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Puniw - Winter 2019

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How Santa Got His Reindeer by Laura Galloway, CNN

Millions of people know Clement Clarke Moore's poem "The Night Before Christmas," written in New York in 1822 and believed to describe Santa's mode of transportation, a reindeer-driven sleigh, for the first time. But Santa's reindeer have a story and a history all of their own, one tied to the oldest indigenous culture in Northern Europe and accelerated by an American entrepreneur whose principal intention was not delighting children around the world, but creating an appetite for what he hoped would become a mealtime staple as ubiquitous as beef.



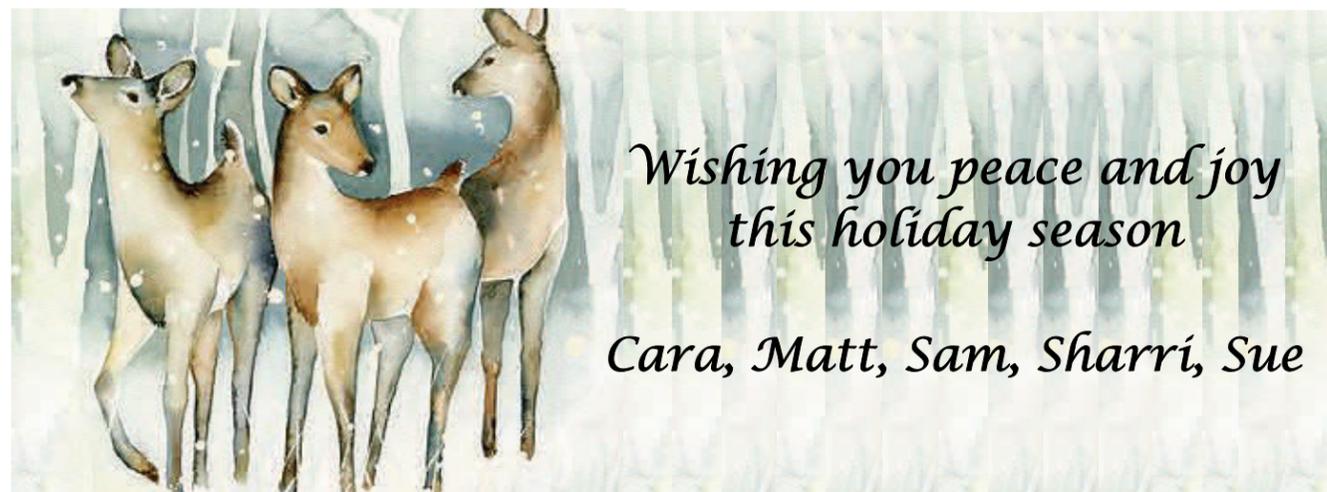
For thousands of years here in the snowy Arctic of northern Norway, reindeer have been a symbol and a way of life for the Sami, Northern Europe's oldest surviving indigenous people, spanning parts of Norway, Finland, Sweden and the Kola Peninsula of Russia, in an area that is known as Sapmi. (They are also called Laplanders.) About 10 percent of Samis still herd, with the bulk of the reindeer population found in Kautokeino and Karasjok, Norway, where even today the reindeer are herded up into the mountains for the long winter and brought down again in spring.

The Sami are some of the most tenacious people on earth -- the cowboys and cowgirls of the tunderu, deeply in tune with nature and able to deftly move and guide huge herds of animals during brutal winters over vast expanses. To many, there are no better herders in the world.

Reindeer first came to Alaska, via Siberia, through the work of an Alaskan missionary named Sheldon Jackson. In the mid-1800s, many Inuit were starving due to the overfishing of whales, the core of the Inuit diet, for whale oil. Consumed with the idea of finding an alternative food source for this culture, Jackson turned the idea of reindeer herding and husbandry.

Thanks to Jackson's lobbying, the U.S. Government agreed, appropriating funds to support seeding the plan by knowledge transfer of expert hunters to the Inuit, starting with a short-lived attempt with Siberians, and later, the Sami. And so in 1898, more than 100 Sami reindeer herders and their families, and nearly 600 reindeer, made the passage from the north of Norway to the United States, ending up in Alaska to introduce reindeer herding, Sami style, to America.

