

Litzsinger Road Ecology Center

COMMUNITY NEWSLETTER

www.litzsinger.org

March 2014

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Students at Uthoff Valley Elementary School created a booklet to share their favorite LREC sights. See more on page 2.

Can We Nurture Genius?

by Bob Coulter

Astrophysicist Neil deGrasse Tyson, one of today's most charismatic scientists, was asked to return to his New York elementary school to give a talk. His response was rather blunt: "I am where I am not because of what happened in school but in spite of it, and that is probably not what you want me to say. Call me back and I will address your teachers and give them a piece of my mind." Ouch!

Last month I wrote about how the projects you undertake with your kids help them build critically important skills such as autonomy, competence, and self-identity. This month, I suggest that we add to that, and consider how these projects build a life of the mind that for Tyson and so many others is absent from schooling. As educational philosopher Hugh Sockett asks, how can we help kids think about things like "what counts as evidence, what makes a statement true or false, and whether I ought to believe what I believe."

Left to itself, school can be a race for superficial coverage. Your projects, and your commitment to making school a more intellectually stimulating place make all the difference. Take a bow, and let us know how we can continue to help you serve your kids. ✨

*Volunteers are not paid—
not because they're worthless,
but because they're priceless.*



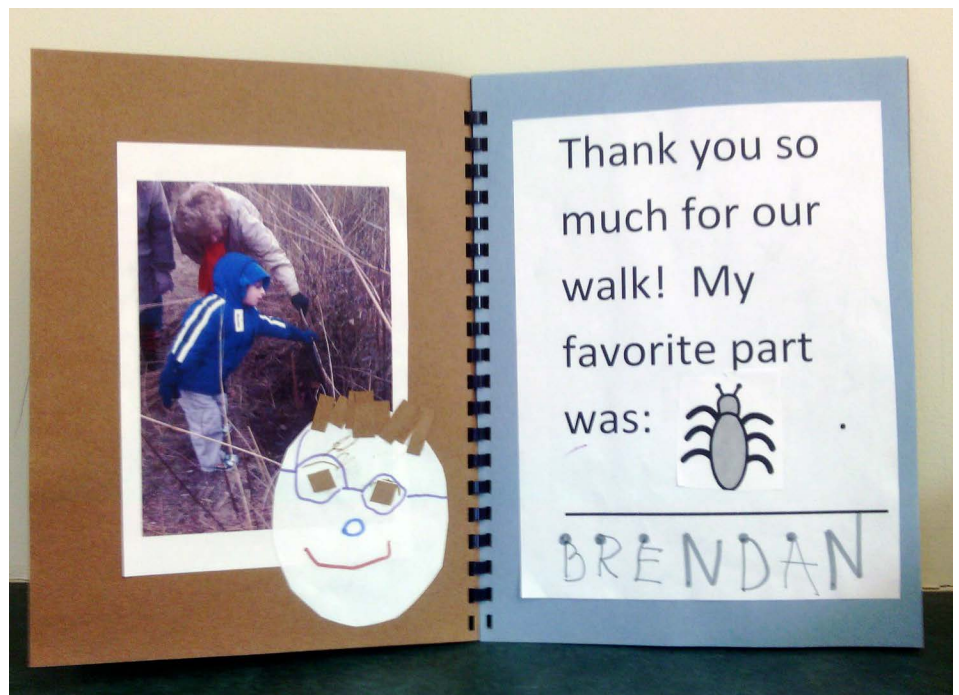
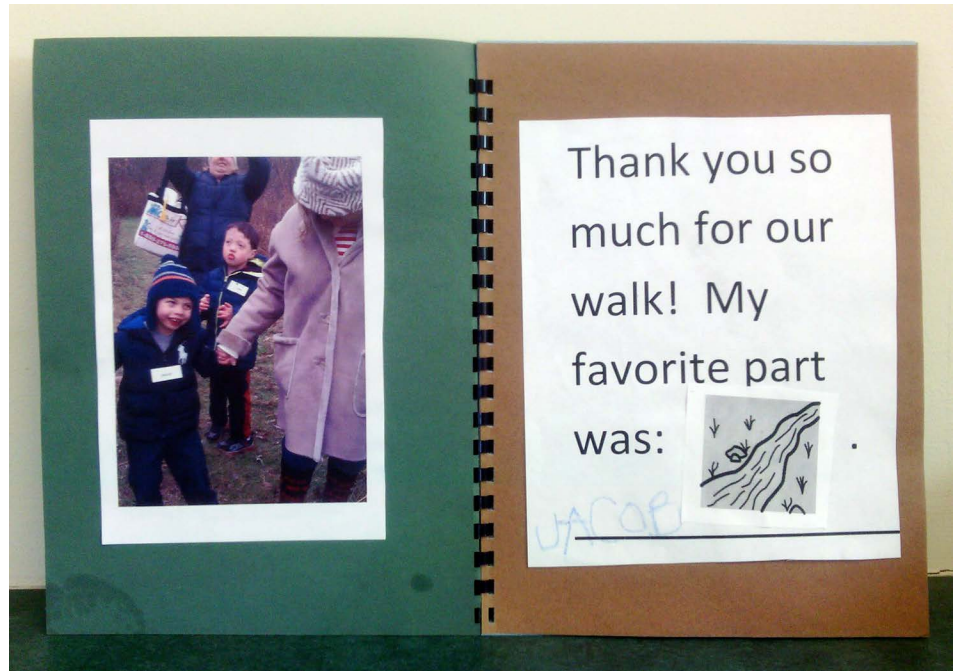


