



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

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

Name of Principal:

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

Official School Name:

(As it should appear on an award)

*\*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.

Date:

(Principal's Signature)

Name of Superintendent:

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



District Name:

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:

### 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.

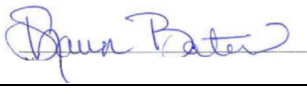
1. The school has some configuration that includes grades Pre-K-12.
2. The school is one of those overseen by the Nominating Authority which is highest achieving in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and 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:

Name of Nominating Authority:

(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:

### SUBMISSION

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

OMB Control Number: 1860-0509

Expiration Date: December 31, 2023

### Public Burden Statement

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

## Principia School – St. Louis, MO



### School Characteristics

<b>Level</b> <input checked="" type="checkbox"/> (X) Early Learning Center <input checked="" type="checkbox"/> (X) Elementary (PK - 5 or 6) <input checked="" type="checkbox"/> (X) K - 8 <input checked="" type="checkbox"/> (X) Middle (6 - 8 or 9) <input checked="" type="checkbox"/> (X) High (9 or 10 - 12)	<b>School Type</b> <input type="checkbox"/> ( ) Public <input checked="" type="checkbox"/> (X) Private/ Independent <input type="checkbox"/> ( ) Charter <input type="checkbox"/> ( ) Magnet	<b>How would you describe your school?</b> <input type="checkbox"/> ( ) Urban <input checked="" type="checkbox"/> (X) Suburban <input type="checkbox"/> ( ) Rural	<b>Total Enrolled – Early Learning Center – Upper School: 402</b> US: 164 MS: 60 LS: 110 PS: 39 ELC: 29  Graduation rate: 100% (2015-2021) Attendance rate: Fall 2021 = 97.1%
<b>Additional characteristics:</b> 52% boarding 48% day students 20% international 26 states represented 15 countries 8:1 student faculty ratio	<b>Does your school serve 40% or more students from disadvantaged households?</b> <input type="checkbox"/> ( ) Yes <input checked="" type="checkbox"/> (X) No	<b>% limited English proficient:</b> We have 13 different countries represented as F1 visa holders.	
<b>% receiving FRPL:</b> At Principia, a substantial need-based financial aid program exists to provide assistance to those families whose financial resources cannot meet all tuition costs. This is a grant program and is not required to be paid to the School. 53% of the student body receives financial assistance representing over 3.9M of aid. When students of Principia employees are included with their tuition discount, an estimated 93% of students receive financial aid.		<b>% total disadvantaged students – without double counting, provide the total percentage of students that are receiving FRPL and/or have limited English proficiency, and/or have learning disabilities:</b>  Approximately 20%	

## School Contact Information

School Name: Principia School	Street Address: 13201 Clayton Road, St. Louis, MO 63131	
City: St. Louis	State: MO	Zip: 63131
Website: <a href="http://www.PrincipiaSchool.org">www.PrincipiaSchool.org</a>	Facebook: <a href="https://www.facebook.com/PrincipiaSchool/">https://www.facebook.com/PrincipiaSchool/</a> Instagram: <a href="https://www.instagram.com/principiaschool/?hl=en">https://www.instagram.com/principiaschool/?hl=en</a> Twitter: <a href="https://twitter.com/PrincipiaSchool">https://twitter.com/PrincipiaSchool</a> YouTube: <a href="https://www.youtube.com/user/principiaschool">https://www.youtube.com/user/principiaschool</a>	
Principal: Tami Gavaletz (Head of School)	District NA	
Principal Email: Tami.Gavaletz@principia.edu	Principal Phone: 314-434-2100	
Lead Applicant and Position (if different): Lynne Scott - Sustainability Coordinator and Science Teacher		
Lead Applicant Email: lynne.scott@principia.edu	Lead Applicant Phone: 314-514-3024	

## Summary Statement

Principia is an independent school serving children from infancy through grade 12. The school is a student-centered, future-focused coeducational day and boarding school grounded on the teachings of Christian Science. Approximately 50% of Upper School and 20% of Middle School students are boarders, coming from around the country and world. Experiential education drives much of the learning and creativity—critical thinking, and character growth are at the heart of our program. Our core values are Excellence, Character, Diversity, and Love. These values drive community interaction and support an inclusive, welcoming environment.

The School is committed to growth in sustainable practices of all three pillars as evidenced by Goal 4 of our 2025 [Strategic Plan](#) which focuses on practicing sustainability “through innovative and active stewardship of its human, ecological, and financial resources.” At Principia, we utilize the United Nations Sustainable Development Goals as a foundational access point for students, faculty, staff, and administration to understand what sustainability is.

