



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. Hank Willems

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

Official School Name: Bethany Christian Schools

(As it should appear on an award)

Official School Name Mailing Address: 2904 S Main St Goshen, IN 46526

(If address is P.O. Box, also include street address.)


County: Elkhart State School Code Number *: B015

Telephone: (574)534-2567 Fax: (574)533-0150

Web site/URL: www.bethanycs.net E-mail: info@bethanycs.net

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

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

_____ 
(Principal's Signature)

Date: 01/18/17

Name of Superintendent: Mr. Tim Lehman (Head of School)

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

District Name: N/A

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

_____ 
(Superintendent's Signature)

Date: 01/18/17

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: Indiana Department of Education

Name of Nominating Authority: Mr. Jarred Corwin

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

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

 _____ Date:01/25/17

(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.

ED-GRS Indiana Department of Education Application

Thank you for your interest in completing the Indiana Department of Education application for nomination to U.S. Department of Education Green Ribbon Schools (ED-GRS). In order to complete this application, you will need to collect data about your school's facility, health and safety policies; food service; and environmental and sustainability curriculum.

ED-GRS recognizes schools taking a comprehensive approach to greening their school. A comprehensive approach incorporates environmental learning with improving environmental and health impacts. Becoming a U.S. Department of Education Green Ribbon School is a two-step process. The first step is to complete and submit this form to be selected as a nominee by an eligible nominating authority. The second step of the process requires signatures for the nominee package that will be sent to the U.S. Department of Education (ED).

ED selects honorees from those presented by eligible nominating authorities nationwide. Selection will be based on documentation of the applicant's high achievement in the three ED-GRS Pillars:

Pillar I: Reduce environmental impact and costs.

Pillar II: Improve the health and wellness of students and staff.

Pillar III: Provide effective environmental and sustainability education, incorporating STEM, civic skills and green career pathways.

Schools demonstrating exemplary achievement in all three Pillars will receive highest rankings. It is important to document concrete achievement. It will help you to assemble a team to complete the application. This team might include: a facilities manager, physical education director, food services director, curriculum director, finance department representatives, teachers and students. You should consult the ED-GRS [resources page](#) for standards, programs and grants related to each Pillar, Element and question. This is an excellent clearinghouse of resources for all schools, not just those who apply.

The questions in this application will help you demonstrate your high achievement in these Pillars as well as provide space for you to include pertinent documentation. You will receive points when you provide documentation for your answers. **Applications are due by midnight December 14, 2016.**



Note that if selected for nomination to ED-GRS, the school principal and district superintendent must be prepared to certify that each of the statements below concerning the school's eligibility and compliance with the following requirements is true; however, 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 K-12. (Schools on the same campus with one principal, even a 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 as 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. 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.

School Contact Information

School Name: [Bethany Christian Schools](#)

Street Address: [2904 S Main St](#)

City: [Goshen](#) State: [Indiana](#) Zip: [46526](#)

Website: www.bethanycs.net

Facebook page: www.facebook.com/BethanyChristianSchools/

Principal Name: [Hank Willems](#)



Principal Email Address: jhwillems@bethanycs.net Phone Number: (574) 534-2567

Lead Applicant Name (if different): [Calvin Swartzendruber](#)

Lead Applicant Email: cfswartzendruber@bethanycs.net Phone Number: (574) 534-2567

<p>Level</p> <p><input checked="" type="checkbox"/> Elementary (PK - 5 or 6)</p> <p><input type="checkbox"/> K - 8</p> <p><input checked="" type="checkbox"/> Middle (6 - 8 or 9)</p> <p><input checked="" type="checkbox"/> High (9 or 10 - 12)</p>	<p>School Type</p> <p><input type="checkbox"/> Public</p> <p><input checked="" type="checkbox"/> Private/Independent</p> <p><input type="checkbox"/> Charter</p>	<p>How would you describe your school?</p> <p><input type="checkbox"/> Urban</p> <p><input checked="" type="checkbox"/> Suburban</p> <p><input type="checkbox"/> Rural</p>	<p>District Name</p> <p>Bethany Christian Schools</p> <hr/> <p>Total Enrolled:</p> <p>295</p>
<p>Does your school serve 40% or more students from disadvantaged households?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>% receiving FRPL: 19%</p> <p>% limited English proficient: 3%</p> <p>Other measures:</p>		<p>Graduation rate: 95%</p> <p>Attendance rate: 97%</p>

