describe alternate water sources used for irrigation. Mesa relies on city water and rainwater to water our landscaping. Our district has cut back on scheduled watering during the year to reduce water consumption and costs.

10. Describe any efforts to reduce storm water runoff and/or reduce impermeable surfaces.
[Storm water drains off into drainage canal.](#)

11. Our school's drinking water comes from: () Municipal water source () Well on school property () Other:

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

The city sources water from McPhee reservoir, and uses conventional surface water treatment. A Source Water Protection Plan has been implemented by the City of Cortez with surrounding water providers to define potential sources of contamination in our watershed, and categorize them by threat potential. The community is involved through education to add local level of protection to compliment state and federal regulations.

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

PH control on finished water to customers provides water that's non-corrosive. By doing so the lead in the brass fittings doesn't leach out into the water. The state Health Department requires the City of Cortez test once every three years. City water has always been well below the MCL for lead.

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

An estimated 30% of Mesa's school grounds are used for environmental study and stewardship. Classes routinely use these areas to extend learning investigations. These areas also provide opportunities to be community helpers that "leave no trace." Students take pride in cleaning up the trash they find in their outdoor learning environments. Mesa also has a marsh area on the grounds used as a natural area for students to conduct inquiry based activities.

Element IC: Reduced Waste Production

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

A - Monthly garbage service in cubic yards (garbage dumpster size(s) x number of collections per month x percentage full when emptied or collected): **3,600 cubic yards**

B - Monthly recycling volume in cubic yards (recycling dumpster sizes(s) x number of collections per month x percentage full when emptied or collected): **1,200 cubic yards**

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

Recycling Rate = $((B + C) \div (A + B + C)) \times 100$: **25%**

Monthly waste generated per person = $(A/\text{number of students and staff})$: **9 cubic yards**

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

Approximately 90% of Mesa's office/classroom paper for use in our printers is purchased from the Contract Paper Group, Inc. This company claims to purchase paper from environmentally responsible suppliers knowing that green practices are important for conservation of natural resources.

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

Flammable liquids None	Corrosive liquids None	Toxics None	Mercury Florescent lamps and ballasts <i>(limited quantity – standard lifecycle replacement)</i>	Other: Electronics, computer equipment <i>(limited quantity – standard lifecycle replacement)</i>
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How is this measured? Mesa has two primary sources of hazardous waste generated at the school – florescent lamps and electronics (mainly computers). These are both treated as toxic and hazardous materials, and collected by the school district for proper disposal and recycling. Lamps, batteries, ballast, electronics and computer equipment usually contain mercury, lead and other heavy metals, polychlorinated biphenyls (PCBs) or other harmful materials, all of which are considered toxic and hazardous to human health and the environment. Montezuma-Cortez School District utilizes RecyclePak from Veolia Environmental Services.

Hazardous waste is picked up from Mesa Elementary, packed into secure containers by the school district, and recycled by Veolia.

How is hazardous waste disposal tracked? Hazardous waste disposal is tracked and managed by the Montezuma-Cortez School District. Hazardous waste is picked up from district schools, packed into secure RecyclePak containers by the district, and recycled by Veolia Environmental Services. During the recycling process for florescent lamps, roughly 96% is recovered as glass, 2% as aluminum, less than 2% as phosphor powder and less than 1% as mercury for refining. Routine monitoring of mercury values in all recovered materials, through TCLP and total mercury testing techniques, is standard operating procedure. Electronic equipment is received and sorted into groups by electronic components. All miscellaneous equipment is shipped domestically for re-use, refurbishment, or recycle where monitors are de-manufactured and bald CRTs are shipped to a domestic leaded glass recycler for re-use. Various components, copper, ferrous metal and insulated wire are shipped off site for recycle. Processing units are sorted and refurbished or de-manufactured into precious metals, circuit boards, power supplies and disk drives.

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

At Mesa, students are active recyclers! Students are also finding ways to repurpose objects. We had a recycling lesson about paperboard and one of the fifth graders shouted out - "Check out my desk organizer!" (It was a recycled cereal box.) The classroom paper recycling bins are emptied everyday versus every 3 days as kids are becoming more conscious of what can be recycled. Corrugated cardboard is recycled by Mesa's head custodian. It is broken down and delivered to the Cortez recycling station. Aluminum cans are recycled in a hallway receptacle and are collected by Belt Salvage, earning Mesa money for recycling these metals. The most important aspect is the message that students are taking home with them. They are questioning what can be recycled, reused, and repurposed instead of thrown in the landfill.