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How Santa Got His Reindeer cont'd

While reindeer are at the heart of traditional Sami culture, the idea of a jolly, gift-giving Santa Claus flying around with his herd has no part in their history or tradition. The two ideas collided in popular culture via a businessman in Alaska named Carl Lomen.

When the reindeer came to Alaska and began to flourish, Lomen, a native of Minnesota, saw the commercial, mass-market possibilities of reindeer meat and fur for the United States and sought to promote it aggressively. Lomen was as much clever marketer as a businessman, and in 1926 he conceived, along with Macy's department store, a promotional Christmas parade led by Santa, his reindeer, a sleigh and several Sami herders in their vibrant traditional dress.

Eventually, similar parades were held in cities around the country, and a meme was born. Lomen is said to have further accelerated his marketing efforts by planting fake children's letters in local newspapers, the fictitious children asking for Santa and his reindeer to visit their towns.

In the 1920s, the Lomen Reindeer Co. owned more than a quarter-million reindeer, Lomen became known as the "reindeer king." But reindeer meat never took off in America for many reasons, most notably pressure from the cattle lobby and changes in laws about who could own reindeer in the U.S. - - the right eventually going in 1937 to indigenous American cultures, excluding even the Sami.

Santa Claus Around the World

- Belgium** - Pere Noel
- Brazil** - Papai Noel
- Chile** - Viejo Pascuero ("Old Man Christmas")
- China** - Dun Che Lao Ren ("Christmas Old Man")
- Czech Republic** - Svatý Mikuláš
- Netherlands** - Kerstman
- Finland** - Joulupukki
- France** - Pere Noel
- Germany** - Weihnachtsmann ("Christmas Man")
- Hawaii** - Kanakaloka
- Hungary** - Mikulas (St. Nicholas)
- Italy** - Babbo Natale
- Japan** - Hoteiosho (a god or priest who bears gifts)
- Norway** - Julenissen ("Christmas gnome")
- Poland** - Swiety Mikolaj (St. Nicholas)
- Russia** - Ded Moroz ("Grandfather Frost")
- Sweden** - Jultomten ("Christmas brownie")
- United Kingdom**- Father Christmas

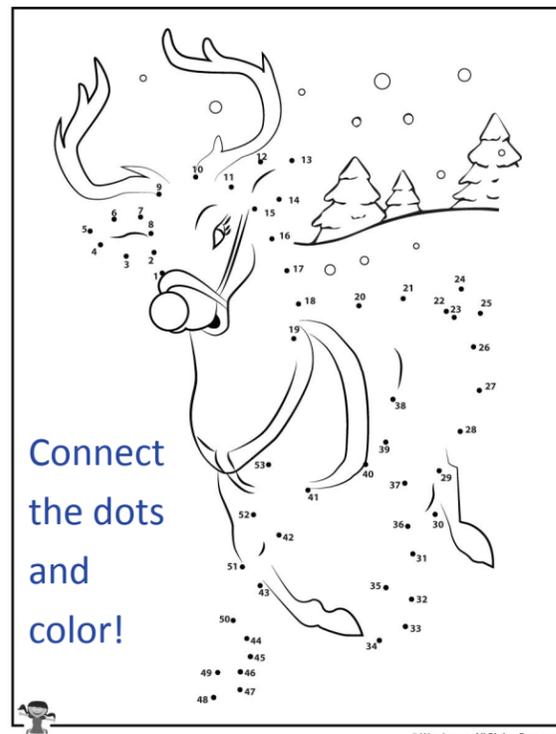


(The law was reversed 60 years later.) Lomen's company was forced out of the reindeer business as a result, but his marketing efforts unleashed a worldwide obsession with Santa and created a common narrative now known around the world, and even elaborated on: Rudolph, the most famous reindeer of all, was not based in mythology or literature stemming from an indigenous culture, but was instead concocted as a character in a coloring book distributed in 1939 by the now-defunct Montgomery Ward department stores.