Application Outline:

<u>ED-GRS Pillars and Elements</u>	<u>Points</u>
Cross-Cutting Question: Participation in green school programs	5 points
Pillar I: Reduce environmental impact and costs: 30%	
Element 1A: Reduced or eliminated greenhouse gas (GHG) emissions Energy Buildings	15 points
Element 1B: Improved water quality, efficiency, and conservation Water Grounds	5 points
Element 1C: Reduced waste production Waste	5 points



Hazardous waste	
Element 1D: Use of alternative transportation	5 points
Pillar II: Improve the health and wellness of students and staff: 30%	
Element 2A: Integrated school environmental health program Integrated Pest Management Contaminant controls and Ventilation Asthma control Indoor air quality Moisture control Chemical management	15 points
Element 2B: Nutrition and fitness Fitness and outdoor time Food and Nutrition	15 points
Pillar III: Provide effective environmental and sustainability education, incorporating STEM, civic skills and green career pathways: 35%	
Element 3A: Interdisciplinary learning about the key relationships between dynamic environmental, energy and human systems	20 points
Element 3B: Use of the environment and sustainability to develop STEM content, knowledge, and thinking skills	5 points
Element 3C: Development and application of civic knowledge and skills	10 points
Total	100 points

Summary Narrative: Provide an 800 word maximum narrative describing your school’s efforts to reduce environmental impact and costs; improve student and staff health; and provide effective environmental and sustainability education. Focus on unique and innovative practices and partnerships.

Bethany Christian Schools is a parochial school encompassing grades 4-12, located on the south side of Goshen, Indiana. The school was started in 1954, and since its inception, care for the environment, community, and health and wellness have been key components of the educational programming. Bethany has been recognized locally for its unique and innovative approaches, winning several awards and being covered on a regular basis by local media.

In 2014, Bethany embarked on a capital campaign focusing on three areas of sustainability; technology, finances, and environment/energy. The third aspect of this campaign made possible the installation of a full-fledged HVAC system in the old portion of the building to improve indoor air quality and heating efficiencies, installation of a geothermal wellfield for operation of the HVAC system, installation of a 3.6 kW wind turbine, and solar panels that can provide 77 kW of electricity. The campaign also funded insulation in the roof over the old portion of the building where there was no insulation. Restrooms were updated with low-flow fixtures, and hallway and parking lot lights were retrofitted with LEDs. Skylights were also preserved and enhanced to provide natural lighting. These efforts, along with other initiatives, have provided significant



reductions in energy and resource demand, along with waste reduction. Paper use has been reduced 31%, water consumption has been cut 19%, energy consumption reduced 31%, and greenhouse gas emissions lowered by 12%.

Bethany participates in school-wide recycling, accounting for a diversion of 24% of our waste from the local landfill. Food scraps from our cafeteria are composted and used on our school garden, which provides fresh produce for the school's salad bar, as well as serving as an educational opportunity for students to learn about gardening and sustainable living. Our large biannual fish fry fundraiser has also become a learning opportunity for students and the general public. Food scraps and paper products are now composted, rather than going in the trash. At the most recent fish fry, 12 cubic yards of compostable material was diverted from the landfill.

Environmental and sustainability concepts are taught in multiple courses, from 4th-12th grade. In the lower school, students study the traditional energy and environment concepts, while taking advantage of a multitude of field trips to local parks and environmental centers.

In high school, most students take Environmental Science. A highlight of this course includes two weeks outdoors studying the plants and organisms in our retention pond, which was planted with native species in 2006 by students.

Other unique activities include: Compiling Riverwatch data, learning about gardening in the school garden, working with the city forester, and touring an organic farm, drinking water plant, wastewater treatment plant, and a recycling center.