18. Which green cleaning custodial standard is used? [FSC/Green Seal Certified/Design for the Environment](#)
What percentage of all products is certified? [60%](#)
What specific third party certified green cleaning product standard does your school use? [FSC/Green Seal Certified/Design for the Environment](#)

Element ID: Use of Alternative Transportation

19. What percentage of your students walk, bike, bus, or carpool (2 + student in the car) to/from school? (Note if your school does not use school buses) [42%](#) How is this data calculated?

The 5 buses that service Mesa carry approximately 165 students to and from school each day, reflecting approximately 42% of our students. This number changes daily as students' transportation needs change due to early pick-ups for appointments etc. Many students walk home with siblings. Our pickups often carpool with family or friends. We have two local daycare centers that drive shuttle busses to pick up students for after school hours.

20. 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

Describe activities in your safe routes program:

Busses wait and turn off engines. Children follow a red strip to maintain a safe distance from the busses. Our car zone is staffed by teachers who walk each child to and from their vehicle. Walkers use crosswalks and a stoplight located at the intersection near our school.

21. Describe how your school transportation use is efficient and has reduced its environmental impact. Busses service approximately 42% of our students. They turn off engines while loading and unloading students reducing emissions. Many students walk home with siblings. Our pickups often carpool with family or friends. We have two local daycare centers that drive shuttle buses to pick up students for after school hours.

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

Mesa Elementary has been actively involved in working with students and staff to reduce environmental impacts. We have particularly focused on changing behaviors – encouraging students and staff to save energy and reduce waste by changing their daily habits. We have focused on energy management (reducing our school’s total energy consumption by 32%), water conservation, and recycling. Students regularly conduct energy audits of our school as part of our “Power Patrol” team.

To support our efforts, Mesa has meaningful and ongoing partnerships with the following organizations:

- City of Cortez Fire Department
- Montezuma County Department of Health
- Four Corners Recycling Initiative
- Delores Public Lands
- Farm to School
- Project Learning Tree
- Project WILD
- OWL (Outdoor Wild Learning)
- Colorado Parks and Wildlife
- San Juan Mountains Association
- McKinstry
- Southwest Memorial Hospital
- Hawkins Preserve
- Cortez Cultural Center

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

Element IIA: Integrated School Environmental Health Program

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

Our school is not licensed to spray for pests. Mesa conducts routine inspections for pests, and only solicits outside help or pest management services if absolutely needed. Over the past five years, only one contractor has been required at Mesa to assist with ant mitigation. Any pest issues are documented by the school district to support future pest prevention efforts.

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

As noted above, our school district is not licensed to spray pesticides on school grounds.

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.

Our school prohibits smoking on campus and in public school buses.
Signs are posted at all entrances to the school.

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

Our school uses fuel burning appliances and has taken steps to protect occupants from carbon monoxide (CO) Carbon monoxide monitors have been installed, carbon levels are measured.

Our school does not have any fuel burning combustion appliances

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.

Our school has identified any wood playground or other structures that contain chromate copper arsenate and has taken steps to eliminate exposure. Not applicable as our structures are metal and plastic.

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

Chemicals are kept in locked storage, and are only used when necessary.

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

Children with asthma have health plans listed with the nurse's office. Classrooms are able to open or close windows at their discretion, allowing for increased ventilation or minimized outdoor infiltration, whichever is necessary. Mesa's maintenance team regularly changes air filters every six months to ensure that circulated air is free of contaminants.

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

Leaks are promptly cleaned and any mildew/mold issues are handled immediately and materials replaced if needed.

7. Our school has installed local exhaust systems for major airborne contaminant sources. ()Yes (X)No

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

Units are on a scheduled preventative maintenance check to clean and replace filters as needed. Mesa Elementary also works with McKinstry, an energy efficiency contractor, to address energy education and operational optimization. A McKinstry commissioning engineer regularly inspects systems and equipment at

Mesa to ensure that they are operating correctly and efficiently. Any necessary adjustments that are identified are completed by McKinstry or the District maintenance team.

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

Mesa Elementary works with McKinstry, an energy efficiency contractor, to address energy education and operational optimization. A McKinstry commissioning engineer regularly inspects systems and equipment at Mesa to ensure that they are operating correctly and efficiently. In particular, McKinstry performs ongoing verification of functionality on air handling equipment including assurance that outside air is appropriately brought into the building and distributed. All fresh air requirements meet applicable codes and national ventilation standards. Any necessary adjustments that are identified are completed by McKinstry or the District maintenance team.

