As the holidays approached and the last school left for the year, I found my to-do list of projects up at the Pioneer Cabin only seemed to increase in length. I walked up the trail from the FER, carrying a bucket for storing kindling and a scraper to remove wax from the candle table. While I pulled split wood from the pile, I was surprised to stumble upon a mouse burying himself in the stack. I opened up the cabin to put a stack of logs next to the fireplace. The cabin was dark and had been unused for a few weeks. I turned around to take in the room, my arms loaded down with the wood. In the din, I could see the fuzzy nose of what looked like a mouse hanging from the ceiling. That's a little unusual, I thought to myself. Can mice hang from the ceiling? I put the wood down quietly and went to take a closer look. Much to my surprise, two Little Brown Bats had taken up residence in the rafters.

Little Brown Bats (Myotis lucifugus) are mammals, and members of the order Chiroptera. Bats are the only mammals that can achieve true flight (whereas other "flying" mammals actually glide). Little Brown Bats are one of the most common bats in North America, with a range extending from Alaska to Northern Mexico. Little Brown Bats are insectivores, dining on moths, wasps, beetles, gnats, mosquitoes, midges, and mayflies. They use echolocation to find their prey, flying the same routes over and over again every night. While on an average night adult Little Browns eat half their body weight in insects, they can sometimes fill their stomach in as little as fifteen minutes!

Little Brown Bats live in geographic areas with four seasons, or temperate zones. Because of this, they must find a way of surviving during the winter. Many other bats in temperate climates either migrate or hibernate during winter, but Little Browns do both! In the summer, male and female bats live apart, while females raise their young. When fall arrives, the male and female get back together at a hibernation shelter (mostly in caves or mines, but in this case, our Pioneer Cabin) where they mate and then hibernate together.

Because we might disturb our Little Browns if they remained in the cabin for the entire winter, they've been relocated to a small shed near one of Taft's employee residences. When spring finally arrives, they can take flight toward the river, looking for new insects to munch! Source: http://animaldiversity.ummz.umich.edu/site/accounts/information/Myotis_lucifugus.html
Have you ever heard that you can balance an egg on its end during the spring equinox? Believe it, because it is true. However, you can also balance an egg on its end any other day of the year. To disprove this myth yourself, all you need is an egg and a little patience.

According to the myth, you can only stand a raw egg on its end on the day of the vernal (spring) equinox. One supposed explanation is that during the spring equinox the Sun’s gravity “lines up with the Earth.” However, the Sun’s gravity is always lined up with the Earth because the Earth rotates around the Sun. At any given moment, the two objects are lined-up.

So what is an equinox? An equinox occurs directly between the winter and summer solstices. There are actually two equinoxes in a year, one in spring and one in autumn. So according to the myth, you should actually be able to balance an egg during both the vernal and autumnal equinox. During the equinox, the Earth is tilted at a ninety-degree angle from the center of the sun. As with winter and summer, season is relative to the equator. In reality, the most significant thing about the equinox is that day and night are the same length (about 12 hours). In terms of gravity, the Sun is too far away to affect the Earth’s gravity.

Disprove this myth yourself: On any day of the year, try balancing an egg on one end. With a steady hand and a bit of patience, you should be able to do it. If you are having trouble, try another egg. After getting one to balance, try a few more. For a greater challenge, try to get an egg to balance on its short end! Make sure that the eggs are the same size. Also try balancing the egg on different textured surfaces, like a paved sidewalk compared to a marble or granite countertop, and record the differences.

For further experimentation: Balance an egg on the day of the vernal equinox (March 20, 2011). Leave the egg alone overnight, and see if it will continue to balance past the equinox. This is best done on a flat, smooth surface, and not in an area where someone might accidentally bump the egg.

Conclusion: Physicists Philip Plait and Wayne Osborn (see sources below) attest that the real reason that you may be able to balance an egg on it’s end on even the smoothest of surfaces is most likely due to very small bumps or inconsistencies on the eggshell. To read further about the egg balancing myth, as well as the story’s origin, click on the links below.

