



# Taft Times

Lorado Taft Campus—Northern Illinois University



## Have Skis.....Think Snow!

*Let it snow, let it snow, let it snow!*

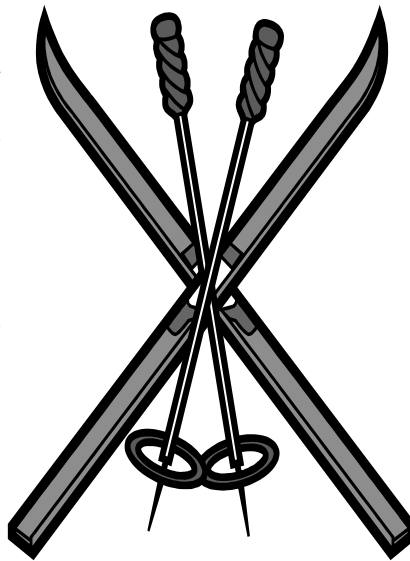
The winter months are always an exciting time for exploration of the forests and fields as well as engaging in winter sports. These sports include the Taft traditions of snow shoeing, racing through the snow in bulky clothes and the extremely popular “Lost and Found Fashion Show”. It’s definitely an adventure when schools visit Taft campus during the winter season.

This year we are proud to say that the winter outdoor experience will include breaking trail through the snow with our new set of cross-country skis! When we began our search for ski equipment, the powers of networking and perfect timing were on our side because the Illinois State University Outdoor Adventure Program, who sells their skis to interested buyers at their annual equipment sale, was able to provide Taft with over 40 pairs of skis, boots, and poles.

Our winter sports inventory now includes cross coun-

try skis and snow shoes for children and most adults. A solid curriculum has been designed to provide students with the history and necessary techniques for an enthralling, exciting winter experience. Whether as part of a winter ecology class or as a skiing class, Taft’s fields and forests, as well as Lowden State Park, will soon be full!

Snow, of course, is always an unpredictable force of nature. While the past few years haven’t been terribly snowy here at Taft, with Mother Nature’s help and a positive attitude once the snow hits the ground, students will be out in the middle of it gladly swooshing around on the skis, learning and exploring together.



*Note: We are looking for a few extra pairs of smaller children’s skis and boots. If you have been looking to*

*donate your skis, please let us know. We’d love to take them off of your hands!!*

## Syrup comes from where?!?

Most students today think maple syrup is something that comes from a factory and the “maple” is some sort of artificial flavor that has been added to the syrup. The connection is not always made between the syrup and the tree and when it is, students often think that the syrup comes right out of the tree. Maple syrup has a history that goes back hundreds of years and did not even start out as a liquid!

The journals of early European explorers reveal that Native Americans had a

process for making maple sugar as early as 1609. There is an Iroquois legend about how Chief Woksis left his tomahawk in a tree over night and the sap of a maple tree collected in a container at the base of the tree. When the sap was used to cook, it gave the food a sweet flavor. This was called “sinzibukwud” meaning sweet buds.

Most Native Americans, though, kept maple sugar in its solid form because the syrup

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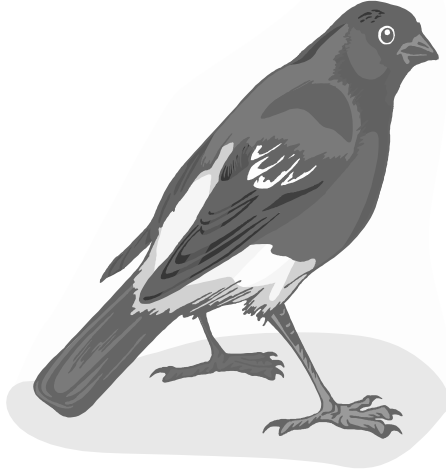
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# Winter Birding at Taft

**H**ere at Lorado Taft, one of the more popular things to do is watch the birds who come to the feeders set up all over campus. Traditionally, the best birding is done in the spring and fall when migrating birds pass through, however, winter can be a great time to watch birds as well.