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

Mesa Elementary works with McKinstry, an energy efficiency contractor, to address energy education and operational optimization. A McKinstry commissioning engineer regularly inspects systems and equipment at Mesa to ensure that they are operating correctly and efficiently. McKinstry performs ongoing verification of functionality on air handling equipment including assurance that outside air is appropriately brought into the building and distributed. Any necessary adjustments that are identified are completed by McKinstry or the District maintenance team.

Element IIB: Nutrition and Fitness

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

Our school participates in the USDA's Healthier US School Challenge. Level and year:

Our school participates in a Farm to School program to use local, fresh food.

We have eight local farms that participate in the Farm to School program providing fresh produce for Mesa students. These include Eagle Tree Farm, Food For All Farm, Four Seasons Greenhouse and Nursery, The Wily Carrot, Stone Free Farm, Bountiful Ridge, Red Canyon Farm, and Rex Tozer. Locally grown grass fed beef is provided by Sunnyside Farms. This meat is raised without the use of synthetic hormones, steroids, or antibiotics.

Our school has an on-site food garden.

Mesa participates in a Farm to School program to provide fresh produce from eight local farms to Mesa students.

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

Our students spent at least 120 minutes per week over the past year in school supervised physical education. Mesa students participate in 50 minutes of structured physical education classes weekly.

An alternating Friday schedule allows additional time for each class. Dancing is offered every morning for 20 minutes before school as a supervised cardiovascular and crossing midline activity for staff and students. Students run laps three times daily under staff supervision before they can free play at recess. Students take “brain breaks” during the day on the running path also. Primary teachers utilize music to promote letter and sound recognition while crossing the midline. Our movement teacher consults with teachers to increase difficulty and intensity of movement skills.

[X] At least 50% of our students' annual physical education takes place outdoors. Mesa Elementary students participate in a variety of outdoor games and activities. These activities include but are not limited to 12 minute runs, mile runs, 4th-5th grade district track meet, field days, team sports, and individual activities.

[X] Health measures are integrated into assessments. The five components of fitness are taught and assessed in K-5 movement education classes. These components include cardio-respiratory fitness/endurance, muscular strength, muscular endurance, flexibility, and body composition and nutrition.

[] At least 50% of our students have participated in the EPA's Sunwise (or equivalent program). Classroom teachers on an individual basis talk about the effects of the sun on skin. Every outdoor field trip or activity, teachers ask that sunscreen be placed on child or provided for protection of the child while outside.

[X] Food purchased by our school is certified as "environmentally preferable"
Percentage: 10% Type: Local Farms provide fresh vegetables as part of the Farm to School program at Mesa; grass fed, no-hormones ground beef is provided by Sunnyside Farms in Durango, Colorado

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

Our school has access to a neighboring cultural nature preserve called Hawkins preserve. The Cortez Cultural Center oversees this area and has provided educational, fitness, and leisure activities for students and families to enjoy. Crow Canyon and Mesa Verde are recreation areas that our students routinely visit to hike, explore, and extend their classroom lessons of anthropology, archeology, and conservation of natural resources. Fourth-grade and fifth-grade students take field trips as extension activities.

13. Describe any other efforts to improve nutrition and fitness, highlighting innovative or unique practices and partnerships. Mesa is part of a wellness team that supports and promotes better wellness for children, through physical and mental health education and counseling. The wellness team also works with food services to promote nutrition and healthy eating habits. In addition, Mesa Elementary participates in the National School Lunch Program and the National Breakfast Program to increase nutritional knowledge and access to healthy foods for students.

Mesa's movement education teacher utilizes the “Five for Life” Fitness and Nutrition curriculum. She also incorporates the use of pedometers to track steps to promote cardiovascular endurance and lifelong fitness for 2nd-5th graders. Our school's community outreach committee is coordinating the second annual “Mesa Elementary Community Fun Run” for children and adults. Last year's event proved to be a wonderful success with local businesses and community health organizations including Southwest Memorial Hospital and Hibbett

Sports setting up information booths. Staff members have fitness opportunities with line dancing classes and TRX fitness band classes offered after school in the gym.

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

14. Does your school use a Coordinated School Health approach or other health-related initiatives to address overall school health issues? (X) Yes () No

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

Mesa is part of a wellness team that supports and promotes better wellness for children, through physical and mental health education and counseling. The wellness team also works with food services to promote nutrition and healthy eating habits.

Mesa also works cooperatively with the health department to track vaccinations for children. Mesa provides vision and hearing screenings for children and works with our local BOCES to provide support with an audiologist if needed.