Principia sits on 360 acres of land in suburban St. Louis, and this land has been instrumental to the sustainable growth and development in all three pillars for the school. For Pillar 1 - Reduced Environmental Impact and Costs, Principia has focused largely on restoring land to create ecologically viable communities that serve as an important island of biological diversity in suburban St. Louis. Principia has restored 42 acres of forest and six acres of savanna, creating a space where students can access pond, stream, forest, and savanna ecosystems all within a 10-minute walk from the classroom.

Students feeling a sense of belonging and mattering is critical to their health and wellness. In support of Pillar 2 - Improved Health and Wellness of Students and Staff, Principia has three thriving affinity spaces that support the social and emotional health and wellness of our student body while also expanding perspective and developing awareness. These spaces specifically serve students of color, LGBTQ+, and international students, as well as their allies. Nearly half of the Upper School student body participates in at least one of these groups. There is also an adult affinity space for white awareness and accountability.

Principia's environmental and sustainability education permeates all levels of the school (Pillar 3 - Effective Environmental and Sustainability Education). Teachers utilize the outdoor resources (woods, savanna, ponds, stream) as authentic learning opportunities in science, language arts, social studies, and math. Students test water quality and soil, re-enact literature, identify trees, gather weather data, turtle track ([see our team!](#)), study macroinvertebrates, garden and more. The outdoor resources present at our school offer abundant and authentic avenues for authentic learning and discovery for both teachers and students.

A signature experience for the entire school that promotes sustainability education is the [Impact Challenge](#). Using the United Nations Sustainable Development Goals ([UN SDGs](#)), this project teaches students the fundamentals of sustainability and how we can emerge as change agents. Students at all grade levels choose one of the Goals to focus on and work in groups to affect change through specific projects and initiatives. See news articles [here](#) and [here](#). In February, the students present their work to an authentic audience of experts both from the St. Louis region and from around the country. They receive feedback from the experts, and through this showcase we collectively celebrate the impact we can make together towards the betterment of humanity and our planet. In the two years this event has taken place, a total of 94 projects, 4 schools, 273 students, and 35 professionals from local and national organizations have participated. In 2022, we are on track to welcome two additional schools to the event, expanding our reach and collectively supporting students as impactful change agents towards the Goals.

## Engagement, Benchmarking and Recognition

List the members of the team that helped prepare documentation and their role in the school

1. Lynne Scott - Upper School Science Teacher and Sustainability Coordinator
2. Doug Hoff - Outdoor Learning Coordinator
3. Robin Gamrath-Schauman - Lower School Assistant
4. Karin Heath - Middle School Dorm Parent
5. Joel Allen - Upper School Science Teacher
6. Jim Curry - Capital Projects Manager
7. Randall Grant - Director of Facilities
8. Alex Jesper - School Social Media Specialist / School Content Writer
9. Kyle Knudten - McClure Engineering - Engineering Professional for Energy Star Portfolio
10. Sustainability class students as reviewers

List any programs you are currently using to benchmark your progress in sustainability

1. Energy Star Portfolio Manager for utility consumption/reduction efforts
2. Ameren Pure Power and other utility statements
3. Andover System as our energy management system
4. Demand Response Program - Ameren Enel X
5. Trash, Recycling, and Compost hauler statements and records

List any recognition or awards you have received in the last five years related to your efforts in any of the pillars

1. 2021 Faculty Member Received High School Chemistry Teaching Award by the St. Louis chapter of the American Chemical Society (Pillar 3)
2. 2021 Six Upper School students led workshops at the Youth Empowerment Summit discussing topics related to diversity, inclusion, equity, education, and sustainability. (Pillar 2 & 3)



3. 2021—Two seniors accepted to the prestigious United Nations Association of the National Capital Area's Emerging Leaders program. (Pillar 3)
4. 2019 First Place Green Schools Quest winner (in the high school category) presented by the U.S. Green Building Council - Missouri Gateway Chapter (USGBC-MGC; Pillar 3)
5. 2019 Faculty Member Received St. Louis Science Center Award for Excellence in Teaching (Pillar 3)
6. 2019 Faculty presented at NSTA (Pillar 3)
7. 2019 Faculty, Staff and Students (both Middle School and Upper School) presented at Missouri Environmental Education Association (MEEA; Pillar 3)
8. 2018 Faculty presented at MEEA (Pillar 3)
9. 2017 Second place Green Schools Quest winner (in the high school category) presented by USGBC-MGC (Pillar 2 & 3)
10. 2017 Faculty presented at Sustainability Institute for Educators (Pillar 3)

## **Pillar I: Sustainability - Reduced Environmental Impact and Costs**

Principia has reduced our environmental impact through intentional land management and building design and operations. Beginning in 2015 with an Experiential Education Master Plan, Principia brought key stakeholders to the table (teachers, students, staff, administration, parents) and identified key areas of the 360-acre campus that would be important in supporting our educational programs and goals.

