

Litzsinger Road Ecology Center

COMMUNITY NEWSLETTER

www.litzsinger.org

January 2017

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*Winter is a fine time to learn outdoors!
Photo by Eddie Jones.*

Going Digital!

by Bob Coulter

As long time volunteers and teacher partners know, we have published a newsletter each month of the school year for more than a decade. In that time, more of you have taken to reading on your computer, tablet, or phone, making a pdf newsletter cumbersome to produce and to read. Starting next month we will be re-launching as a digital newsletter. This will let us bring you “right-sized” information and ideas without the space constraints or format limits that go with an 8.5” × 11” page format. Links, embedded videos, and more become possible.

Along with this change in the newsletter, we will begin transitioning the litzsinger.org web site to a mobile-friendly format, with the information you need formatted to fit your computer, phone or tablet as needed. We will also be unveiling new ways to highlight the great projects happening at schools across the St. Louis region. We hope this will let us better recognize the extraordinary efforts of our partner teachers, and provide inspiration for teachers just beginning their journeys in place-based education.

As we move forward, please be sure to let us know what you like (or don't like) and what you want to see more of. We're here to serve you. 🌿





Winter: 'Tis the Season to Go Outside!

by Eddie Jones

The mission of the LREC Teacher Partnership Program is to equip teachers to become effective outdoor place-based educators; using outdoor spaces to enhance learning, develop schoolyard native plant habitats and engage with their community.

We can't mean wintertime, too...can we? After all, teachers have to be sensible and keep their students safe. And schools have rules:

Below 20°F: stay inside; 20° to 95°F: outside normal time; 95°F and above: stay inside.

—Rockwood School District

If the air temperature and/or wind chill is 15° to 20°F, then outdoor recess will be limited to ten minutes. If the air temperature and/or wind chill is below 15°F, then only indoor recess will be held.

—Francis Howell School District



Students can use a snowy day to stomp seeds, explore stumps, and go for a sled ride. Photos by Eddie Jones.

See **Winter**, page 3

From **Winter**, page 2

Well...that rules out a handful of days each school year. Let's check on schools in more northerly climes:

Elementary school students will go outside for daily recess unless the temperature or wind chill factor reaches -10°F .

—Anchorage School District

Conditions warranting indoor recesses: (a) Rain, thunderstorms, lightning, hail, extreme winds and extreme cold. (b) Cold weather: When temperature and/or wind chill factor indicates -28°C [-18.4°F] or lower children will remain indoors due to risk of frostnip and frostbite. When temperature and/or wind chill factor indicates -20°C to -28°C [-4°F to -18.4°F], recesses may be shortened to 10 minutes and lunch recess be 20 minutes depending on local conditions.

—Toronto District School Board

Students are to stay inside the school when the temperature with the wind chill is -27°C [-16.6°F]. When the wind chill is -20°C to -26°C [-4° to -14.8°F], students are expected to dress warmly and go outside during recess and noon hour, for fresh air and exercise. Students can come into the school to warm up in the boot room and are then expected to return outside after a few minutes. Fresh air and exercise provides energy for the rest of the day and we are working hard to ensure our staff and students remain in motion!

—Saskatoon Public Schools

Check out this pediatrician's take on children and cold weather:

[Kids and cold: Bundle 'em up, send 'em out, doctor says](#)

