Missouri Environmental Education News
April 2018

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Four Schools Recognized as US Department of Education Green Ribbon Schools

by: Jan Weaver, MEEA Executive Director

This year Missouri Green Schools received nominations from five schools. All of them met our criteria for Missouri Green Ribbon Schools: Bellerive Elementary School, Green Trails Elementary School, Keyser Elementary School, Raintee (private) and St. Louis University High School (private). Below we feature a distinctive practice employed by each school in each of the three pillars (sustainability, health, and learning) along with a link to their nomination packet for more details.

UPDATE May 16, 2018: MEEA is proud to share that all four schools nominated to the US Department of Education - Bellerive Elementary, Green Trails Elementary, Keyser Elementary, and St. Louis University High School have all been selected as USED Green Ribbon Schools! Check out USED’s “Highlights from the 2018 Nominees” for more information.

Bellerive is a public school in the Parkway District in St. Louis. It is a Title I school with 33% of students on an IEP and 26% receiving FRPL (free and reduced price lunch). It is a “Leader in Me” Lighthouse School, a distinction acheived by only 350 schools worldwide. “Leader in Me” teaches 21st century skills to empower students to become leaders.

Bellerive Nomination

- **Sustainability** - Through student led initiatives, retrofitting all lighting to LED, a 25kW solar array, and ASHRAE Advanced Energy Design Guideline for all major capital improvement projects, energy use was reduced by 42%
- **Health** - Parents are invited to participate almost every month in school-wide events like Walk to School, Mindfulness Night, Culture Night, Leadership Day, Healthy Habit Training, Read-Right-Run and more.
- **Learning** - 5th Grade students learn about food deserts, count and sort beans and spices, determine how many packets can be created and make soup packets for the local food pantry. This activity incorporates problem solving, measuring, fractions, and economic resources into one learning activity

Bellerive Elementary School’s Nomination Form

Green Trails is a public school in the Parkway District in St. Louis. Over 17% of students have limited English proficiency, 30% have limited mobility and 11.9% are receive FRPL. Many years ago, the school started with the simple step of turning off lights after students left the building. It now uses a Whole School Sustainability approach to inform all
its actions. Green Trails Nomination

- **Sustainability** - The school actively works to recycle not only single stream items (like straws) but also all of their electronics scrap, light bulbs and ballasts, construction and demolition scrap metal, old carpet, and old furniture.
- **Health** - This year the school doubled daily recess time from 20 minutes once a day to 20 minutes twice a day. Although initially teachers were concerned about the loss of instruction, benefits include increased focus in the classroom, and a 19% decrease in office referrals, which climbed to 31% when the breaks could take place outside.
- **Learning** - The surrounding neighborhood has been greatly impacted by the focus on nature and eating more healthfully. Parents report children requesting home gardens and specific vegetables because they have had experience growing and caring for them.

Green Trails Elementary School's Nomination Form

**Keysor Elementary**

2nd Grade students tagging Monarch butterflies in Project IDEA’s rain garden area.

**Keysor** is a public school in the Kirkwood District in St. Louis. It has 19% of its students in reading, writing and math intervention groups, 12.8% with an IEP and 11.5% receiving FRPL. A major milestone of their sustainability efforts was the creation of the Project IDEA (Imagination, Discovery, Exploration, Adventure) outdoor learning landscape. **Keysor Nomination**

- **Sustainability** - In 2012, students surveyed the school’s solid waste and found 13 bags of trash were sent to the landfill each day. By sorting cafeteria waste into recycling, composting and landfilling categories, they reduced landfill waste to 2 bags a day.
- **Health** - Within Project IDEA’s vegetable garden beds and three indoor Tower Gardens, Keysor staff and students nurture organic produce. Each grade level is responsible for the seeding, maintenance and harvesting of their garden beds and Tower Gardens. Vegetables, fruits and herbs are enjoyed for snack, lunch and community experiences throughout the school year.
- **Learning** - Students work within their Writing Workshop to create persuasive letters for their families and community centered around reducing waste, especially single use items like straws.

Keysor Elementary School’s Nomination Form

**St. Louis University High School**

Student artists modify a robotics team structure into a chicken coop as an installation piece for our upcycled art show *Waste Not, Want Not: Art Reimagined* for the 2018 USGBC Green Schools Quest.

SLUH is a private Jesuit all boys Catholic Preparatory High School with four in ten of its students receiving a partial to full scholarship. The school is guided and informed in its sustainability efforts by Pope Francis’ 2015 encyclical on care for our common home- *Laudato Si*. Their progress is led by a newly formed Sustainability Board with representatives from administration, finance, maintenance, faculty and students.