### **Energy and Greenhouse Gas**

- Goal 4 in our [Strategic Plan](#) outlines our drive toward energy optimization and the use of guidelines that are informed by LEED standards. The campus master plan update will establish an incremental pathway to achieve this goal and develop land and facility use guidelines to lower the School's carbon output and footprint. Ultimately the school desires to create an independent micro-grid through the use of solar panels and wind turbines. The plan also includes curriculum changes to ensure these choices are seen as cultural norms rather than rarities.
- Principia has purchased 100% Ameren Pure Power for eight years, substantially supporting green energy infrastructure in Missouri. Principia is also part of Ameren's Demand Response Program to relieve Ameren during peak energy usage.
- A substantial focus has been upgraded LED lighting as well as increased controls. BUG (Backlight, Uplight, and Glare) rated fixtures have been implemented on paths and roads that are optically controlled, only providing light where it is needed and reducing light pollution. Occupancy sensors are also incorporated into multiple places on campus, minimizing wasted energy.
- Principia has multiple sports fields and, in the last 18 months, has embarked upon a project that expands those fields to include six additional fields. All field lighting is high efficiency with high capacity for control. A dedicated lighting zone was developed for uplighting that continues to be dark sky compliant. The system incorporates dimming and timers to reduce light immediately following a game.
- A new field house (Simon Field House) is under construction, opening to student use Fall 2022. The building has already been prepared for solar power with a substation, conduit set-up, and necessary structural steel to accommodate the load. Peak generation for the Simon Field House will be 560Kwh and will represent close to 40% of the electric usage of the entire campus. In addition, electric vehicle parking spots will be included.
- Simon Fieldhouse features design elements to reduce energy consumption beyond code minimum performance requirements. Dual path air handling units were used to precondition the outside air for the facility to effectively function as utilization of dedicated outside air handling units for ventilation air. This element represents a great reduction in building heating and cooling

energy. Gymnasium areas are conditioned with single zone variable volume systems that incorporate demand control ventilation strategies, so the wide diversity in space use is leveraged to maintain zone requirements while minimizing energy consumption. This element represents great reduction in fan energy, as well as heating and cooling energy. The building's overall airflow load optimization represents not only electric savings in cooling and fan energy, but gas savings in the heating and reheat load reduction. Building envelope constructions are also above code minimum requirements, further suppressing the heating and cooling load demands of the systems. Overall, the design features have contributed to systems that are modeled to reduce energy consumption 56% below the code minimum requirements of ASHRAE 90.1-2015.

- Principia does not allow buses to idle when waiting for students. Parents are also informed of the need to not idle. Facilities work crews are asked to not idle their vehicles on campus.

## **Water and Grounds**

- Efforts began in 2015 with the removal of invasive bush honeysuckle on 16 acres of one of our forests. 2015 also marks the year the Lower School playground was redesigned to incorporate naturescapes as play structures. In 2016, the removal of a fence surrounding two ponds (old, remediated wastewater treatment from the '60's and '70's) provided access to the community. Along with this, honeysuckle was cleared from six acres around these ponds and a savanna planted. In 2017, a permaculture orchard was designed by students and installed. In 2018, additional gardens were incorporated for all levels of the school. Since then, honeysuckle removal and maintenance have continued to be done annually on a total of 48 acres and natives planted throughout the campus.
- An important partnership has formed between the facilities and sustainability departments with regular meetings discussing collaborative steps that can be taken together. One outcome has been for the sustainability department to grow native plants from seed that facilities then plants around campus. This has both improved and increased native habitat on campus. Facilities has also taken on native plants as a key and viable component of the plantings incorporated around campus. Since 2019, nine beds have been converted to natives for a total of 21 beds around the core campus area.
- The landscaping department at Principia mulches downed leaves and grass clippings and prioritizes leaving them on the ground as much as possible to return nutrients to the soil and support soil organism health. When leaves must be collected, they are turned into leaf mulch to be used on campus. Downed trees and limbs are chipped to be used as mulch on campus.
- Flush valves are incorporated across the school, utilizing the lowest amount of water possible.
- Irrigation water is managed through a series of sub-meters and timers seasonally from March through October. We delay irrigation based on recent and future rainfall to prevent overwatering. Rain barrels are used at downspouts at the Upper School Science rooms near gardens. We use low-flow fixtures throughout all buildings: the dorms, academic, and administrative buildings.
- School planting beds are being renovated into native beds to reduce water use. They are watered twice weekly with a hose-fed sprinkler for the first year to establish the plants, and then once a month June-August if conditions are dry. While the Permaculture Orchard has drip irrigation, no watering has been needed for the last three years because of the intentional permaculture design.
- Stormwater management utilizes rain gardens and natives wherever possible. Two rain gardens were added to the Lower School playground in 2015 when a renovation of the playground took place. There is another rain garden below our track and three more rain and/or retention ponds will be installed with the construction of Simon Field House.