15. Does your school partner with any postsecondary institutions, businesses, nonprofit organizations, or community groups to support student health and/or safety? (X) Yes () No

If yes, describe these partnerships: Montezuma County Health Department provides dental screenings and follow-up care if needed for students at Mesa. The Cortez Fire Department comes in to our primary grades to educate students on fire safety and prevention. They have also partnered with our classes to promote literacy. As stated earlier, our local community hospital, Southwest Memorial, partnered with Mesa for our first annual community fun run.

16. Does your school have a school nurse and/or a school-based health center? (X) Yes () No

Mesa has a school health aide who addresses first aid with the students in need, maintains health records for our children, and refers students to a School Registered Nurse if needed.

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

Mesa Elementary uses three different curricula to help address students' social-emotional needs. We use Dinosaur School (a program connected to the Incredible Years), Steps to Respect, and an offshoot of our reading curriculum called Getting Along Together. This program combined with the Positive Behavior Intervention System that we have taught in the past, help our students become more aware of their own social-emotional behaviors and that of other students. Dinosaur School is used in kindergarten through second grade, and employs the use of puppets to teach students about their feelings, how to recognize how other students feel, and how to manage their emotional responses to other students. Steps to Respect is used in grades three through five to teach students what respecting others and yourself looks like. Students learn how to empathize, how to make and keep friends, and what to do if someone is bullying others. Getting Along Together is a part of the reading curriculum Success For All. It teaches students one skill each week to help them interact with other students.

Pillar III: Effective Environmental and Sustainability Education

Element IIIA: Interdisciplinary learning about the key relationships between dynamic environmental, energy and human systems.

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

Our school has an environmental or sustainability literacy requirement.

Environmental and sustainability concepts are integrated throughout the curriculum.

STEM units for all grades were planned and implemented in the spring of 2013. San Juan Mountains Association (SJMA) was one partner who helped teachers in this planning process. SJMA is the non-profit partner with the local Forest Service and BLM offices. Teachers and students enjoyed the integrated approach to teaching environmental and sustainability concepts and our school is investigating further implementation.

Our principal, KD Umbarger, provides weekly environmental messages over the P.A. system to encourage students to be mindful of their civic responsibility to be good stewards of our corner of the planet. She praises the efforts of students who take the time to clean up trash and recycle items, as well as encouraging students to be conscious of their energy and water consumption.

Environmental and sustainability concepts are integrated into assessments.

Students evidence high levels of proficiency in these assessments.

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

Mesa Elementary participated in a STEM training to create STEM units focusing on sustainability for all grades in the spring of 2013. From our STEM coursework and unit implementation last spring, all subject areas are integrated into the unit. A science essential question/investigation is the hook and math, reading, writing, language arts, art, music, and even P.E. were woven into instruction. All students were impacted by the instruction as all K-5 classes participated in implementing the STEM units that were designed. In fact, the whole district utilized the STEM units created.

In addition, Gabi Morey, San Juan Mountains Association Conservation Education Director, has facilitated "Project Wild" and "Project Learning Tree" professional development trainings for district teachers in partnership with Leigh Gillette from Colorado Parks and Wildlife. These were included in a four-day OWL (Outdoor Wild Learning) training which visited six local sites including Mancos State Park for plant and macroinvertebrate studies, the Weber Fire site to discuss fire ecology, Denny Lake for macroinvertebrate investigations, Boggy Draw for habitat studies, and Sand Canyon and Hawkins Preserve for native plants and archeology. Future professional development workshops in 2014 will include "Forest to Faucets" studying watersheds and water use. This workshop will be put together by Mountain Studies Institute, San Juan Mountains Association, and the Water Information Program.

Element IIIB: Use of the environment and sustainability to develop STEM content, knowledge and thinking skills

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

Percentage of last year's eligible graduates who completed the AP Environmental Science course during their high school career: [N/A](#) Percentage scoring a 3 or higher: [N/A](#)

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

[Mesa Elementary integrates STEM thinking skills and content knowledge in a variety of ways. As a participant in McKinstry's powerED program, our school focuses on involving students and staff in saving energy and reducing waste. As part of this effort, students participate in hands-on learning opportunities and learn STEM skills through activities like: participating in a building operator tour of our school to learn how mechanical and HVAC systems function, measuring energy usage of appliances and electronics through a watt meter tool, calculating the annual energy costs of various items, and learning about the interconnectedness of environmental issues.](#)

[As stated above, Mesa staff members were trained in creating STEM units in the spring of 2013. These units were then planned and implemented throughout the school. In 2014, Mesa teacher will participate in "Forest to Faucets" professional development to educate students on watersheds and water use. In addition, Mesa is utilizing the STEAM approach and including art in the implementation of STEM at Mesa.](#)