Here and There

by Leslie Memula

It is always encouraging to know that students and teachers enjoy their time at the ecology center. We see their smiling faces as they return to the deck and listen to their voices as they eagerly share their observations with us. “Here” is a place that they visit a few times a year, and we are proud to be a part of their learning opportunities. But “there”, that elusive place known as the school or schoolyard, is where students and teachers spend most of their time.

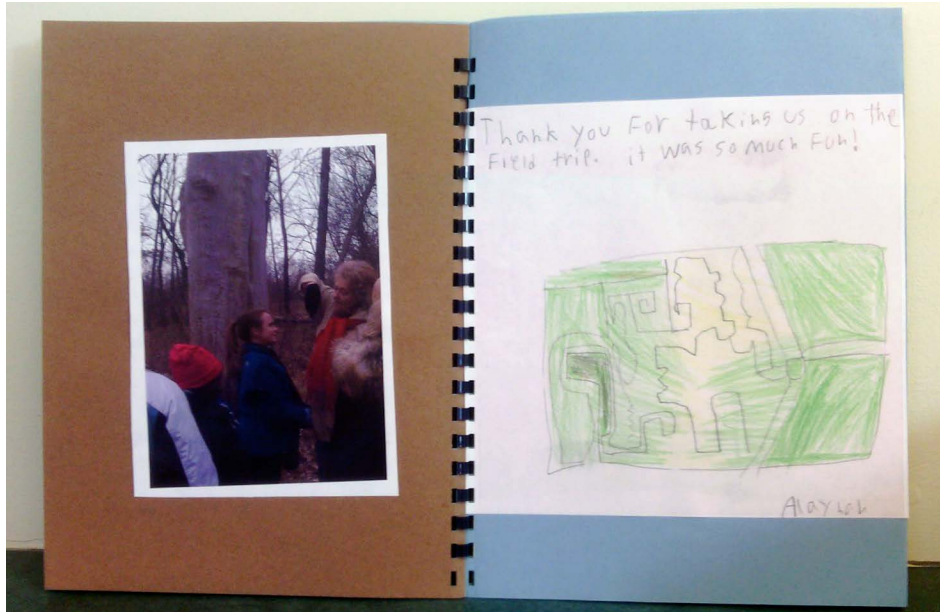
The children in these pictures are students at Uthoff Valley Elementary School in the Rockwood School District. As evidenced by their faces and words, their time at Litzsinger Road Ecology Center is well spent. Back at school their learning is equally impressive! They take sensory nature walks on a regular basis—identifying sights, sounds, textures, and smells. Their schoolyard environment encompasses raised beds, a woodland trail, a pond, and an evolving prairie area. Students are able to observe animals outside their classroom windows (including deer and many different species of birds that visit their feeders) and