During a unit on renewable energy, Environmental Science students host students from the neighboring public elementary school. Our high school students teach these 5th graders about fossil fuels, wind and solar power, and conservation. They compare electrical consumption of appliances, design wind turbine blades to compare voltage output, and use mini solar panels to study factors that affect the amount of energy created. Also led by our students, first graders from another local elementary school come to Bethany to learn about plants and animals in our retention pond.

Biology students also spend time outdoors. During a unit on botany, they identify and sketch trees on the school grounds as well as wildflowers in the woods. During an ornithology unit, they identify birds on the school grounds and at local nature centers.

Experiencing the outdoors is an important part of education programming at Bethany. At the beginning of the school year, most students participate in 1-2 days of activities outdoors. Fourth and fifth graders build primitive shelters in the woods, and find and eat wild edibles. Sixth and seventh graders participate in outdoor education classes. The 8th graders have an overnight campout, learning wilderness survival skills. Ninth grade students spend two days at a local camp, where they do a climbing wall, an ecology scavenger hunt, swim, canoe, and cook over fires, while the 11th graders take a canoe trip.

Because Bethany is a private school, students must provide their own transportation. The majority of students carpool, and many bike or walk during the warmer months. Bethany also holds an annual Bike/Walk to School Day, with nearly half of all students participating.



Every September, high school students and faculty spend one afternoon walking at a local park instead of going to class. The event raises awareness of how easy (and enjoyable) it is to exercise. Outdoor sports are included in our PE curriculum, and students also have the opportunity to participate in free play during lunch and recess times. Employees are encouraged to meet health and fitness goals. Annual health screenings reward meeting benchmarks or documenting progress towards lowering BMI and blood pressure.

1. Is your school participating in a local, state or national school program which asks you to benchmark progress in some fashion in any or all of the Pillars?

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

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

Yes No Award(s) and year(s)

2006 Urban Conservation Award from the Elkhart County Soil and Water Conservation District, awarded to Bethany Christian High School Environmental Science Program

2007 Teacher of the Year awarded to Amy Thut, Environmental Science Teacher, from the Elkhart County Soil and Water Conservation District

2008 Indiana Envirothon Team, First Place at the Northeast Regional Contest held at the Merry Lea Environmental Center on March 19

2009 Indiana Envirothon Team, Third Place at the Northeast Regional Contest held at the Merry Lea Environmental Center on March 25

Optional work: Certain questions have been labeled optional. These questions require more research than the applicant may have capacity to answer or the school currently may not be tracking the requisite data. Answering these questions will provide reviewers a more complete view of your green efforts. However, if you do not have the capacity to answer the question in the format it is asked; please provide either estimates or plans of how you intend to begin collecting this data.

Pillar I: Reduced Environmental Impact and Costs

Energy

1. **(Optional)** Can your school demonstrate a reduction in Greenhouse Gas emissions? Yes No

Percentage reduction: 12%

Over (m/yy - m/yy): 7/13 – 6/16

Initial GHG emissions rate (MT eCO₂/person): 2.36



Final GHG emissions rate (MT eCO₂/person): 2.07

How did you calculate the reduction? Our solar website calculates that we have saved 170,000 lbs of CO₂ emissions over the last 14 months.

2. Has your school received EPA ENERGY STAR certification or does it meet the requirements for ENERGY STAR certification?

Yes No Year(s) and score(s) received: We are in the process of preparing our application for first-time certification, but have not yet obtained full metrics to determine a score. We are confident that we will meet the requirements for certification.

3. (Optional) Has your school reduced its total non-transportation energy use from an initial baseline?

Yes No

The most recent renovation brought the old part of the school up to standard in terms of ventilation requirements (prior to 2015, the old part of the school did not have any forced ventilation and there were 0 room changes/per hour). Adding an HVAC system increased our energy consumption, but this was offset and ultimately reduced by the use of geothermal wells, solar/wind production, and adding insulation to the old portion of the building that did not have insulation.