Because most birds you see here at Taft during the winter are relatively common, if you happen to be a "lister" (someone who seeks out birds to put them on their life-list), then winter

birding may not excite you. But these birds are special! These are the birds that like Taft, and all of Illinois, so much that they can't bear to leave for someplace more comfortable! They enjoy the aspect of home, much more than the comforts of winter relocation.

Nuthatches, chickadees, downy woodpeckers and tufted titmice, are just a few of the regulars at our feeders. A nuthatch is always a thrill to watch with their amazing acrobatics. The courage of the black-capped chickadee is a joy to watch! They are often one of the first birds to venture up to a new feeder. There is also one bird that *stops in Northern Illinois for the winter!* The Dark Eyed Junco uses Illinois as his warm weather winter escape. It is hard to imagine, coming here to warm up for the winter months!

The forest and prairie can be a great place in the winter. It's easy to become a shut-in and stay nice and warm during the winter, but there is so much awesome stuff going on, that if you spend some time exploring you will be constantly rewarded with wonders large and small!

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## Fun Facts: Snow!



**How big can snowflakes get?** Most snowflakes are less than one-half inch across. Under certain conditions, much larger and irregular flakes close to two inches across in the longest dimension can form. No routine measure of snowflake dimensions are taken, so the exact answer is not known.

**Why is snow white?** Visible sunlight is white. Most natural materials absorb some sunlight, which gives them their color. Snow, however, reflects most of the sunlight. The complex structure of snow crystals results in countless tiny surfaces from which visible light is efficiently reflected.

What little sunlight is absorbed by snow is absorbed uniformly over the wavelengths of visible light thus giving snow its white appearance.

**Is it ever too cold to snow?** No, it can snow even at incredibly cold temperatures as long as there is some source of moisture and some way to lift or cool the air. It is true, however, that most heavy snowfalls occur with relatively warm air temperatures near the ground - typically 15° F or warmer since air can hold more water vapor at warmer temperatures.

**Why do more icicles form on the south sides of buildings?** Icicles form as the result of cycles of melting and freezing. Typically this cycle will occur more often on the south sides of buildings, melting in the day and freezing at night, whereas on the north

sides, without the benefit of the warmth of the sun, melting does not occur as often.

**Is snow edible?** Clean snow is certainly edible. Snow in urban areas may contain pollutants that one should not eat, but they would probably be in such low concentrations that it might not matter. Still, eating snow should be restricted to "wilderness" areas. Sometimes snow contains algae which gives it a red color. This snow can be eaten and some say it actually tastes "good" but we have never tried it.

**Why is snow a good insulator?** Fresh, undisturbed snow is composed of a high percentage (90-95%) of air trapped among the lattice structure of the accumulated snow crystals. Since the air can barely move, heat loss is greatly reduced creating an excellent.

**Does snow change how sound waves travel?** Yes, when the ground has a thick layer of fresh, fluffy snow, sound waves are readily absorbed at the surface of the snow. However, the snow surface can become smooth and hard as it ages or if there have been strong winds. Then the snow surface will actually help reflect sound waves. Sounds may seem clearer and travel farther under these circumstances.

*Greatest 24 Hour  
Snowfall:  
62 Inches  
Thompson Pass, AK*

Information courtesy of:  
<http://nsidc.org/snow/facts.html>

# Lost in Subnivean (Air) Space



If you were to look for the subnivean air space right now, would you look up or down? Left or right? If you thought ‘down’, you would be correct! You may never notice it, but this tiny space is crucial to the survival of small animals during frigid weather!