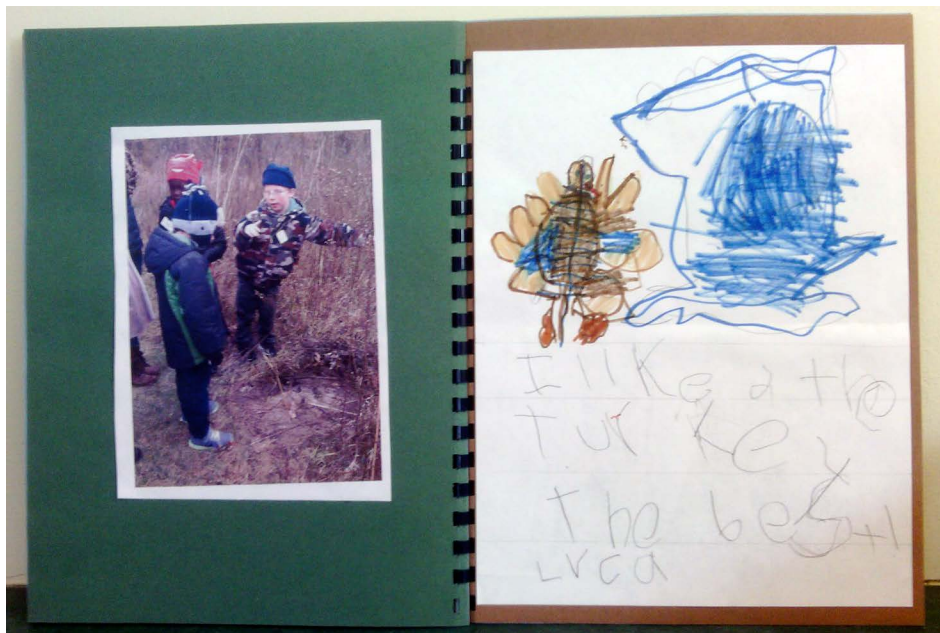
See **Here and There**, page 3



From **Here and There**, page 2



- ▲ *“Thank you for taking us on the field trip. It was so much fun!”*
- ▼ *“I liked the turkey the best!”*



look for signs of animals (such as nests and tracks) that visit their space. They use math and science to predict, sort, and count. They compare and contrast what they observe at school to what they find at LREC and they work to record and graph their findings. This is all delicately planned and facilitated by their teachers.

As staff and volunteers we are energized (and amazed) to learn what students are doing back “there”, in their own place. It helps us when they are “here” with us at Litzinger Road Ecology Center. ✨

MARCH

by Martha M. Schermann

Making
Amends
Restoring
Critical
Habitats




Uthoff Valley Elementary School

Location: 1600 Uthoff Drive, Fenton, MO 63026

Web site: <http://www.rockwood.k12.mo.us/uthoffvalley/pages/default.aspx>

Grades: K-5

Classes partnering with LREC: 1



Glass House Quiz: Studying Nature (aka the “ology” Quiz)

by *Danelle Haake and Deanna English*

We are an ecology center. Ecology is the study of the relationships between living things and their environment. To be an ecologist, you need to study a lot of things about plants, animals, water, chemistry, and much more. Many of the specific fields of study have special names that end in “ology.”

This month we decided to explore these special names and what they really mean. Test your -ology skills on these questions related to -ology opportunities here at Litzsinger Road Ecology Center!



*Crayfish on sandy river bottom.
Photo by Eric Engbretson, USFWS.*

- 1. Which of these is the study of birds' eggs? Hint: the word actually makes you think of eggs.**
 - a) Herbology
 - b) Oology
 - c) Bryology
 - d) Speleology
- 2. Every year we enjoy observing insects we encounter here at LREC. Which one of the following is not a study of insects?**
 - a) Coleopterology
 - b) Vulcanology
 - c) Dipterology
 - d) Heteroptology
 - e) Lepidopterology
- 3. For at least the last six years we have been supporting bird studies here at LREC. We are also very interested in the insects that make their home here. Match the things that fly with their -ology?**

Birds	a) Apiology
Honey bees	b) Lepidopterology
Moths and butterflies	c) Ornithology
Bats	d) Chiroptology
- 4. Soon we will be doing our spring macroinvertebrate stream sampling. This activity, done in the spring and fall, helps us determine the health of our stream. Most years we catch crawdads or crayfish in our nets. If we were to study crayfish, what would this be called?**
 - a) Astacology
 - b) Phycology
 - c) Conchology
 - d) Ichthyology

See **Quiz**, page 5



Horticulture & Restoration Offerings for School Groups

by Deanna English

After this winter I think everyone is looking forward to spring. I think winters like this make spring all that much sweeter and enhance our awareness of the beauty of the changing seasons. I know I feel like I appreciate the smell of the damp soil and sprouting seedlings in the greenhouse a little bit more this winter. The fragrance of the witch hazel that is starting to bloom is wonderful too. When you visit this month remember to stop by the witch hazel just outside the greenhouse and bury your nose in the blossoms. There's nothing like it this time of year.