Current energy usage (kBTU/student/year): 15,561

Current energy usage (kBTU/sq. ft./year): 47.3

Percentage reduction: 31%

Over (m/yy - mm/yy): 7/13 – 6/16

How did you document this reduction? This was calculated based on our utility bills for natural gas and electricity.

4. What percentage of your school's energy is obtained from:

On-site renewable energy generation: 12% Type: Solar and wind

Purchased renewable energy: 100% Type: We are signed up with our utility (NIPSCO) for all of our electric to come from wind and solar sources.

Participation in USDA Fuel for Schools, DOE Wind for Schools or other federal or state school energy program: N/A

5. In what year was your school originally constructed? 1954

What is the total building area of your school? 97,000 sq ft.

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



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

For renovated building(s): Percentage of the building area that meets green building standards:

Certification and level: Total renovated area:

Water and Grounds

7. **(Optional)** Can you demonstrate a reduction in your school's total water consumption from an initial baseline? Yes No

Average Baseline water use (gallons per occupant): 389

Current water use (gallons per occupant): 315

Percentage reduction in domestic water use: 19%

Percentage reduction in irrigation water use: This data is not available.

Time period measured (mm/yyyy - mm/yyyy): 01/2012 – 11/2016

How did you document this reduction (ie. ENERGY STAR Portfolio Manager, utility bills, school district reports)?: This was based on utility bills.

8. What percentage of your landscaping is considered water-efficient and/or regionally appropriate?: 12%.
Types of plants used and location: Trees and bushes, some in landscaped areas and some surrounding areas of our athletic fields, and some un-mowed grass areas also around the athletic fields.

9. Describe alternate water sources used for irrigation. (50 words max)

Our irrigation water comes from on-site wells. We are exploring the possibility of collecting run-off rainwater to use for irrigation.

10. Describe any efforts to reduce stormwater runoff and/or reduce impermeable surfaces. (50 words max)

About half of our parking lot is either gravel or has dry wells to contain the stormwater. Another third of the parking lots and about half of our building drains into our wetland retention pond that is used as an outdoor lab for Environmental Science classes.

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. (50 words max)

We have a backflow preventer at the source entrance. The City of Goshen municipal water source is fully compliant with municipal drinking water standards.

13. Describe the program you have in place to control lead in drinking water. (50 words max)



Our first step was to test all drinking water and food prep sources in late 2016. One faucet that was found in non-compliance was replaced. Currently the plan is to retest every five years.

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

10.5% of the school's 33 acres is ecologically beneficial because it is landscaped with mature trees, unmowed grass, native bushes and plants, or an ecologically diverse retention pond.

Waste

15. (Optional) What percentage of solid waste is diverted from landfilling or incinerating due to reduction, recycling and/or composting? 23.8%.

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): 41.6 cubic yards per month is collected by garbage service.

B - Monthly recycling volume in cubic yards (recycling dumpster sizes(s) x number of collections per month x percentage full when emptied or collected): 12 cubic yards per month is recycled.

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): 1 cubic yard of food waste from the cafeteria is composted each month. The compost is used in the school garden to grow vegetables for the cafeteria.

Recycling Rate = ((B + C) ÷ (A + B + C) x 100): 23.8% of our waste is recycled or composted.

Monthly waste generated per person = (A/number of students and staff): 0.12 cubic yards of waste are generated per person, per month.

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? We currently do not use post-consumer material paper content. However, with each student having a computer we have reduced the amount of paper used (31% reduction from 2011-2015) since the implementation of the 1 to 1 laptop program and many assignments are completed and turned in electronically.

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

Flammable liquids 0.25 kg/year	Corrosive liquids 0	Toxics 0.10 kg/year	Mercury 0	Other: 0
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How is this measured? The volumes/masses of wastes produced are measured in the collection containers in the chemistry lab at the point of generation.

How is hazardous waste disposal tracked? Quantities of hazardous waste produced are recorded in a generation log, which is maintained by the chemistry teacher.