## Waste

- The Simon Field House is replacing a very outdated field house constructed in the 1960's. Principia's approach was to use selective demolition, hiring a contractor to repurpose as much of the field house as possible. All porcelain was recycled in downtown St. Louis, the basketball court maple flooring was repurposed, bleachers and basketball nets donated, and metal was salvaged and recycled (aluminum, copper, sheet metal, cast iron). Concrete was jackhammered for rebar to be recycled.
- Smart waste transition is also utilized throughout the school (not just the Field House). Old furniture that is no longer needed and cannot be reused is always donated or sold.
- Hazardous waste is disposed of properly with a focus on source reduction wherever possible. Over the years, the Chemistry department has gone from requiring an \$8,000/year hazardous waste budget to zero, simply by changing the labs conducted with students (all while maintaining academic integrity).
- Metal recycling is collected and picked up on campus 1x/month.
- There are 2, 6-yard containers picked up 1x/week for single stream recycling. Each container is not always full. The Business Office has one, 6-yard container picked up once every two weeks. In the last 10 years, with the incorporation of composting and single stream recycling, trash pick-up has shifted from a 5x/week schedule to 1x/week.
- In addition to single stream recycling, the School collects and recycles batteries, expo markers, pens and mechanical pencils, and glue sticks. In the dorms, students pass along electronics to other students prior to recycling them. A few highly skilled students repair the broken items.
- There is a 20 yard bin for the collection of books and newspapers. Principia is paid by the pound for these materials and to date has earned \$340 from the books and paper recycled.
- The School responsibly recycles all electronics by contracting with R2 and RIOS certified [Midwest Recycling Center](#) to provide an annual electronics recycling event for both the Principia community and the greater St. Louis area.. Each year since 2016, approximately 9,000lbs of electronic waste has been recycled through MRC and kept out of the landfill.
- FSC 30% post consumer fiber recycled paper is used for all printers in the school.
- Compost is removed by St. Louis Composting, who comes to collect kitchen compost three times each week. Compost is also collected at the school business office and at the dormitories weekly. Any food that cannot be repurposed or reused is composted.
- Trays were eliminated four years ago as a result of student research that discovered food waste increases with tray usage and each tray used requires 2.5 gallons of water to wash, plus soap.
- All tableware, cups and flatware are ceramic, glass and stainless steel, and are washed and reused for each meal. All to-go or single-use items are compostable and are used for field trips or for meals-to-go for boarding students and residential families.
- Any prepared food that hasn't been on the line is donated to Sunshine Ministries, and all food waste from the kitchen and in the dining room is composted. SAGE, Principia's dining services provider, prepares food in small batches, to lessen waste and cut down on costs.

## Transportation

- Principia School is a private institution so there is no typical bus transportation system. Because of our close affiliation with Principia College in Elsah, Illinois, approximately 10% of our students live in Illinois and attend school "across the river" in St. Louis. Therefore, there is a daily bus that travels between Elsah, IL and the St. Louis School campus. About 50% of our high school students and 15% of our middle school students are boarders, so they simply walk, bike, or skateboard to school. The "day students" typically come by personal vehicle, occasionally carpooling, which is encouraged.



- **Vehicular Fleet:** The school owns 4 full-size yellow buses, 4 mini-buses, 6 mini-vans, and recently made the commitment to hybrid electric cars with the purchase of 5 Prius cars. Principia asks all drivers to not idle vehicles. This includes buses and Principia own vehicles. In addition, a no idling sign has been placed at the Early Learning Center.
- **On Campus Housing:** The school rents out approximately 35 different apartment and housing units to employees, most of whom have students which attend here. The commute of these employees and their children is between  $\frac{1}{5}$  to  $\frac{1}{2}$  mile from campus.

## **Purchasing**

- Principia focuses on purchasing equipment that maximizes efficiency. The goal of our building system designs are to meet or exceed ASHRAE 90.1 standards. All appliances purchased for the school are Energy Star rated.
- All new carpets installed are 100% post-consumer recycled.
- Principia uses CA standards for VOCs in all paint utilized on campus.
- Principia utilizes acoustical panels, curtains, carpeting in classrooms where possible, and cabinets that absorb sound to help provide an environment conducive to learning.
- In the contracts department, Principia encourages purchasing locally and through women owned businesses whenever possible.

## **Pillar II: Health - Improved Health and Wellness of Students and Staff**

Principia addresses the health and wellness of students and staff by both mental and physical means. Curricular programming, safe spaces, fitness and nutrition, and green cleaning products are just a few of the ways we work to ensure students and staff are cared for.