As a Sami descendant, I became curious about the origin of Santa and his gang of reindeer last year on the Arctic tundra, where I experienced first hand how difficult it can be to rig up even one reindeer. Forget flying. As beautiful and majestic as the reindeer are, they can be skittish, and the idea of rigging eight together and making forward progress seemed ambitious, even in a children's poem.

For a sled, only one reindeer is the Sami tradition, but sometimes more are used when pulling supplies. I've queried many herders about the feasibility of eight reindeer - - it is possible in the right hands, but not common. And these days in Sampi, the snowmobile has replaced the reindeer for transportation purposes, anyway - - something Santa may want to consider.

www.cnn.com/2012/12/22/opinion/Galloway-reindeer/index.html



www.greenglobaltravel.com/history-of-santa-claus-around-the-world

Winter Heating Safety Tips

Now that the temperatures have dropped and there is snow on the ground - it's time to fire up the heater. Be it furnace, space heater, wood or pellet stove there are just a few tips that will help keep your family warm and safe. Make sure you **NEVER plug a space heater into a power strip or extension cord!**



Photo: CBS News.com

Heating elements in a space heater can get up to more than 500° F and can easily melt an extension cord or power strip, only plug these items directly into the wall and check for cord damage regularly.

Also be sure to keep anything that can burn at least 3 feet away from your stove or space heater. Don't let a bit of warmth turn into a tragedy.

For more information: [Electrical Safety Foundation Int'l www.esfi.org](http://www.esfi.org)

HOME HEATING FIRE PREVENTION TIPS

Heating equipment caused an estimated **56,000 home fires** and caused **470 deaths** between 2009 and 2013.* Learn how to stay safe.

- Keep anything that can burn at least **3 feet** from heat sources.
- NEVER** leave a space heater unattended. Turn off when leaving a room or sleeping.
- NEVER** plug a space heater into an extension cord.
- NEVER** use a cooking stove to heat your home or dry clothes.
- Place heaters on level, flat surfaces **ON THE GROUND**.
- Have a qualified service professional inspect your heating system **annually**.
- Install and maintain carbon monoxide alarms.
- Never use a space heater or any appliance with a **damaged cord**.

*According to the National Fire Protection Association

ESFI.org | Facebook.com/ESFI.org | Twitter.com/ESFI.org | Youtube.com/ESFI.org

Fire Prevention and Safety Grants: Funding provided through DHS/FEMA's Grant Program Directorate Assistance to Firefighters Grant Program

<https://www.esfi.org/resource/home-heating-fire-prevention-tips-620>



Find these English & Maliseet words in the puzzle

- Bell
- Candle
- Candy Cane
- Christmas
- Gift
- Noel
- Red
- Santa Claus
- Sled
- Sleigh
- Toy
- Wreath
- Suwahqihikon
- Kenotols
- Sukolosi-apotuhun
- Nipayimiyan
- Miluwakon
- Nuwel
- Pqeyu
- Senotihkolas
- Tapakon
- Kaliyun
- Layyektakon
- Rits

S Q W N E S R T K Y U P I O P L K
 C U S J I B E L L A H G Q F D S A
 Z A K U X P C N V B L S L E D N M
 L M N U W N A B O V R I T S Y C C
 X A Z D L A A Y S T D F Y G H U H
 J K Y L Y O H P I G I F T U O I R
 U T O Y Y C S Q T M R H E W N Q I
 M Q N O E L A I I W I E K R T Y S
 S B L V F R T T E P I G A U L I M
 K E N U W E L A A G O K M N E A A
 P W N H W D J H K P X T O V I N S
 Q R W O E A R T Y O A P U N G O I
 U E Y T T R K E W Q N K A H H S D
 D A V B C O M O N K J H O L U M N
 O T C A N D L E N P J K L N G N O
 I H K J F G C S A N T A C L A U S



Why Are All Snowflakes Different?

Have you ever heard that no two snowflakes are exactly alike? Well, that isn't exactly true. However, the chance of finding twin snowflakes is very, very, very low.