Describe other measures taken to reduce solid waste and eliminate hazardous waste. (100 word max)

Cleaning products that are used are considered green and non-hazardous. The elimination of the photography darkroom has eliminated the production of photographic chemical waste. The chemistry lab has eliminated mercury compounds and mercury-containing equipment. Toxic chemicals have been mostly phased out of experiments, and corrosive liquids undergo elementary neutralization. Flammable liquids are collected and disposed through a licensed treatment, storage, and disposal (TSD) company.

18. Which green cleaning custodial standard is used? A couple of the products we use were certified by the EPA's Design for the Environment program. Other items like vinegar that we use for cleaning some things and water and microfiber rags for cleaning the windows don't really need certifying.

What percentage of all products is certified? Approximately 10%. A couple of the products we use were certified by the EPA's Design for the Environment program. Other items like vinegar that we use for cleaning some things, and water and microfiber rags for cleaning the windows don't really need certifying.

What specific third party certified green cleaning product standard does your school use? None

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)

Because Bethany is a private school, students travel from a fairly wide radius. During the fall and spring seasons, when the temperature is warmer, 51.3% of students carpool, 8.5% of students bike, 4.9% of students ride a Bethany bus or city trolley, and 1.3% of students walk. (Our school does not provide bus service for all students. There are only two bus routes that serve students from two neighboring towns.) During the colder winter months, 58% of students carpool, 4.5% of students ride a Bethany bus or city trolley, and 0.4% of students walk.

Many students and faculty have participated in our school's Bike or Walk to School Day held annually in May for the last seven years. This event encourages students and faculty to bike or walk for the health of our bodies and the health of our planet. The total number of participants for this day has ranged from 65-85 people, and the miles covered have ranged from 208-398 miles in a given year.

How is this data calculated? (50 word max) This data was calculated through an online student survey conducted in November 2016, which 224 students (75% of the student body) responded to.

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: (50 word max) [Our school is connected to an extensive city bike path system that permits many students and employees to bike to work. This path system goes throughout the city of Goshen and also connects to other nearby towns. A competition is held each year to award those who bike the most.](#)

21. Describe how your school transportation use is efficient and has reduced its environmental impact. (50 word max) [First, Bethany utilizes several sizes of school vehicle to match the size of the group to be transported with the size of the vehicle avoiding large vehicles transporting small numbers of students. Second, Bethany vehicles are transit style buses that get better gas mileage and are designed more efficiently.](#)

22. Describe any other efforts toward reducing environmental impact, focusing on innovative or unique practices and partnerships. (100 word max) [Large school events also provide educational opportunities for our students and the general public. Students and staff worked in the spring of 2016 to implement composting into our biannual fish fry fundraiser, which feeds 1500-3000 people. The new practice is to compost the food scraps and paper products, rather than sending them to the landfill. At the most recent fish fry, 12 cubic yards of compostable material were transported to a local farmer, who uses it to attract worms and grubs to feed his ducks.](#)

Pillar 2: Improve the health and wellness of students and staff

Environmental Health

1. **(Optional)** What is the volume of your annual pesticide use (gal/student/year)? Describe efforts to reduce use: [We use about 0.06 gallons per student per year. We try to use as little as possible as a general practice, allowing weeds in some areas.](#)
2. 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. [Employee and student policy prohibits smoking on campus and in all school vehicles.](#)
 - Our school has identified and properly removed sources of elemental mercury and prohibits its purchase and use in the school. [The use of mercury-containing compounds is prohibited in chemistry labs by the Chemical Hygiene Plan. All mercury thermometers have been appropriately disposed.](#)
 - Our school uses fuel burning appliances and has taken steps to protect occupants from carbon monoxide (CO). [Boilers and water heaters are in specified mechanical rooms with outside air supplies](#)



and exhausts. Gas appliances used in the kitchen are under an exhaust hood. We also have the required minimum fresh air introduced to the building on a daily basis.

Our school has identified any wood playground or other structures that contain chromate copper arsenate and has taken steps to eliminate exposure. Our playground equipment is not constructed of wood.