The greenhouse is a welcome place to visit also. We are transplanting like crazy and welcome the help of students. If you are planning a visit in March, you may want to consider if any of the following activities fit into your curriculum. If they do, call or email your school partnership coordinator and make arrangements to join us as we prepare for spring.

Stream cleanup—Cleanups available when the stream is at a safe level.

Stream monitoring—Use a kit to test dissolved oxygen, conductivity, pH, temperature (air and water), nitrates, turbidity, and chloride.

Macroinvertebrate monitoring—This is an opportunity to count the numbers and types of macroinvertebrates found in Deer Creek to help determine stream health.

Invasive plant removal—Learn about invasive species and help us remove invasive plants from the site.

Roots and plant structure demonstration—Students are introduced to the purpose and function of roots and plant structures.

Greenhouse transplanting—We can always use help to transplant some of those little seedlings. 🌱

From **Quiz**, page 4

5. **The restorationists are developing a new study that we will be starting this month at LREC. We will be gather data each week by walking along an established path and recording bloom times of different plants. We will share data with other scientists to compare life cycle events related to climate and/or weather. What is this study called?**

- a) Myrmecology
- b) Climatology
- c) Phenology
- d) Cynology

Bonus: How well do you know your LREC friends and their interest -ology's? Match the -ology with each person's interest.

- | | |
|-----------------------------------|------------------|
| Don Evans (volunteer) | a) Limnology |
| Colleen Crank (researcher) | b) Ornithology |
| Danelle Haake (restoration staff) | c) Testudinology |
| Leslie Memula (education staff) | d) Mycology |

SIGN UP FOR ONE OF OUR SUMMER WORKSHOPS:

- *Sustainable Schoolyards*
- *Effective Outdoor Learning*
- *Games, Models, and Simulations: New Tools for Student Engagement*

Learn more on our website:
<http://www.litzsinger.org>



See **Quiz**, page 6



From **Quiz**, page 5

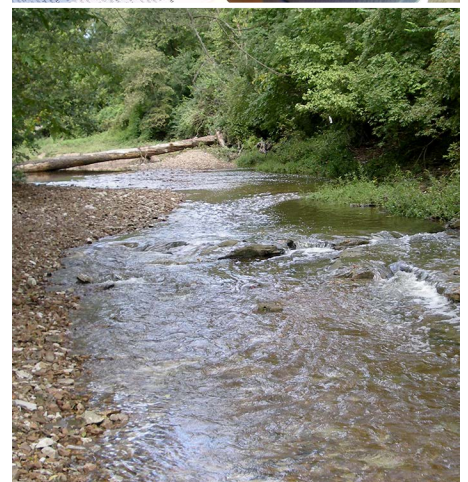
Answers:

- b) Oology.** Don't the two o's in oology remind you of eggs? As for the others: herbology (a) is the study of the therapeutic use of plants (and a course in the Harry Potter series), bryology (c) is the study of mosses and liverworts, and speleology (d) is the study of caves.
- b) Vulcanology.** Vulcanology is the study of volcanoes. The rest are studies of certain groups of insects: coleopterology (a) is the study of beetles, dipterology (c) is the study of flies, heteroptology (d) is the study of true bugs, and lepidopterology (e) is the study of butterflies and moths.
- Birds = c) Ornithology**
Honey Bees = a) Apiology
Moths and Butterflies = b) Lepidopterology
Bats = d) Chiroptology
- a) Astacology.** Astacology is the study of crayfish. The others all have to do with water: phycology (b) is the study of algae, conchology (c) is the study of shells and of mollusks, and ichthyology (d) is the study of fish.
- c) Phenology.** Phenology is the study of periodic biological phenomena. Myrmecology (a) is the study of ants (our friend Dr. James Trager at Shaw Nature Reserve is a myrmecologist), climatology (b) is the study of the climate (we bet many of you knew this one), and cynology (d) is the study of dogs.