Scientists say the chances of two snowflakes being exactly alike are about 1 in 1 million trillion. That's a one followed by 18 zeros, so it's very unlikely! Meteorologists think there are 1 trillion, trillion, trillion (a one with 36 zeros!) types of snowflakes.

A snowflake has three basic ingredients: ice crystals, water vapor, and dust. The ice crystals form as water vapor freezes on a tiny piece of dust. The dust particles come from many places. It could be from flower pollen, volcanic ash, or even meteors.

Snow forms in very cold clouds. As water droplets attach themselves to the ice crystals, they freeze, creating an even larger ice crystal. In any crystal, molecules line up in a pattern. In ice crystals, water molecules line up and form a six-sided shape called a hexagon. This is why all snowflakes are six-sided!

The temperature of the cloud determines the shape of an ice crystal. Likewise, the amount of moisture in the cloud

determines the size of the ice crystal. More moisture will create a bigger crystal. When several ice crystals stick together, they form a snowflake.

As snowflakes tumble through the air, swirling and spiraling, they each take a different path to the ground. Each snowflake falls and floats through clouds with different temperatures and moisture levels. This shapes each snowflake differently. Two snowflakes from the same cloud will have different sizes and shapes because of their different journeys to the ground. You may never find an identical pair of snowflakes, but they can be grouped by similarities in their patterns.

People who study snowflakes group them into shapes like stellar, fernlike, needle, and many others. The next time you're out in the snow, try to catch snowflakes to examine. But be careful! Snowflakes are delicate and melt easily.

Most fun snow activities involve pushing many snowflakes together. How else could you possibly make a snow fort? Still, seeing a single snowflake up close is worth the effort. You might just find a new shape that's never been seen before!

www.wunderopolis.org/wonder/why-are-all-snowflakes-different

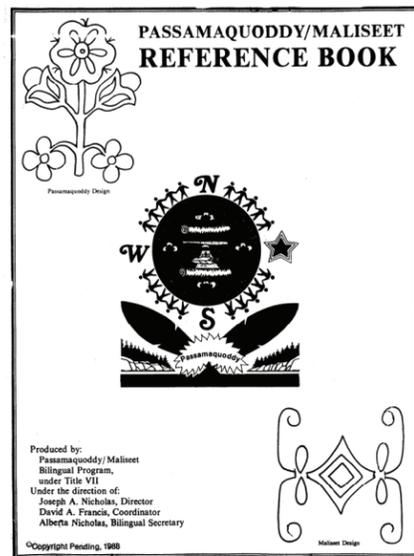


Musey Ksap (Moose Stew)

Now's a great time to settle in with a nice bowl of moose stew or musey ksap in Maliseet. Check out this recipe from the Passamaquoddy Maliseet Reference Book. Try making it without using the English translation! **Enjoy!**

- ◆ 1. Musey (apsosasik)
- ◆ 2. Pocetesol
- ◆ 3. Pali
- ◆ 4. Wisawaqsicik
- ◆ 5. Psehpon
- ◆ 6. Wenuchuwihpon
- ◆ 7. Salawey naka tehpiseweyal

Tetpite lakomiteht (1-2-4-6) tokkiw mace nuhkaqotek. Ktepahkan (3-5-7). Kmenakataqosomon tokkiw psiw kew woli nuhkaqotek.



- ◆ Moose meat - diced
- ◆ Potatoes
- ◆ Barley
- ◆ Carrots
- ◆ Onions
- ◆ Turnip
- ◆ Salt and pepper
- ◆ Boil meat, potatoes, turnip and carrots together until semi-tender. Add barley, onion, salt and pepper to taste. Cook (simmer) until all food is tender.

Salmon Genomics and eDNA by Sam St. John

This year, EPA Region 1 (New England) submitted a proposal for a 2020 Regional Applied Research Effort or RARE for short, to support HBMI, and our Canadian First Nation counterparts to restore and reclaim a thriving Atlantic salmon fishery in the Wolastoq Watershed. (St. John) The Medunxekeag River that flows through tribal trust lands is a trust resource and is part of the larger Wolastoq watershed.