### **Environmental Health**

- Principia manages indoor air quality to keep it virus free by filtering out .3-1.0 microns or larger. All rooftop units have MERV13 filters on them which service common and open areas. All classrooms have individual air handler units also with MERV13 filters and ionization options. The dorms (Aron and Canfield house) have ionization bars installed to help remove particulates. Air quality testing has shown that Principia's indoor air quality is higher than the outdoor air quality.
- SAGE, Principia's dining services provider, utilizes only EcoLab products for cleaning. These are all Green Seal Certified. Principia's custodial department uses Buckeye products, a local St. Louis company that also provides Green Seal certified products in bulk and concentrate to minimize waste and improve performance. Custodial has a station that calibrates chemicals to dispense the correct amount in order to minimize waste and ensure products are used properly. Principia has focused use on Green Seal products for 10 years.
- All potable water is purchased through county supply/provider Missouri American Water. All drinking fountain filters are replaced regularly and are cleaned by housekeeping to prevent any buildup of bacteria or particulates.

### **Nutrition and Fitness**

- In the Lower School P.E. curriculum, food groups are identified and students learn about them through simple, active games that build in exercise to the learning. Lower School also works with MYplate.com and what it means to have a balanced diet. Habits of focus include healthy eating, exercise, and staying clean.
- Middle School students are required to participate in sports programs 2 of the 3 seasons each school year (fall, winter, spring). This exposes students to new sports, healthy exercise habits,

and allows them to try new skills in a low-risk environment.

- Upper School students are required to participate in 9 of the 12 sports seasons in their high school career which helps students build healthy habits around exercise. Sports at Principia have a strong focus on sportsmanship and character. Upper School students also have an option to take classes around sports management as well as fitness and nutrition.
- Upper school students have athletic requirements for graduation but some do not prefer “traditional” sports, so two after-school “sports” are offered: Gardening and Eco PE. Eco PE has the students helping with land stewardship, as well as helping out on our Challenge Course by leading 3rd- through 5th-grade students in climbing and on-the-ground team building activities.
- After school, Principia employs one full-time athletic trainer to look after athletic games, practices, and competitions. The trainer is available immediately after school for personal injury care and rehabilitation. The trainer then makes rotations through practice and competitions but is available by call to respond to emergency situations. In addition, each head coach is required by MSHAA to be CPR and first aid certified.
- Principia utilizes SAGE Dining Services for all food preparation for day and boarding students. Approximately 60% of the food SAGE purchases and serves is from local, ecologically sound, fair and/or humane sources. In addition, their nutrition policy is to promote a healthy lifestyle. They serve cage-free, Certified Humane shell eggs, antibiotic- and hormone-free milk, and Seafood Watch products, in addition to preparing foods from scratch to reduce the use of processed foods.
- Principia has two gardens which produce a significant amount of vegetables in the spring and fall, which are also utilized in the kitchen. These include lettuces, tomatoes, cucumbers, carrots, beets, sweet potatoes, zucchini, yellow squash, edible flowers, and multiple herbs. Signs are posted at each food station, describing menu items and their corresponding nutrition category.
- Principia’s part-time garden manager comes to the dining room once or twice each week during food production time to give produce to the cooks. The cooks also go to the garden to harvest items on their own as needed.
- Since 2018, as a result of a student-created and implemented survey, Principia has implemented “Meatless Mondays”, saving approximately 400 lbs of meat each month.

### **Coordinated School Health Program**

- Human Growth and Development is taught beginning in 4th grade and continuing through Upper School. The curriculum begins with caring for yourself and others with hygiene and expands as appropriate through each grade level.
- Principia has a full-time round-the-clock campus security staff. Campus security handles personal safety, traffic control, emergency coordination and response, and building lockage. Personal safety is also a top priority and practiced regularly with intruder, tornado, earthquake, and fire drills in the academic buildings and dormitories. These responses are guided by written response plans available in each occupied area as well as trained personnel. Each activity is coordinated with Town and Country emergency response services, either police or fire. All outside doors in the academic building require a key card to enter.
- On-site health services: Principia has numerous levels of authority and staff to handle health problems. Our Director of Student Health Care oversees all student health records as well as administers any medication needed during the school day. She partners with the Athletic Trainer and our RN consultant when needed on specific student cases. She also oversees a team of four Christian Science nurses who are on duty 24/7 during the school weeks for our day and boarding students.
- The Christian Science nurses and Athletic Trainer attend athletic practices and events in the evening and on weekends. Throughout the school day, the academic building has an office staffed with a Christian Science nurse available for any student needs as well as a Quiet

Room for any student feeling unwell or needing a pause. The campus has a student wellness facility for the boarding students called Campus House which is also available 24/7 for any student needing a quiet atmosphere or 1:1 care. Campus House is also our quarantine and isolation facility. All student interactions related to health care by our Director of Student Health Care and CSNs are tracked (charted) in our Magnus Health Portal along with all required health related forms.