Sources: http://www.astrosociety.org/education/publications/tnl/62/equinox.html
http://www.suite101.com/content/balancing-an-egg-on-the-equinox-a147137
http://www.phy.cmich.edu/people/osborn/egg1.html
**Birds:**
- Juvenile & Adult Bald Eagles
- Black-capped Chickadees
- Blue Jays
- Brown creepers
- Cardinals
- Crows
- Goldfinch & Purple Finches
- Sparrows
- Dark-eyed Juncos

**Animals, Tracks & Traces:**
- Mourning Doves
- Northern Harriers
- Downey, Hair, Pileated
- Woodpeckers
- Tufted Titmouses
- White-breasted Nuthatches
- Wild Turkeys (their tracks as seen in the photo at right)

**Go Outside & PLAY!**

As the season drags on, and on, and on, we all start looking for ways to beat the winter blues. Bundling up and heading outside for a few hours is a great way to get some exercise and enjoy the winter world.

Try a few of these wintertime activities:

- **Go snow shoeing!** Although it requires special equipment, it is one of the easiest winter activities to do. Beginners should check out: [www.snowshoemag.com/first.cfm](http://www.snowshoemag.com/first.cfm)
- **Make the snow your canvas.** Put a few drops of food coloring in a spray bottle of water & add a little color to your landscape.
- **Track animals & unravel the mysteries hidden in the snow.** Tracking requires a little bit of background knowledge & a healthy sense of curiosity. It's a great way to get in touch with the natural world. For more information visit: [www.bear-tracker.com](http://www.bear-tracker.com)
- **Build a snow fort.** Give it a name & defend it against any potential invaders... until everyone agrees it’s time to go inside & have hot chocolate.
- **Learn to cross country ski!** This activity requires special equipment & some practice, but it’s one of the best winter-time workouts you will find. Rent a pair near you!
- **Play Line tag.** This easy game requires nothing more than a group of friends & a patch of new-fallen snow. Stamp out several interconnected paths. They can be in circles, squares, arches, or whatever shapes your heart desires. Pick somebody to be “it” & only allow the participants to travel along the paths that have been trampled out. Singing the Packman theme song while you play is optional.
- **Build a snowman!** If you allow each person to do only one task, you can turn this classic wintertime activity into a great team building exercise.
Editor’s Note: When I received an excited phone call from Allison announcing the appearance of the Little Brown Bats in the pioneer cabin, I had conflicted emotions. While thrilled at the novelty of the discovery, as a Upstate New York native I immediately thought of what has become known as white-nose syndrome. In the past four years, WNS has spread and has now been detected as far as Tennessee, Oklahoma and Ontario, Canada. It threatens numerous bat species, including the endangered Indiana Bat. A petition was filed in December of 2010 to add the Little Brown Bat to the Endangered Species list and almost one hundred public and private agencies have been employed.

Source: http://www.fws.gov/whitenosesyndrome/about.html

Check out these links to learn more:
- U.S. Fish & Wildlife Service WNS press releases
- Fish & Wildlife Service Midwest Endangered Species
- Scientific American Article 12/28/10

Teacher Tidbits:

Gift Shop: In case you didn't know, we have a small gift shop in our main office where t-shirts, water bottles, travel mugs, & postcards may be purchased. Let your coordinator know if you'd like to schedule a time for students to visit the gift shop. You may also pre-order any item.

Curriculum Planning: Is there a particular concept your students will be working on in the classroom that we can focus on at Taft? Are there learning standards you’d like to see covered during outdoor education? If you have ideas for classes, topics, or curriculum, please discuss them with your coordinator.

Health Procedures: Just a reminder that Teresa’s protocol requires her to have a care plan or doctor’s orders for any student with an Epi-Pen or diabetes. Any student who has a doctor’s excuse for P.E. classes needs to have a doctor’s note giving permission to attend outdoor education and listing any restrictions.

Taft Times Contributors

Shawna Reilly, Sr. Education Program Specialist: design & editing

Allison Palser, Education Program Specialist: Stowing Away the Time feature article

Andy Haka, Education Program Specialist: Winter is Here article

Robin Clancy, Education Program Specialist: Go Outside & PLAY! article

Zero Food Waste Hall Of Fame!
Everyone who comes to Taft Campus works hard to reduce their food waste. We would, once again, like to acknowledge those schools who reached the promised land of zero ort in the past semester:

Chicago City Day School
Westmont Junior High
Central School

Teachers from Westmont Junior High made shirts displaying their zero ort pride

Photo by: Marvin Moriarty, USFWS

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