Bonus

Don Evans (volunteer) = d) Mycology, the study of fungus. Don is a great source of information about mushrooms and it is always a great time to follow him around and learn about all the fungi that grows right here at Litzsinger Road Ecology Center.

Colleen Crank (researcher) = b) Ornithology, the study of birds. Colleen has been doing bird research for at least the last six years. If you get lucky you might be here one early summer morning and see Colleen and volunteers working with mist nets to catch, identify, measure, and release birds that live or travel through LREC.



LREC is full of things for our -ologists to study. From top to bottom: white fungus, red-bellied woodpecker (*Melanerpes aurifrons*), Deer Creek, and a box turtle (*Terrapene carolina triunguis*). Photos by Danelle Haake, except box turtle which is by Anne Wamser.

See **Quiz**, page 7

LREC READING CORNER

by Deanna English

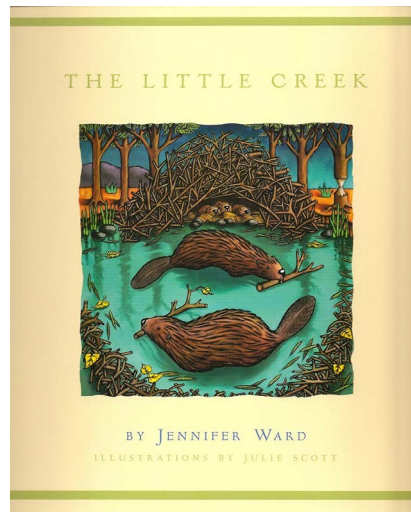
The Little Creek

BY JENNIFER WARD; ILLUSTRATED BY JULIE SCOTT

AUDIENCE: AGES 5 TO 9

This book tells the life story of one creek and the plants and animals that live along the creek. It starts at the beginning of the creek's life and goes through the settlement of humans, the challenges that emerge from the human settlement, and in the end the restoration of the creek by a group of adults and children.

One of the reasons I like this book is the number of local connections that can be made. The illustrations are wonderful and there are many references to plants and animals that are found right here at LREC and probably in many of your schoolyards. It would be fun to read the book and then search for cottonwood trees, riffles in the creek, fish, evidence of deer, coyote, and raccoon, all of which are mentioned in the book. This book would seem especially appropriate if you were bringing students to LREC to study watersheds. If you're interested in using the book during your visit, we have it in our library. 🌱



From **Quiz**, page 6

Danelle Haake (restoration staff) = a) Limnology, the study of fresh water environments. Danelle's favorite place to be is in our streams both urban and rural. In fact rumor has it she will be starting a PhD program soon to continue following her passion.

Leslie Memula (education staff) = c) Testudinology, the study of turtles. If there's a turtle spotted you can be sure Leslie is going to be there to take a look and let people know what kind they have found. Ask her who's hanging out in the pool by the overlook this spring and she will certainly know. 🌱

Sources:

http://chemistry.about.com/od/mathsciencefundamentals/a/ologylist_3.htm

LREC Announcements

March 20

(Rescheduled from February)

Volunteer Enrichment: Geology

1pm, at the barn (or come to the cabin early at 12:30pm with your lunch). Learn about geology from our own Scott George, Volunteer Educator and Hort Volunteer. He will teach about bedrock, fossils, and soils and then lead a field walk for some hands-on experience. RSVP to Martha at martha@lrec.net or 314-540-4068.

March 26

Water Quality Monitoring

1pm, meet at the Glass House. Questions? Contact Danelle Haake at danelle@litzsinger.org or call 314-961-4410.

Local Events

March 8

Become a Purple Martin Landlord

9:30 to 11am, at August A. Busch Memorial Conservation Area. Learn how to provide a home for purple martins. Advanced registration required. Call 636-441-4554.

March 14

FrogWatch USA Volunteer Training

6:30 to 8:30pm, at Shaw Nature Reserve. Be a part of this long-term citizen science monitoring program. Advanced registration required. Learn more and register at <https://www.mobot.org/classes>.

March 29

Spring Hike

9 to 11am, at Englemann Woods Natural Area near Labadie. Experience one of the last remaining old-growth forests along the Missouri River. Advanced registration required. Call 636-458-2236.