- Each portion of the campus is supplied with AED and other medical devices in case of an emergency and you can find 25 first aid kits that are restocked regularly. Principia also has a full-time student wellness staff, consisting of academic and mental health counselors.
- All faculty and staff are trained in CPR, Basic First Aid, and Detecting/Reporting Abuse. The residential counselors in both dorms as well as the Deans are also Mental Health First Aid certified. In addition, Science faculty take Lab Safety and Chemical Storage training every other year.
- Mental Health Program: Principia employs a full-time counseling team, which focuses on academic, college and career, and social/emotional learning. This team works to keep students updated on mental health issues, as well as solutions to these problems. A focus is placed on additional stress during exam periods in an attempt to aid students' quality of life when under immense workloads. If a student ever wishes to consult a counselor, they are always in their office and available to talk as well as schedule follow-up visits. In addition, there are several student-led affinity/advocacy groups to support people of color, the LGBTQ+ community, and those interested in mental health awareness.

### **Diversity, Equity, Inclusion and Mattering**

- In alignment with Goal 1 of our Strategic Plan we are in the process of developing a Mindful School Program that offers professional development for teachers to receive training. We've begun a "Tolerance through the curriculum" campaign to ensure students are learning through diverse experiences to grow in their understanding and empathy.
- Diversity, Equity and Inclusion (DEI) is central to student and faculty health and wellness as it ties to feeling a sense of belonging and mattering. Principia has developed a DEI cultural competency philosophy [statement](#) for the School.
- Principia has hired Dr. Jennifer Stollman as a consultant to provide coaching, professional development and community building for Principia's DEI program. She is helping the school to further our culture of belonging and mattering. She works with faculty, staff, individuals in the business office and residential life team (boarding program).
- There are three DEI coordinators at Principia School (Upper, Middle, and Lower), who work in partnership with the Principals at each level as well as with Dr. Stollman. These coordinators are tasked with creating a DEI Curriculum; helping co-plan, co-teach, model and observe DEI teaching; leading DEI professional development for faculty; supporting family education and engagement; and supporting a culture that reflects and supports our DEI vision.
- Principia holds between 3-5 professional development sessions a year for faculty/staff around DEI. Inclusion is folded into the expectation of teacher differentiation and best practice. Each teacher in their portfolio of teaching has a walk-through form that includes a column for DEI. Teachers are expected to apply their growing knowledge around inclusive practices to their classrooms. This first year they are encouraged to reflect and consider more intentionally than before how they are creating a classroom environment that considers multiple perspectives and calls out inclusivity, equity and diversity in positive and meaningful ways.
- Each year our school faculty and student body participate in the People of Color Conference. Six students from the Upper School participated in the Student Diversity Leadership Conference. This is a wonderful opportunity for both faculty and students to collaborate with students and educators across the country in the Independent School environment to expand capacity and skill building in the area of cultural competency.

- We have multiple student-created and led affinity spaces at the Upper School. Each group is well attended and supported by the student body as well as faculty and administration.
  - “The Difference” is an affinity space for students of color. The group meets weekly and provides an opportunity to share thoughts, experiences, and cultures with one another and the school. Approximately 40 students attend these meetings.
  - The LGBTQ+ student affinity space holds weekly meetings where students can confidentially share ideas and insights and where LGBTQ+ guest speakers have been invited to speak. Approximately 8 students have attended these on a regular basis. Additionally, the group hosts several Upper School events including but not limited to Day of Silence, I am Jazz, Trans Awareness, and Bisexual Awareness. (In 2020, the Day of Silence had 41% minimum Upper School student participation and 52% of 6th grade student participation.) A bulletin board in a prominent location featuring LGBTQ+ content is also displayed. In 2020, all Upper School Faculty went through LGBTQ+ Safe Zone Training.
  - The ISAP (International Students at Principia) is a weekly student-run affinity space which international students are invited to join. This club serves as a safe place for students to discuss cultural adjustments and concerns as well as celebrate their home culture. Students also use this time to create and plan our International Month celebrations. Our club presidents use this time to check in with members who may need support and brainstorm ways to foster inclusion and acceptance on campus. Approximately 25 students attend ISAP meetings regularly.

### **Pillar III: Learning - Effective Environmental and Sustainability Education**

Environmental and sustainability education are embedded in our curriculum, core values, and practices. Below are some of the ways in which this is illustrated.