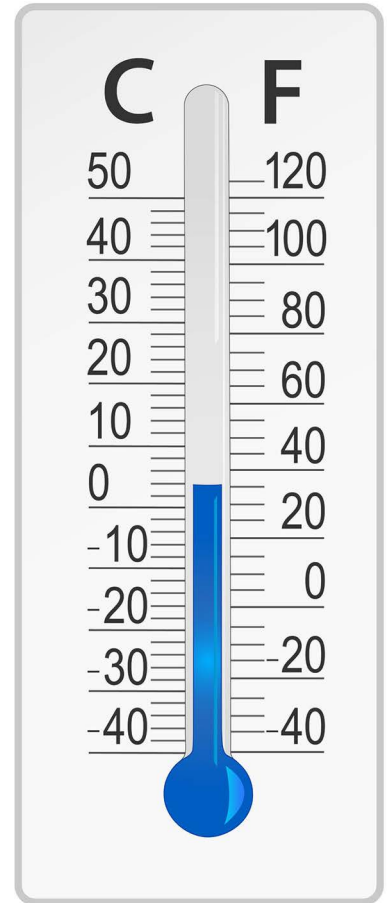
From Scandinavia and Europe to West Africa and the USA, parents speak out:

[How Cold is Too Cold for Recess? 24 Parents Across the Globe Weigh In](#)

If recess and play aren't hampered by cold weather, then outdoor learning can continue, too! A couple of resources for you and your students:

- [Things to Look for Outside in the Winter](#)
- [Nature Study Ideas For Winter](#)

Get outside regularly with your students this winter. And let us know what's happening in your schoolyard! ✨



JANUARY

by Martha M. Schermann

Journaling

Allows

New

Use

Aiding

Rare

Yearnings



Stories from the Schoolyard: Holy Cross Academy—Our Lady of Providence

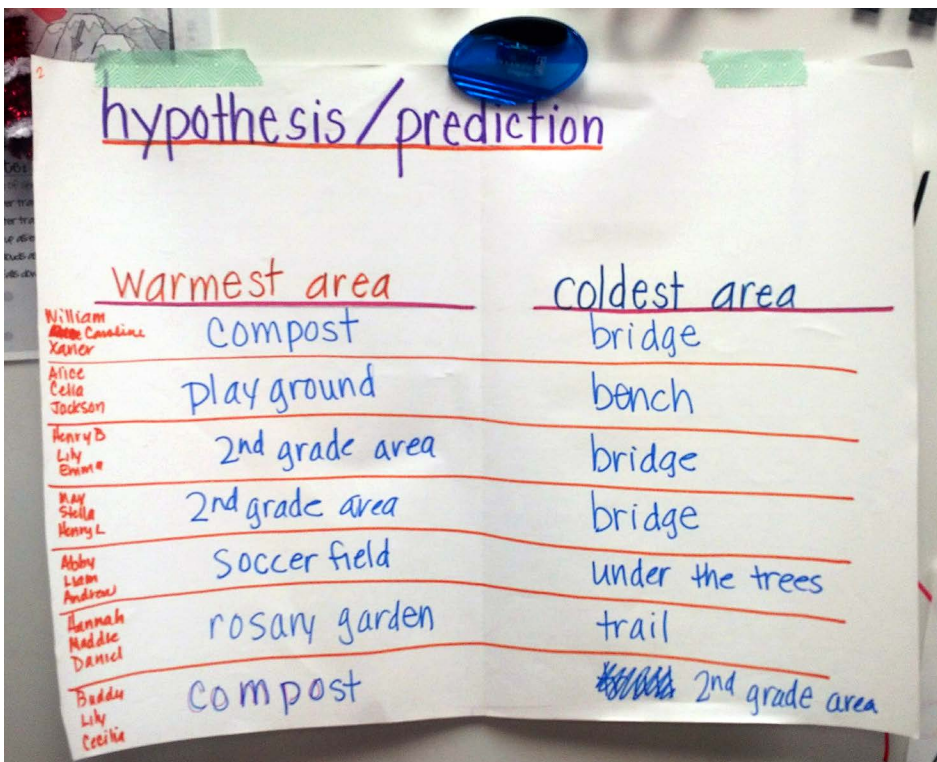
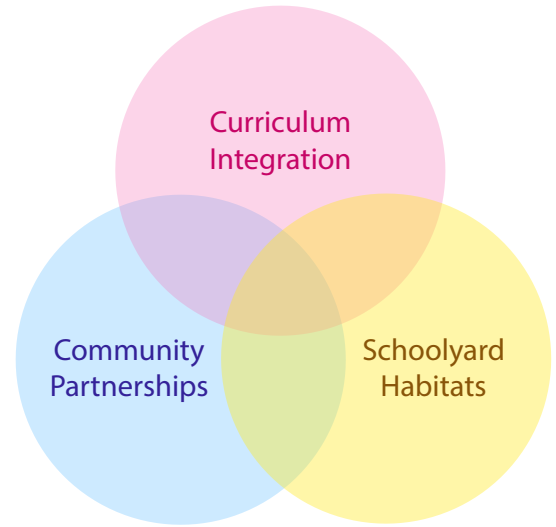
EFFECTIVE OUTDOOR LEARNING AT ST. LOUIS AREA SCHOOLS