Due to the international scope of this project, in addition to working with the US EPA Office of Research and Development (ORD), HBMI is working with Canada's Department of Fisheries and Oceans (DFO), US Fish & Wildlife Service (FWS), National Oceanic and Atmospheric Association (NOAA), the University of Maine, Orono (UMO), the University of New Brunswick, Saint John (UNB) and the Maliseet Nation Conservation Council (MNCC).

One aspect of the effort is DNA sampling and genetic mapping. The genes of every salmon differ slightly in each tributary of the St. John River where they breed. Because there are very low number of naturally returning salmon in the Medunxekeag, information on optimal genetics for the river is sparse. The goal of the project is to sample salmon DNA from each tributary of the Wolastoq/St. John to create a genetic tree. Using this tree, the most compatible DNA can be found to serve as the foundation of future salmon restoration efforts on the Medunxekeag River. The completed genetics map will also be made available publicly for use by other agencies in the Wolastoq/St. John River watershed.

To collect this data, approximately 2,000 Atlantic salmon tissue samples are planned to be collected (via electrofishing) from specific locations throughout the Wolastoq watershed. Once collected EPA's research scientists at ORD's National Exposure Research



Photos (Above) HBMI's Water Resources Specialist Cara O'Donnell (Below) Capt. Michael Stover, US EPA, presenting on this project at the recent Tribal Science Conference in November 2019



Laboratory, along with UMO and UNB will conduct various genetic analyses on the samples of tissue taken directly from the wild caught salmon to help researchers develop an analysis of patterns of existing genetic diversity. We'll keep you posted as this project moves forward.



Photos (far left) Electrofishing, (left) measuring a sample, (below) salmon smolt caught in Big Brook





Warnings, Watches & Advisories - oh my!

It's that time of year when everyone pays more attention to the weather forecast wondering what Mother Nature is going to throw at us.

The National Weather Service, or NWS for short, shares some great information explaining the differences between warnings, watches and advisories. By knowing the difference it can help keep you and your family safe this winter.

Winter weather related Warnings, Watches and Advisories are issued by your local National Weather Service office. Each office knows the local area and will issue Warnings, Watches or Advisories based on local criteria. For example, the amount of snow that triggers a "Winter Storm Warning" in the Northern Plains is typically much higher than the amount needed to trigger a "Winter Storm Warning" in the Southeast.

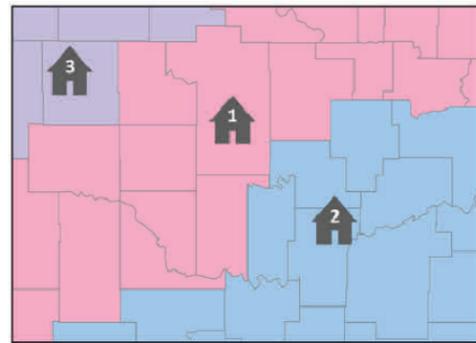
Warnings: Take Action!

- **Blizzard Warnings** are issued for frequent gusts greater than or equal to 35 mph accompanied by falling and/or blowing snow, frequently reducing visibility to less than 1/4 mile for three hours or more. A Blizzard Warning means severe winter weather conditions are expected or occurring. Falling and blowing snow with strong winds and poor visibilities are likely, leading to whiteout conditions making travel extremely difficult. Do not travel. If you must travel, have a winter survival kit with you. If you get stranded, stay with your vehicle and wait for help to arrive.
- **Winter Storm Warnings** are issued for a significant winter weather event including snow, ice, sleet or blowing snow or a combination of these hazards. Travel will become difficult or impossible in some situations. Delay your travel plans until conditions improve.
- **Ice Storm Warnings** are usually issued for ice accumulation of around 1/4 inch or more. This amount of ice accumulation will make travel dangerous or impossible and likely lead to snapped power lines and falling tree branches. Travel is strongly discouraged.
- **Wind Chill Warnings** are issued for a combination of very cold air and strong winds that will create dangerously low wind chill values. This level of wind chill will result in frostbite and lead to hypothermia if precautions are not taken. Avoid going outdoors and wear warm protective clothing if you must venture outside.
- **Lake Effect Snow Warnings** are issued when widespread or localized lake induced snow squalls or heavy showers are expected to produce significant

snowfall accumulation. Lake effect snow usually develops in narrow bands and impacts a limited area. These bands can produce very heavy snow with sudden restrictions in visibility. Driving conditions may become hazardous at times.