#### **Curriculum and Assessment**

- Goal 3 of our Strategic Plan outlines our commitment to broadening environmental and sustainability education from our Early Learning Center through the Upper School.
- The Preschool 3 and 4 grades have a strong emphasis on using the outdoors in their classwork. Each grade is outside for between 1-3 hours each day. They focus on seasons/seasonal changes, nature exploration, building community & learning to be stewards of nature, developing an ecological identity and a sense of how they fit in their environment.
- Lower, Middle and Upper Schools maintain an IDEA Lab that is STEM focused and staffed by full-time teachers. As curriculum lessons are developed there is intentional tie to the United Nations Sustainable Development Goals. (Example: A recent unit combined 4th grade study of landforms/geology with STEM concepts requiring the students to build TarPuls that connect people from one land form to another, supporting UN Goals of Industry, Innovation and Infrastructure.)
- Cross grade level collaboration supports sustainability. For example, Lower School 4th grade joined with Upper School Sustainability Class to measure soil fertility through the [Soil Your Undies](#) challenge.
- In Middle School, 6th-grade students work with St. Louis city planners to generate ideas and action steps in order to address the City of St. Louis’s energy consumption and to shift to more sustainable practices. In 7th grade, students study genetically modified organisms and discuss their role in food security. The 8th-graders travel to Costa Rica and learn about agricultural practices around bananas and coffee while also studying the rich biodiversity present.
- Middle School’s 7th grade Integrated Studies dedicates a unit of study to the UN Sustainable Development goals. Students depict elements of their chosen goal on 3-D globes. Two years ago these globes were displayed at Longview Farm and students made presentations about

how they connected with their chosen goal as well as wrote artist statements about the goal's importance that were on display with the globes for the community to see.

- In the Upper School, Principia offers an elective sustainability class that uses the United Nations Sustainable Development Goals as a framework of entry to what sustainability is and how we can each affect change towards the betterment of humanity and our planet. Topics of focus in the class include: food security, climate change, biomimicry, population and cities.
- Pre-covid, Lower and Middle School Sustainability club students met regularly together to address various sustainability issues. (i.e. measuring paper towel waste and raising awareness about paper towel usage, encouraging less food waste etc..)
- Field and Natural History is a dual-credit course offered at the Upper School. Students utilize the ecosystems on campus to build their skills as naturalists as they focus on understanding ecosystem structure and function. Students identify trees, study forest dynamics, use biological monitoring to assess water quality, discover winter adaptations, and construct field experiences that culminate in scientific analysis.
- In Upper School biology classes, students build new gardens to improve the human feel of areas around the school, improve groundwater quality and native habitat, and to reduce lawn acreage and grounds maintenance. They learn to measure and compare forest values for timber and ecosystem services. Students grow an awareness of nature's cycles and truthfulness by practicing bimonthly field observations of an on-campus savannah an 8-minute walk from the classroom.

## Professional Development

- Environmental and sustainability professional development is supported by teachers attending and presenting at NSTA, Missouri Environmental Education Association (MEEA), Sustainability Institute for Educators, and EdCamp. Annual professional development is provided by the School's Sustainability Coordinator to teachers at all levels (EC-12). The focus of this professional development offers support to teachers at all levels to creatively incorporate the UN SDGs into curriculum.

## Outdoor Learning Experiences

- [Challenge Course](#) - Since 2010, we've had our own challenge course which includes a high and low ropes course and team-building activities. In addition to helping unfold character, its use gives our students the opportunity to connect with the outdoors and try out the sport of rock climbing. We also host other schools and organizations. In the Fall of 2021, seven schools utilized our Challenge Course for character training.
- Lower School Outdoor Character Education - To emphasize the importance of character education, four times per year, each class in grades K-5 goes outdoors for an entire afternoon to learn about specific character themes through different activities: team-building games, shelter building, orienteering, and climbing on our Challenge Course.
- Principia Adventure (PA) - Weekly, every Middle School student is part of this 1.5-hour program. Students spend time on our Challenge Course for about half the year, while spending the other half in our forests learning wilderness skills, including fire building, lashing, canoeing, shelter building, backpacking, orienteering, land stewardship, and mountain biking.
- Turtle tracking - The St. Louis Box Turtle Project, run by the St. Louis Zoo receives our assistance by students (and leaders) gathering data on eastern box turtles at Principia. We have four turtles "tagged" and regularly find them with different classes using radio telemetry. We also have an after-school Turtle Tracking Club that is offered each Spring where we find, learn about, and "shellebrate" turtles. Learn more about our team [here](#).
- Monarch tagging - Because pollination is important to the health of our planet's ecosystems, several grades tag monarchs each Spring through [Monarch Watch](#).



- Our School has four major gardens where organic gardening is practiced. There is a large permaculture orchard shared by all levels. The Lower School has six raised beds and a garden extension for in-ground planting. There is a large vegetable garden located on the Upper School green with a productive greenhouse and herb garden nearby. Next to each of the gardens we have student maintained chicken coops with chickens and ducks that help to control the slugs and insects as well as compost bins to produce our own compost. Students learn about plant cycles, companion planting, soil composition, water conservation practices, beneficial insects, and gardening in winter. Our gardens support our bee hives and the bees support our gardens.
- Outward Bound - For the past 7 years, the Upper School has dedicated a week to sending its 9th- to 11th-grade students to different parts of the country to partake in [Outward Bound](#) wilderness trips. In September 2021, the freshmen went to Washington to raft, the sophomores to Colorado to mountaineer, and the juniors to Maine to sail. (The seniors go to an outdoor learning center in Michigan.) These experiences put students in touch with nature, teach leave-no-trace living, and provide opportunities to experience wilderness.
- Principia maintains one full-time Outdoor Education Coordinator, one part-time Garden Manager (who interfaces with students/teachers), one full-time faculty is also designated as Sustainability Coordinator.