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

[Mesa Elementary uses sustainability and the environment to teach green technologies and career pathways in a variety of ways including using the building as a teaching tool by inspiring students to learn about HVAC and mechanical systems and the real-world applications of engineering and construction. Additionally, through various partnerships in the community, students are exposed to environmental career pathways.](#)

Element IIIC: Development and application of civic knowledge and skills

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

[Mesa students have participated in service learning projects that focus on the environment and sustainability issues. Kindergartners launched Mesa's paper recycling program which led into the Recycling Olympics to promote all types of recycling that is available in our area. Teachers have also focused on repurposing objects for art projects, and collecting items to donate for families in need such as books, winter coats and gently used toys at holiday time. Students routinely clean up trash in our outdoor learning spaces, not only in Mesa's own Environmental Lab, but in our neighboring Hawkins Preserve. Fourth-grade students have learned about "site-stewardship" when visiting local archeological sites. Students have been taught to leave no trace and to take only memories.](#)

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

[K/1st grade: Gabi Morey, Conservation Education Director with the San Juan Mountains Association, has conducted Project Learning Tree investigations and field trips to local Forest Service campgrounds and Hawkins Preserve to teach students units on trees, habitats, birds, and evidence animals leave behind. Recycling, reusing, reducing, and composting topics have also been covered. Students have also used the school as an outdoor classroom studying concepts ranging from trees to insects.](#)

2nd/3rd grade: Activities included gathering leaves and soils to identify animal biomes, plant and insect identification, Hawkins Preserve hike and archeological site investigation, identification of cardinal directions, and trash pick-up.

4th/5th grade: Fourth-grade teachers have focused on archeology and site-stewardship. They celebrate Arbor Day and plant trees and have conducted People Power Planet activities including “Kill-A-Watt” watt usage and vampire energy draw hunts. Fifth grade teachers have conducted activities including investigations in macroinvertebrates and water conservation at the Dolores River, and studied habitats on local Forest Service land known as Boggy Draw. They also are planning to use worm farms for composting starting this year.

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

Our district worked cooperatively with members from each grade level to develop and design STEM units focusing on sustainability for all grades in the spring of 2013. Kindergarten through second grade focused on ecosystems. Lessons and extension activities were implemented with service learning projects connected to each area of focus. Third through fifth grade units focused on weather and social implications in history. The San Juan Mountains Association, Colorado Parks and Wildlife, Dolores Public Lands Office, and the Four Corners Recycling Initiative have been very instrumental in helping our students with environmental and sustainability education. We look forward to continuing and expanding these partnerships as Mesa further develops its environmental and sustainability studies.

10. Photos & Videos

Videos

- <http://vimeo.com/57642350> “Planet Friendly Hand washing at Mesa Elementary” (0:51 minute)
- <http://vimeo.com/55488183#at=91> “Student Conducts an After-School Energy Audit as Part of Mesa’s Power Patrol Team” (1:31 minutes)
- <http://vimeo.com/79144462#at=0> “I’m Gonna Tell My Dad – Students Conduct Kill-A-Watt Meter Investigations” (0:41 minutes)

Photos

- Mesa is proud of our students and all that we have accomplished at our school. The following are some of our favorite photos of Mesa students in action!



Fifth graders study aquatic micro-habitats at Mancos Lake State Park.



Students use Mesa’s Environmental Lab to study habitats during a STEAM (STEM plus Arts) unit conducted last spring.



Classroom buddies clean up trash in Mesa’s Environmental Lab. This space is used all year long!



Mesa's maintenance and custodial team manages lighting levels in classrooms and ensures energy and operational efficiency in the school.



Students participate in a "Building Operator Tour" to learn about mechanical and HVAC systems and how Mesa Elementary functions and uses energy.



Students at Mesa give high-fives and hugs to the Energy Hog after participating in an all-school assembly to learn ways to save energy.



Kindergarten students release butterflies in Mesa's Environmental Lab as part of a classroom unit on lifecycles.



Students work in partnership with Mesa's custodial and facilities team to sustain a school-wide recycling program.



The San Juan Mountain Association leads Mesa students on a snowshoeing expedition in the Environmental Lab.



Mesa students and families gather at the starting line of the first annual Community Fun Run.



First and second graders learn about Navajo Culture at the Hawk's Presence ED-GRS (2013-2014)



Students investigate macro-invertebrates with Colorado Parks & Wildlife.