by Leslie Memula

Just a few short hours before winter break began, I headed out to the Our Lady of Providence campus of Holy Cross Academy to work with their second grade students. It may seem a bit crazy considering they only had a half day of school that day and a Christmas party to boot, but I was invited by their principal, Mrs. Laura Clark, so how could I say no?

The task at hand was to determine which spot in the Outdoor

Experience—their outdoor classroom/learning lab—was warmest and which was coldest. Mrs. Clark showed the students a hand-drawn map of their campus and the kids helped label the different areas. There was a discussion about making predictions before the second graders were divided up into small groups. Each group worked collaboratively to come up with a group hypothesis (see photo below) of the warmest and coldest areas.



Left: the students' hypothesis. Above: Two second graders record temperature information. Photos by Leslie Memula.

See **Schoolyard**, page 5

From **Schoolyard**, page 4

After a quick lesson on how to use (and read) the thermometer correctly, the students headed outside to gather their data!

Mrs. Clark is currently participating in our *Effective Outdoor Learning* program. As part of this year-long training program, teachers agree to complete monthly outdoor lessons from units provided as part of [Discover Nature Schools](#) from Missouri Department of Conservation. The second graders were doing the [Where Is It Coldest?](#) lesson from the *Nature Unfolds Instructional Unit*.

Updated information about the year-long training programs offered at LREC will be announced in our February newsletter. 🌿



Second graders gather and record temperature data from different areas. Photos by Leslie Memula.

LAST CALL FOR THE CONFERENCE!

Litzinger Road Ecology Center TEACHER CONFERENCE

Wednesday, January 25, 2017

9am–3pm

at Missouri Botanical Garden
4344 Shaw Blvd., 63110

*This conference is open to all LREC
Teacher Partners.*

There is no charge for the conference, but you must register in advance. No lunch is provided. Bring it with you or purchase lunch during the midday break at [Sassafras Café](#), just upstairs from our meeting space.

Email your LREC contact person to register. Do this soon! Even better, NOW!

UPCOMING TEACHER ENRICHMENTS

Join us as we visit and investigate local schoolyards! We will meet from 4–5:30pm at the host school. RSVP to your LREC staff contact so we know how many to expect!

Wednesday, February 22, 2017

Patterns in the Schoolyard

at Covenant Christian School
2145 N Ballas Road
Town & Country, MO 63131

Tuesday, March 21, 2017

Schoolyard Scavenger Hunt

at Sacred Heart Villa
2108 Mackling Avenue
St. Louis, MO 63110

Monday, April 10, 2017 (new date)

Your Schoolyard Watershed

at The Freedom School
1483 82nd Boulevard
University City, MO 63132



Glass House Quiz: Prairie Burns

by *Jamela Thompson and Deanna English*

It's the time of year when we begin to hear a lot of questions regarding our yearly prescribed burn. It seems that nearly everyone who is connected to LREC wants to know about and participate in this event. This year we are planning to burn two areas, the South Prairie and the Mulch Pile Woods. Hopefully this quiz helps everyone better understand how and why we burn at LREC.