- **Sustainability** - SLUH has four Sustainability Student Teams. Waste significantly reduced waste stream and disposal costs. Energy reduced electric energy use by 7%. Food helped plan and execute the *Iron Chef SLUH* competition to increase awareness of sustainable food as well as raising $1200 for the *St. Patrick’s Center*. Green Schools collected information for the nomination form (20 pages long with 57 items).
- **Health** - The Athletic department runs baseline brain measurements of all students and that are available to healthcare providers, in the event of an incident. We have a strong concussion-return to play protocol and a robotic tackling dummy is used to teach safe tackling strategies. Cross-country runners always have a teammate and are taught injury protocol and practice responses when a partner suffers an injury or heat related illness.
- **Learning** - All Freshman are taking a new course in Human Geography that was the direct result of strategic planning that identified sustainability as a key component of the 21st Century curriculum. The theme of the course is confronting and resisting a "throw-away culture".

St. Louis University High School’s Nomination Form

**Raintree**
Raintree School is a private Reggio-inspired Forest School serving two to six year olds in St. Louis. The Reggio approach holds that children are driven by their interest to understand and know more, and able to learn their place in the world through their interactions with others and with an environment filled with natural light, order and beauty. As a Forest School, Raintree's goal is that students develop civic character, sense of place, and depth of knowledge through inquiry-based thinking and student driven projects within the context of nature. It is a school founded on the premise that civically-minded outdoor, experiential education is a vehicle for change.

- **Sustainability** - For Raintree School, sustainability begins with the landscape. On our nearly 11 acre, wooded campus, creating and protecting the threatened habitats for insects, birds, mammals and other wildlife has been of utmost importance to our campus and neighboring residents. Having eliminated the threat of the woodland being leveled for a housing development, Raintree new works to remove invasives from the woodland while adding pollinator gardens and tall grasses in all landscaped zones and student-use spaces, so that school grounds are a haven for wildlife.

- **Health** - Raintree's most notable accomplishment was replacing traditional PE classes with open play outdoor time. Recent research found increased student gross motor activity in open-play outdoor time above and beyond that found in organized P.E. classes. Similarly, data on Forest Schools finds additional benefits in balance, coordination, and strength in children spending time in wild outdoor spaces. Wanting to maximize the physical activity of students during gross motor opportunities, Raintree has made play in wild outdoor spaces a regular, consistent part of the school week, year-round, rain or shine with one whole day devoted to being outdoors.

- **Learning** - Every academic benchmark at Raintree is embedded in the locally-based work of each class cohort. Within the "Free Shoehy project", students initiated advocacy considered the habitat and wildlife of Shaw Nature Reserve, integrated every learning domain (from creating watercolor paintings of the prairie to graphing bird sightings), enhanced soft skills, and prompted presentations to students campus-wide and the partner organizations within the project.

Raintree Pre-K School's Nomination Form

In order to encourage states in their outreach to all schools, the US Department of Education's Green Ribbon Schools program limits recognition to one private school each year, and, to nominate more than one public school, at least one must meet state criteria for "disadvantaged" (Title I, 40% FRPL, etc.).

Because of the the limitation on the number of private schools, we only submitted the nomination for St. Louis University High School this year. Raintree will be encouraged to submit again next year.

**Spring Fundraiser**

Our Spring Fundraiser starts April 11 and goes for ten days. We will have three ways to participate: a Coloring Contest; a Quiz Contest; and a Most Donor Participants Contest. Adults over 18 will pay fees to participate in the coloring and quiz contests, anyone under 18 can participate for free. Final results and Winners will be recognized in our May Newsletter.

Look for more information in your email! If you are not on our email list, join as a Free Basic Member at www.meesa.org/join.html

**Hot Topics!**

Last month we surveyed the membership about what topics they would like to see covered in the newsletter. The leading topics were:

1. Water Pollution
2. Human Health Impacts (lead poisoning, radiation exposure, cancer, pulmonary disease, afluenza, etc.)
3. Critical Resources (shelter, water, food, energy, fiber)
4. Resource Depletion (of fish, soil, forests, etc.)
5. Human Population Growth
6. Biodiversity Loss (e.g. endangered species, extinctions, etc.)

We are still looking for feedback. See the list of topics here. Let us know what you would like to know more about!

**Things to Look for (or Look Out for) in April**

Things are really picking up!