Watches: Be Prepared!

- **Blizzard Watches** are issued when there is a potential for falling and/or blowing snow with strong winds and extremely poor visibilities. This can lead to whiteout conditions and make travel very dangerous.



Winter Storm Products

- Winter Storm Warning**
Snow, sleet, or ice expected! Take Action! Confidence is high that a winter storm will produce heavy snow, sleet or freezing rain and cause significant impacts.
- Winter Storm Watch**
Snow, sleet, or ice possible! Be prepared. Confidence is medium that a winter storm could produce heavy snow, sleet, or freezing rain and cause significant impacts.
- Winter Weather Advisory**
Wintry weather expected. Exercise caution. Light amounts of wintry precipitation or patchy blowing snow will cause slick conditions and could affect travel if precautions are not taken.

NOAA

- **Winter Storm Watches** are issued when conditions are favorable for a significant winter storm event (heavy sleet, heavy snow, ice storm, heavy snow and blowing snow or a combination of events.)
- **Wind Chill Watches** are issued when there is the potential for a combination of extremely cold air and strong winds to create dangerously low wind chill values.
- **Lake Effect Snow Watches** are issued when conditions are favorable for a lake effect snow event. A potential exists for heavy accumulation of lake effect snow. Travel and commerce may be significantly affected.

Advisories: Be Aware!

- **Winter Weather Advisories** are issued when snow, blowing snow, ice, sleet, or a combination of these wintry elements is expected but conditions should not be hazardous enough to meet warning criteria. Be prepared for winter driving conditions and possible travel difficulties. Use caution when driving.
- **Freezing Rain Advisories** are issued when light ice accumulation (freezing rain and/or freezing drizzle) is expected but will not reach warning criteria. Expect a glaze on roads resulting in hazardous travel. Slow down and use caution while driving because even trace amounts of ice on roads can be dangerous.

Continued page 5

Warnings, Watches & Advisories - oh my! continued

- **Wind Chill Advisories** are issued when low wind chill temperatures are expected but will not reach local warning criteria. Extremely cold air and strong winds will combine to generate low wind chill readings. If you must venture outdoors, take precautions against frostbite and hypothermia
- **Lake Effect Snow Advisory** are issued for widespread or localized lake effect snowfall accumulation (and blowing snow) remaining below warning criteria. Expects lake effect snow showers and assume travel will be difficult in some areas. Some localized snow bands will be intense enough to produce several inches in a few areas with sudden restrictions in visibility.

Here are some more key terms to understand:

- **Freezing Rain:** Rain that freezes when it hits the ground; creating a coating of ice on roads, walkways, trees and power lines.
- **Sleet:** Rain that turns to ice pellets before reaching the ground. Sleet also causes moisture on roads to freeze and become slippery.
- **Wind Chill:** A measure of how cold people feel due to the combined effect of wind and cold temperatures; the Wind Chill Index is based on the rate of heat loss from exposed skin. Both cold temperatures and wind remove heat from the body; as the wind speed increases during cold conditions, a body loses heat more quickly. Eventually, the internal body temperature also falls and hypothermia can develop. Animals also feel the effects of wind chill; but inanimate objects, such as vehicles and buildings, do not. They will only cool to the actual air temperature, although much faster during windy conditions.

www.weather.gov/safety

Wow - 20 years goes by Fast!

It's really hard to believe, but this issue marks the 20th year of our newsletter - *Skitkomiq Nutacomit* launched in December 1999! Over the years we've brought you many articles about our programs, projects, environmental information, general science stuff, language, culture and more! We hope you've enjoyed these newsletters and look forward to receiving them. Please check out our website <http://naturalresources.maliseets.com/newsletter-2/> to find our complete archive of past newsletters.