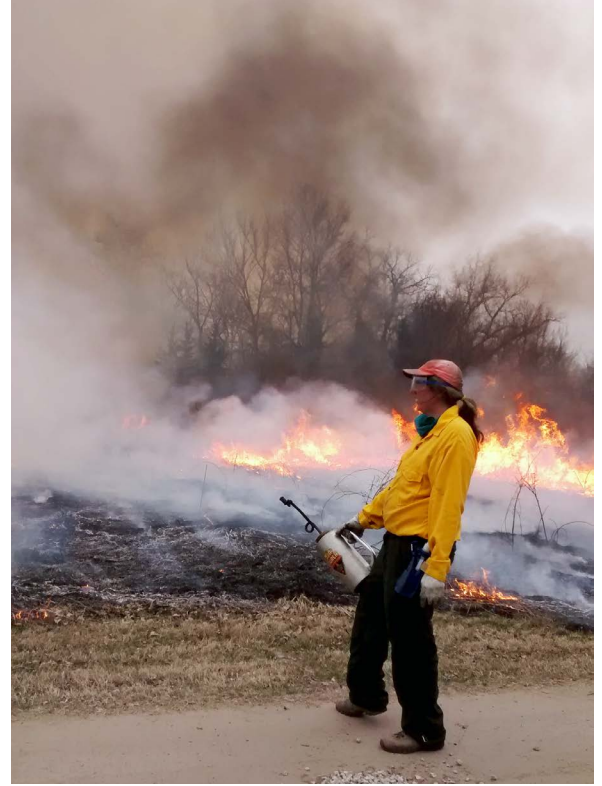
- 1. There are many reasons our management plan includes yearly burns. Which of the following is NOT one of those reasons?**
 - a) manage non-native species
 - b) create habitat for birds
 - c) suppress woody plants
 - d) chase out rodents
- 2. There are three basic requirements for a fire to occur.**
 - a) fuel, water, oxygen
 - b) carbon dioxide, heat, water
 - c) fuel, oxygen, heat
 - d) oxygen, heat, soil
- 3. What method/device do we use to ignite our burn units?**
 - a) matches to light a carefully placed trail of gasoline
 - b) drip torch that spreads a line of fire
 - c) ignited piles of leaves along the perimeter of the burn unit
 - d) small explosives strategically placed around the burn unit
- 4. Which of these methods/tools does LREC NOT use to suppress the fires?**
 - a) 50-gallon spray tanker attached to the Husky
 - b) "Indian bags" or backpack fire pump
 - c) foam fire suppressant
 - d) rakes and flappers
- 5. What kind of fuel is used to light the fire?**
 - a) 75% diesel fuel and 25% gasoline
 - b) 10% diesel fuel and 90% gasoline
 - c) 50% gasoline and 50% denatured alcohol
 - d) 10% denatured alcohol and 90% diesel fuel
- 6. What is the main factor LREC uses to determine what day to burn?**
 - a) weather conditions
 - b) nesting bird activity
 - c) it's the same day every year
 - d) school groups
- 7. True or false: Prescribed prairie burns can be done any season of the year.**
 - a) true
 - b) false
- 8. Prescribed burns are beneficial to the prairie ecological community in many ways. Which one of these is NOT a way that fires benefit prairies?**
 - a) remove thatch (buildup of dead vegetation) to expose more bare soil
 - b) stimulate seed germination
 - c) return carbon and nitrogen to the soil
 - d) slows the spread of trees and shrubs into the prairie
- 9. What is a burn line?**
 - a) a line of vegetation that did not get burned in the fire
 - b) an area of fire that creates white ash from burning the hottest
 - c) a burned swath on the perimeter of the burn unit that is created prior to the burn to halt the spread of the fire to undesirable areas
 - d) a line of people walking at a matched pace to evenly ignite the fire

See **Quiz**, page 7

From **Quiz**, page 6

Answers:

1. **d) chase out rodents.** We like our rodents in the prairie. They are an important part of the ecosystem.
2. **c) fuel, oxygen, heat.** Fuel to burn, air or oxygen, and heat for ignition are all required for a fire to burn. If you remove any of the three you will not have a fire and if you alter any of them the fire's behavior will change.
3. **b) drip torch that spreads a line of fire.** Come to our enrichment on January 17 and learn more about how the drip torch works.
4. **c) foam fire suppressant.** Foam fire suppressants are not generally used for prescribed burns, but may be used when fighting wildfires.
5. **a) 75% diesel fuel and 25% gasoline.** This is the MDC fire management recommended fuel mixture.
6. **a) weather conditions.** Every year we must apply for a permit to conduct prescribed burns, typically a large window from December to May. The **weather conditions** for the day include a wind speed that falls between 5–18 miles per hour, a relative humidity of 20–50%, a temperature of 35–65 degrees Fahrenheit, three days since precipitation or very well dried vegetation, and 8hr ozone <85 ppb.
7. **a) true.** Prescribed burns can be conducted any time of the year. The intensity of the fire, thus the fire's success, depends on the amount of moisture present in the plants and in the air. While it is possible to burn a prairie during growing season, it will produce a less complete burn, leaving patches that were not dry enough to burn. LREC burns in the winter, when the plants have dried, creating a continuous, dry fuel load.
8. **c) return carbon and nitrogen to the soil.** Carbon and nitrogen are lost in the process of burning. However, phosphorus is released and returned to the soil as ash.



Top: A drip torch. Bottom: The Ladue Fire Department is on hand to help LREC staff and volunteers. Photos by Deanna English.

See **Quiz**, page 8

Litzsinger Road Ecology Center

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From **Quiz**, page 7

9. c) a burned swath on the perimeter of the burn unit that is created prior to the burn to halt the spread of the fire to undesirable areas. The pathways on the perimeter of the prairies at LREC are permanent burn lines, or firebreaks. To prep these before a burn, they are made wider by mowing an 8–12 foot border around the prairie. Leaves and other debris are removed on the morning of the burn with a leaf blower. ✂



Staff and volunteers stand on a mown firebreak, making sure the fire stays contained. Photo by Deanna English.

NEW VOLUNTEER EDUCATOR TRAINING

Do you know someone who might be interested in becoming a Volunteer Educator at the Litzsinger Road Ecology Center? We will be holding another Volunteer Educator training series next month. The training will consist of a series of four sessions learning about LREC, strategies for working with children, and the natural world. Sessions will be held on Wednesday afternoons (February 1, 8, 15, and 22) from 12:30 to 3pm. If you have questions or would like to sign up, contact Susan Baron at 314-691-2628 or susan.baron@mobot.org.

LREC Announcements

January 17

Volunteer Enrichment: All About Burns

1–3pm, meet at the cabin/deck. Bring your brown bag lunch at 12:30pm or meet us for the program at 1pm. RSVP to Martha at 314-540-4068 or martha@lrec.net.

January 25

LREC Teacher Conference

9am–3pm, at Missouri Botanical Garden. Details at left.

February 22, March 21, April 10

TEACHER ENRICHMENTS

Join us as we visit and investigate local schoolyards! See page 5 for details.

Local Events

January 14 and 15

Eagle Days

9am–3pm, at Old Chain of Rocks Bridge. Watch eagles and enjoy educational programs and activities. Free. Learn more at greatriversgreenway.org/events.

January 28

Tips and Tricks to Backyard Maple Syrup

1–3pm, at Shaw Nature Reserve. learn how to tap a tree, what tools to use, and how to keep production cost down. \$10 members/\$12 non-members. Registration ends January 16. Learn more and register at shawnature.org.

February 8

Owls of Missouri

7–9pm, at St. Louis Community College–Meramec. Learn about native owl species and dissect owl pellets! \$25. Call 314-984-7777 for more information and to register.