## Community Engagement

- Preschool families are invited to an annual Lantern Walk where students guide their families into the woods where they appreciate the landscape around them and deepen their connection to each other and the environment around them.
- Community Service - Principia School seeks to give students authentic opportunities to give, think, and act selflessly through service. Upper School students participate in "Prin Giving Day" which consists of 2 days each school year off-campus volunteering at local organizations. Students and faculty participate in a wide variety of activities such as gardening to support food security, community revitalization, organizing resources for the unhoused, working with food banks, and removing invasives from local parks. Our commitment to community service is also highlighted by two service trips students can participate in: building a house for a family in the Dominican Republic through YWAM and the [Simunye Project](#), an 18-day trip to South Africa. In addition, the Middle School boarding students also participate in service projects monthly with their dorms. They help out at animal shelters, food banks, community centers and in various gardens around the community, in addition to picking up trash along the roads surrounding campus.
- Local partnerships are a natural result of Principia's commitment to service as well as our focus on authentic, relevant curriculum. We have built vibrant and enduring partnerships with many local and global organizations. Not only do these relationships support the organizations and build community, they showcase to students the relevance of their learning and highlight their ability to serve as change agents in the world. From BioBlitz and Impact Challenge to Prin Giving Day and service trips, Principia partners with well over 40 organizations on a regular basis.
- Students in the sustainability class sell vegetables from the Upper School garden each Friday morning to the community. This Fall (2021) they earned over \$500.
- Each year, Principia hosts an [Empty Bowls](#) event that uses art (ceramic bowls) to raise awareness about food insecurity in St. Louis. In three years, the event raised over \$7,000 for [Urban Harvest STL](#), a local organization committed to building community around inclusive and resilient food systems.
- The Impact Challenge is a school-wide (EC-12) project that uses the UN Sustainable Development Goals as a platform with which students can engage as change makers for good in our communities and the world. The Goals provide a broad platform with which students work to identify the needs of people and our planet. It's powerful to see how this Challenge

engages students of all ages with the concept of sustainability in new and fresh ways. This SDG Talks [podcast](#) provides an overview of the project and its importance.

- Examples of projects students have embarked upon in the Impact Challenge include:
  - Partnering with local shelters and running clothing and food drives to supply identified needs.
  - Connecting with a local film producer focused on the impact of poverty in education and bringing the film (as well as a Q&A with the producer and the “star” of the film) to the community.
  - Creating affinity spaces in the school as a key level in ensuring individuals feel safe and heard.
  - Partnering with the United Nations Association-STL to host a letter-writing campaign and creating a competition between students to reduce food waste.
  - Engaging with community teens by participating in an empowerment summit, presenting their findings and recommendations to local professionals.
- The following [Website](#) highlights the focus of the Impact Challenge and how schools and experts can get involved. This year (2022), we are excited to broaden the Impact Challenge work beyond Principia to include 2 additional schools and over 20 professionals from around the nation. We look forward to expanding the Challenge to engage as many schools as possible in the important work of activating youth as key change makers for good. In the previous two years, a total of 94 projects, 4 schools, and 273 students have participated.
- Principia organizes and runs a community-wide BioBlitz for our students, community members, and St. Louis-based schools. This 2-day event involves strong partnerships with the St. Louis Zoo, Missouri Botanical Garden, Missouri Department of Conservation (MDC), and local Universities. Experts from these organizations serve as session leaders for the “Blitz” event. In many cases for the students participating from St. Louis-based schools, this is a key opportunity to interact with nature, made more meaningful with a local expert. In both [2018](#) and [2019](#), more than 100 different species were identified in a specified area of woods, pond, savanna, and streams on campus using iNaturalist. Professionals from these partner organizations have remarked each year on the importance of Principia’s natural areas in the midst of an urban/suburban setting.

## MEDIA

<a href="https://www.youtube.com/watch?v=C5dqAc9d7UQ">https://www.youtube.com/watch?v=C5dqAc9d7UQ</a>	Link to video highlighting Pillar II and III accomplishments.
	Principia’s Outdoor Learning Coordinator exploring leaves and shapes with Principia preschool students. This early and regular exposure to natural areas and the diversity found within is important to both social emotional development and environmental education. (Pillar III)



Principia Middle School students enjoy a fall day as they bike on the Katy Trail during Project Adventure. Student health and wellness habits are emphasized while building appreciation of the surrounding environment. Pillar II and III



The United Nations Sustainable Development Goals (SDGs) and student's commitment to change stand prominent in the school. In this picture, students had listened to local professionals as well as their peers during the Impact Challenge. Using sketch notes, students identified their commitments to one (or more) of the SDGs.