Puniw (In the Winter)
December 1999
Issue 1 Volume 1



HBM Natural Resources Department



Welcome to Skitkomiq Nutacomit

Welcome to the premier edition of *Skitkomiq Nutacomit* the newsletter of the Natural Resources Department of the Houlton Band of Maliseet Indians.

Nick Paul for his help in naming our newsletter.

We want to take this opportunity to introduce you to the department staff and

Wind Chill Chart

| Wind (mph) | Temperature (°F) | | | | | | | | | | | | | | | | | |
|------------|------------------|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 40 | 35 | 30 | 25 | 20 | 15 | 10 | 5 | 0 | -5 | -10 | -15 | -20 | -25 | -30 | -35 | -40 | -45 |
| 5 | 36 | 31 | 25 | 19 | 13 | 7 | 1 | -5 | -11 | -16 | -22 | -28 | -34 | -40 | -46 | -52 | -57 | -63 |
| 10 | 34 | 27 | 21 | 15 | 9 | 3 | -4 | -10 | -16 | -22 | -28 | -35 | -41 | -47 | -53 | -59 | -66 | -72 |
| 15 | 32 | 25 | 19 | 13 | 6 | 0 | -7 | -13 | -19 | -26 | -32 | -39 | -45 | -51 | -58 | -64 | -71 | -77 |
| 20 | 30 | 24 | 17 | 11 | 4 | -2 | -9 | -15 | -22 | -29 | -35 | -42 | -48 | -55 | -61 | -68 | -74 | -81 |
| 25 | 29 | 23 | 16 | 9 | 3 | -4 | -11 | -17 | -24 | -31 | -37 | -44 | -51 | -58 | -64 | -71 | -78 | -84 |
| 30 | 28 | 22 | 15 | 8 | 1 | -5 | -12 | -19 | -26 | -33 | -39 | -46 | -53 | -60 | -67 | -73 | -80 | -87 |
| 35 | 28 | 21 | 14 | 7 | 0 | -7 | -14 | -21 | -27 | -34 | -41 | -48 | -55 | -62 | -69 | -76 | -82 | -89 |
| 40 | 27 | 20 | 13 | 6 | -1 | -8 | -15 | -22 | -29 | -36 | -43 | -50 | -57 | -64 | -71 | -78 | -84 | -91 |
| 45 | 26 | 19 | 12 | 5 | -2 | -9 | -16 | -23 | -30 | -37 | -44 | -51 | -58 | -65 | -72 | -79 | -86 | -93 |
| 50 | 26 | 19 | 12 | 4 | -3 | -10 | -17 | -24 | -31 | -38 | -45 | -52 | -60 | -67 | -74 | -81 | -88 | -95 |
| 55 | 25 | 18 | 11 | 4 | -3 | -11 | -18 | -25 | -32 | -39 | -46 | -54 | -61 | -68 | -75 | -82 | -89 | -97 |
| 60 | 25 | 17 | 10 | 3 | -4 | -11 | -19 | -26 | -33 | -40 | -48 | -55 | -62 | -69 | -76 | -84 | -91 | -98 |

Frostbite Times: 30 minutes, 10 minutes, 5 minutes

Wind Chill (°F) = 35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})
Where, T = Air Temperature (°F) V = Wind Speed (mph) Effective 11/01/01

The NWS Wind Chill Temperature (WCT) index uses advances in science, technology, and computer modeling to provide an accurate, understandable, and useful formula for calculating the dangers from winter winds and freezing temperatures. The index does the following:

- Calculates wind speed at an average height of 5 feet, the typical height of an adult human face, based on readings from the national standard height of 33 feet, which is the typical height of an anemometer
- Is based on a human face model
- Incorporates heat transfer theory based on heat loss from the body to its surroundings, during cold and breezy/windy days
- Lowers the calm wind threshold to 3 mph
- Uses a consistent standard for skin tissue resistance
- Assumes no impact from the sun, i.e., clear night sky

Wind Chill temperatures is defined only for temperatures at or below 50° F and wind speeds above 3 mph.

Puzzle Answers