All year the earth absorbs heat from the sun. Some of this heat energy is stored underground. Biological processes, like decomposition, also produce heat. The absorption, as well as the biological processes, continue in winter even when the ground is blanketed in snow. Heat created from the work happening underground, in addition to the absorption from above, melts anywhere from a few centimeters to two inches of snow at ground level. Grasses and leaves prop up the remaining snow, and a small area called the subnivean space is created! When the air temperature is a frosty -40 degrees Fahrenheit,

it could be a warm 25 degrees for the moles, voles, mice and insects that live under the snow! The subnivean air space is home to animals whose metabolism is much too high for hibernation, so these animals use the subnivean air space

to create tunnels and “highways” under the snow to get to and from their caches of stored food.

So watch your step the next time you are out in the snow! You might just surprise something small and furry!



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## Don't Call it an Igloo!

Winter brings to mind a pleasantly quiet time of year out-of-doors. Long plains of earth blanketed with snow, animals seeking the warmth and comfort of a good shelter. For the survivalist, the coldest season of the year will challenge your skills and present a unique opportunity for practice and refinement.

The presence of snow provides a survivalist with new options for shelter-building, shelter being the first priority in any survival situation. One of the best snow shelters you can create is the quintzee.

To make the quintzee, you'll need to make a big,

dome-shaped pile of snow, six feet tall and fourteen feet across. From here, stick one-foot long sticks in the top, all the way around the outside of the dome. Wait a minimum of three hours and this part of your shelter will coagulate into a solid mass. Then, tunnel in and haul out the snow, up to your sticks. Be sure to create air holes to make breathing easier!

Make a sleeping platform next to the door; it can be made out of snow. Finally, put a candle in the shelter for a half hour, and remove it until the dome freezes. After this you can light the candle again, and it will heat your quintzee up to 75 degrees. Enjoy!

*“One of the best snow shelters you can create is the quintzee.”*



## Maple Sugar continued

was hard to store in the liquid form. Native Americans in the New England area often used the maple sugar as gifts or for trading. They also passed on their knowledge of how to make the sugar to the European settlers who came into the area. The leaders of the New World hoped that this would be a way to reduce dependence on British produced cane sugar. Thomas Jefferson went so far as to plant a maple orchard at his home, Monticello!

Around March here at Taft we bring out our maple syrup making supplies and estab-



lish our own “sugar camp”. We use this as an opportunity to let the students experience something that they may not be able to during the rest of the year. The history, folklore and science of maple sugaring can be added to pioneering, Native American, forest and winter ecology classes. Students can also participate in a whole class about maple sugaring. Your Taft coordinator can help you design a class to meet your needs and interests!



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**We're on the Web!**  
[www.niu.edu/taft](http://www.niu.edu/taft)

## Snow Ice Cream

One of the best parts of winter is the opportunity to create things that can only be done once a year. This is one of our favorites. Give it a try!

- 2/3 cup heavy cream
- 1 to 2 tablespoons pure vanilla extract, to taste
- 1 cup confectioners' sugar
- About 10 cups fresh, clean, fluffy snow

Serves 6

Before starting the recipe, put a large mixing bowl, your mixer's beaters, and individual serving bowls in the freezer for at least 20 minutes. Beat the cream, vanilla, and confectioners' sugar together in the frozen mixing bowl just until the mixture is well thickened - not whipped and fluffy. Immediately fetch the snow from outside, dump it into the bowl, and quickly fold the mixture together. It will probably look clumpy, but that's okay. Over mixing or hesitating will result in slush. Serve the ice cream immediately in the frozen bowls.

Recipe from *Desserts That Have Killed Better Men Than Me: A Sweet Tooth's Most Wanted Recipes*  
By Jeremy Jackson

## Zero Food Waste Hall Of Fame

🏆 Bardwell School  
🏆 Francis Parker School

Everyone who comes to Lorado Taft works hard to reduce their food waste. This year, we would like to acknowledge those schools who have reached the promised land of zero ort. Unfortunately, we do not have the space to recognize the many schools who make it into the "1 Pound Club" by achieving 1 pound of ort or less. Congratulations and lets keep working towards zero ort!