3. Describe how your school controls and manages chemicals routinely used in the school to minimize student and staff exposure. (100 word max) Chemistry labs use the smallest possible quantities of hazardous chemicals needed. Chemicals are stored in a locked storage in appropriate containers and segregated by hazard class. Cleaning chemicals are used sparingly, and green cleaners are used when possible.

4. Describe actions your school takes to prevent exposure to asthma triggers in and around the school. (100 word max) Air filters are replaced on a regular basis. See #5 below.

5. 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. (100 word max)

Leaks have been virtually eliminated do to a new roof. Air conditioning has been installed throughout the building to eliminate excess humidity. Mold has not been an issue at this point.

6. Our school has installed local exhaust systems for major airborne contaminant sources. Yes No

7. 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. (100 word max)

We have a twice a year preventative maintenance program for all of our heating and cooling systems provided by a local professional service to keep the systems in peak working order.

8. 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. (100 word max)

All of our systems are current with ventilation codes. Our 2006 edition was designed to meet code and our most recent construction effort brought the older part of the building into compliance with the codes.

9. 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. (200 word max)

We have a twice a year preventative maintenance program for all of our heating and cooling systems provided by a local professional service to keep the systems in peak working order.

Nutrition and Fitness



10. 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. (100 word max each)

Our school has an on-site food garden. We have kids planting, caring for, and harvesting tomatoes, peppers, squash, cucumbers, and sweet potatoes.

Our school garden supplies food for our students in the cafeteria, a cooking or garden class or to the community. Our school garden supplies vegetables to use on our salad bar.

Our students spent at least 120 minutes per week over the past year in school supervised physical education. This is true for all Bethany students.

At least 50% of our students' annual physical education takes place outdoors. We play flag football, tennis, Ultimate Frisbee, mushball, lacrosse, and several other games outside, weather permitting.

Health measures are integrated into assessments. Physical Education students record their resting and exercise heart rates during a variety of individual and team sports.

11. Describe the type of outdoor education, exercise and recreation available. (100 word max)

We offer a wide range of outdoor sports in our PE curriculum. The sports we most commonly participate in are tennis, flag football, Ultimate Frisbee, mushball, lacrosse, golf, and fitness activities such as running the mile. Our students also have the opportunity to participate in free play during lunch and recess times throughout the day. The entire school has also taken impromptu all-school recesses on the first warm day in the spring, and an unusually warm day in early December.

12. Describe any other efforts to improve nutrition and fitness, highlighting innovative or unique practices and partnerships. (100 word max)

We currently use heart rate monitors in most PE classes which allow students to learn the benefits of exercising in a healthy heart zone. The monitors are Bluetooth compatible and can be projected onto the wall so students can assess their own fitness levels while participating in various activities. Students can later go online to their individual accounts and see the progress they have been making over the course of the year.

Every September, high school students spend one afternoon walking at a local park instead of going to class, in an event called "Fitness at Fidler (Pond Park).

Pillar 3: Effective Environmental and Sustainability Education

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. (200 word max)



Environmental and sustainability literacy are required in numerous courses, across the grades, as described below. Each of these courses encourages students to reflect on their own environmental impacts as well as opportunities for sustainable use of resources.

Environmental and sustainability concepts are integrated throughout the curriculum. (200 word max)

Environmental and sustainability concepts are taught in multiple courses, from 4th-12th grade. In the lower school, the fourth grade studies how ecosystems are made of many parts, how humans impact those parts, and how the biblical concept of Shalom includes being in relationship with all of God's creation. Fifth grade students learn about earth's processes, biomes, energy, and water. Sixth grade students study renewable and nonrenewable energy and natural resource conservation. Eighth grade students track and compare energy use in homes, throughout the U.S., and around the world.

In the high school, most students take Environmental Science. This course offers students the opportunity to investigate our local environment and to explore the interrelationships between different environments and the living world. Special emphasis is placed on our local ecosystems, including wetlands, watersheds, and soil. Global topics are also discussed, including population growth, natural resources, energy, and climate. The primary goal is to understand the role of humans in affecting and responding to changes in our local and global environment.

High school Bible classes also address issues of environmental sustainability. Students study pacifism and its connection to non-violent environmental activism and stewardship of resources, including stewardship of environmental resources like energy.