- Garden Month - [http://www.nationalgardenmonth.org](http://www.nationalgardenmonth.org)
- Last Week - Air Quality Awareness Week - [http://www3.epa.gov/airnow/alraware/](http://www3.epa.gov/airnow/alraware/)
- First Friday - Arbor Day (Missouri) - [http://arbor-day.net/index.htm](http://arbor-day.net/index.htm)
- Last Saturday - Save the Frogs Day - [http://savethefrogs.com/day/](http://savethefrogs.com/day/)
- 22 Earth Day (annually) - [http://www.earthday.org](http://www.earthday.org)
  - Earth Day Community Events Around Missouri
    - St. Louis
    - Kansas City
    - Springfield
    - Columbia
    - St. Joseph
    - Jefferson City
    - Joplin
    - Kirksville
Check out all the 2018 Green Holidays.

What to Look for Right Now - MDC's list of What's Out There in April!

**MEEA News**

- **People Team**
  - **Memberships** - Welcome to new member Timothy Russell.
  - **Networking** - Executive Director Jan Weaver attended the Missouri Coordinated School Health Quarterly meeting.

- **Purpose Team**
  - **Conference** - The theme of the 2018 MO Green Schools and Environmental Education Conference is “Taking Learning Outdoors”. The conference will be Friday and Saturday November 2-3. Tentative plans include PreK-5, 6-12, and Non-Formal Strands. The committee also discussed the idea of a strand featuring youth presentations. Let us know what you think of the idea and if you have suggestions for what it should look like. Email weaverjc@missouri.edu with your ideas.
  - **Missouri Green Schools** - see Missouri Green Schools above

- **Resources**
  - **Accounting** - Jan Weaver will continue to keep monthly accounts. Sarah Bantz, a Columbia CPA, will do quarterly reviews of the books. Columbia Payroll will handle payroll and associated state and federal payments.
  - **Fund Development** - see Spring Fundraising above

- **Governance Team**
  - **Board of Directors** - Welcome to new board members: Jennifer Grabner, Andy Klingensmith, Kevin Mouser, and Laura Seger. Susan Flowers and Phyllis Baicerrzak will be rejoining the board for new terms. Carrie Hammond, Melvin Johnson and Christine Li will continue on the board for another year.
  - **Administration** - Jan Weaver is working with the new board to identify a time for the monthly board conference call.

- **Grant Funding**
  - **New Grants** - Jan is working with Kansas, Iowa and Nebraska to apply for an EPA Environmental Education Grant.

**Coming Up in the Next Two Months**

**Grants, Contests and Awards Deadlines more info here**
- EPA Region 7 - EE Local Grants Program (4/11), Trex Polyethylene Recycling Challenge (4/15), McCarthy Dressman Education Foundation Teacher Development Grants (4/15), Barron Prize (4/15), Stockholm Junior Water Prize (4/15), Carton to Garden Contest (4/16), American Chemical Society Hach H.S. Chemistry Classroom Grant (4/16), Unsung Heroes (4/30)

**Conferences and Meetings more info here**
- April 4-7 Greater Kansas City Science and Engineering Fair
- April 18-19 Advancing Renewables in the Midwest
- May 10-11 - Integrating the Missouri River in Your Classroom
- June 19-21 - Sustainability Institute for Educators

**Workshops and Events around Missouri more info here**
- Plants with a Purpose - 4/14, Maryville
- Family Archery Clinic - 4/11, Kirksville
- Snakes - (4/7), Blue Springs
- Planting with a Post-Wild World (4/18), Kansas City
- Amphibian Night - (4/20), Kirkswood
- Project WET/WILD Workshop for Educators - (4/14), Monett
- Heritage Day - (4/14), Winona
- Conservation Destination: Otter Slough - (4/28), Cape Girardeau

(These count for Environmental Educator Certification categories 1, 2 or 3. Visit the EE Certification page here)

**Outdoor, Nature, Environmental and Sustainability Event Calendars - visit our page of organization and agency calendars - if you would like to have your organization's regularly updated calendar added, email Executive Director Jan Weaver**

**EE Jobs more info here**
• Assistant Nature Center Operator, Springfield
• MDC Outreach and Education Chief, Jefferson City
• Recycling and Sustainability Assistant Summer Internship, Jefferson City
• Missouri River Relief Executive Director, Columbia
• Park/Historic Site Specialist I-II, Bennett Springs
• Coordinator, K-12 and Family Programs, Powell Gardens, KC Area