Environmental and sustainability concepts are integrated into assessments. (200 word max)

Each course that teaches environmental concepts has its own assessments woven into the course.

In Environmental Science, students complete assessments throughout the year on topics such as ecology, wetlands, soil, population growth, natural resources, waste, energy, climate change, and sustainability.

The Environmental Science course also includes projects for students to show evidence of their learning. Students create a booklet about our retention pond on campus, which was planted with native species in 2006 by high school students. The booklet includes sketches of plants and aquatic organisms, a map of plants in and around the pond, a food web, and research about species in the pond. In the fall, students compile data from our Riverwatch analysis, answering questions about the health of the Elkhart River. Finally, students develop a presentation on conservation issues, such as endangered species or a threatened ecosystem.

During second semester, students prepare presentations on topics such as waste (i.e. food or electronic), fossil fuels, and ways to reduce oil consumption. At the end of the year, students research a recipient of the Goldman Environmental Prize. Then they write and illustrate a children's book about this individual and his or her contribution to environmental care.

Students evidence high levels of proficiency in these assessments. (100 word max)



Many student projects illustrate strong comprehension of environmental concepts. Pond booklets show accurate species identification and mapping, and logical food web connections between species. Riverwatch projects show accurate calculations of data and logical interpretation of the results. Student presentations on environmental issues reveal critical thinking about topics and creative problem solving for environmental problems. The children's books about Goldman Prize winners show student understanding of the challenges faced by grassroots environmental activists, and the courage they exhibit to fight for justice. These performance assessments illustrate high levels of proficiency by the students.

Professional development in environmental and sustainability education are provided to all teachers. (200 word max)

After significant renovations to the school for our Campaign for Sustainability, the Maintenance Director gave all teachers a tour of our geothermal heating and cooling system, and discussed ways we have reduced electricity usage through more efficient lighting inside and out.

Each teacher at Bethany is allocated \$400 per year for professional development. In past years, the Environmental Science teacher has used some of that funding to attend the Environmental Education Association of Indiana Conference and the Hoosier Association of Science Teachers Conference.

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: **Due to our small size, we are not able to offer this course.** 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? (200 word max)

Fifth grade students each take home an energy-saving kit from NIPSCO (Northern Indiana Public Service Company). They measure water and electricity usage to compare usage before and after using the energy saving units from NIPSCO.

Ninth grade Environmental Science students have a variety of activities to work on these skills. During the Hoosier Riverwatch study, students collect data following scientific protocol for the chemistry tests, biological tests, and habitat assessment. Students use math skills to calculate this data. To better understand the Elkhart River Watershed, students use Google Earth to evaluate riparian corridors. To analyze data from the Schoolyard Biodiversity Lab, students entering data onto a spreadsheet to make a graph of the relationship between the number of plant species and the number of animal species. During a unit on renewable energy, students use a Kill-a-Watt meter to compare electricity consumption in appliances. They design cardboard wind turbine blades to compare voltage output, and they use mini solar panels to study factors that affect the amount of energy created.

4. How does your school use sustainability and the environment as a context for learning green technologies and career pathways? (200 word max)



Sixth grade students take a tour of our school building to learn about our wind turbine, solar panels, geothermal heating and cooling system, and energy-efficient lighting. These students also go to the Cook Nuclear Power Plant in Michigan to learn about nuclear power.

Environmental Science students have multiple encounters with local environmental professionals, exposing them to various types of careers. Students take tours of a local drinking water plant and wastewater treatment plant, where they meet engineers, lab technicians, and managers of these utilities. Students participate in an electroshocking demonstration with the aquatic biologist of Elkhart, during which time they learn about careers in fisheries. Students work with a naturalist from Elkhart County Parks while collecting macroinvertebrates in the Elkhart River. During a unit on soil ecology, students meet a local organic farmer. Students tour a recycling center in Elkhart, where they learn about careers in waste management. Finally, students work with the Goshen City Forester to help prepare for Arbor Day.

5. Describe students' civic/community engagement projects integrating environment and sustainability topics. (200 word max)

Each year, 9th grade Environmental Science students conduct physical, biological, and chemical research on the Elkhart River at the County River Preserve. We submit our data to the Hoosier Riverwatch Volunteer Water Quality Monitoring website.

During a unit on Renewable Energy, 9th grade Environmental Science students host 5th graders from Waterford Elementary School for a 1-2 hour lesson on electricity generation. Our high school students teach these 5th graders concepts about fossil fuels, wind power, solar power, and electricity conservation in 10 hands-on stations during that time period.

Bethany also participates in the Adopt-a-Highway program. Environmental Science students clean a one-mile portion of highway close to the school, collecting many bags of trash and litter and making the community a cleaner, more attractive place to live.

6. Describe students' meaningful outdoor learning experiences at every grade level. (200 word max)

Every year in the fall semester, nearly all students have a one to two-day outdoor experience off-campus. Fourth and fifth grade students go to Camp Mack for a day to study colonial and Native American life. They build primitive shelters in the woods, find and eat wild edibles, and play games applicable to those time periods and cultures. Sixth and seventh grade students spend two days at Amigo Center for their "Wilderness Experience", during which time they participate in outdoor education classes including nature games, canoeing and other outdoor cooperative activities. Eighth grade students have an overnight campout at Camp Friedenswald, learning wilderness survival skills including fire building, shelter building, orienteering, and canoeing. Ninth grade students spend two days at Camp Mack for a retreat, during which time they do a climbing wall, swim, do an ecology scavenger hunt, canoe, and cook over fires. Eleventh grade students take a day-long canoe trip on the Elkhart River during "High School Day Away".

Most years the high school offers a course during "January Term," such as Winter Sports (cross-country skiing, ice skating, downhill skiing, etc.) or Bike Camping (bike maintenance and trip planning in January, a 4-day bike camping trip in June).



7. Describe how outdoor learning is used to teach an array of subjects in contexts, engage the broader community, and develop civic skills. (200 word max)

Fifth graders use the school garden to learn about botany and nature's recyclers. In the spring, they walk around the school grounds and the dam looking for evidence of new growth. They take field trips to Merry Lea Environmental Learning Center to discuss water quality and usage, and trophic relationships - as well as basic care of the environment.

Environmental Science students spend two weeks outdoors studying the plants and organisms in our retention pond. They visit the Elkhart River five times to study fish, go canoeing, and assess the chemistry, habitat, and biology at Baintertown dam. They do a lab on the school grounds to compare the diversity of animal species in different plots. They learn about composting and gardening through their work in the school vegetable garden.

Biology students spend time outdoors in the spring. During a unit on botany, they identify and sketch trees on the school grounds as well as wildflowers in woods by the Goshen Dam. During an ornithology unit, they identify birds on the school grounds and local nature centers.

During Senior Bible, students have weekly meditation time, and are given the opportunity to wander outdoors on the school grounds for solitary reflection.

8. Describe your partnerships to help your school and other schools achieve in the 3 Pillars. Include both the scope and impact of these partnerships. (Maximum 200 words)

Bethany's Environmental Science teacher has partnered with two elementary schools over the last decade. Prairie View Elementary School first grade classes have come to Bethany to learn about plants and animals in our retention pond. Waterford Elementary fifth grade students have come to Bethany to learn about renewable and non-renewable energy. In both cases, Bethany ninth grade students have taught the lessons as the younger guests rotated between stations related to the topics.

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. (Maximum 200 words)

Beyond lessons and experiences in specific classes, students have chapel twice a week. Some chapels address environmental and sustainability topics. For example, students have led chapels on Earth Day related to care for the Earth. Our maintenance director also described the building renovations for sustainability, including the geothermal system, wind turbine, solar panels, and lighting efficiencies. One year an emphasis week focused on stewardship of resources, which raised awareness about unequal distribution of resources around the world. We frequently have guest speakers who address environmental topics, such as mission workers in Africa who discussed the effects of climate change on agriculture, and how farmers use conservation practices to mitigate the effects of climate change.