Snowshoeing

Program Purpose
To introduce participants to snowshoe history, equipment and technique and teach a lifelong outdoor winter recreational skill.

Length of Program: 1 – 3 hours

Age: 2nd grade - Adult

Maximum Number of Participants: 30

Preparation:
Before the class arrives:

- If the snowshoe side of the craft building is extremely cold an hour or two before class start a fire in the wood stove. Do not allow the room to get too warm since warm snowshoes stick to snow and eventually ice up.
- Check to see that the snowshoe room is orderly and snowshoes are in pairs.
- If you will have enough time to introduce the different types and history of snowshoes arrange demonstration equipment.

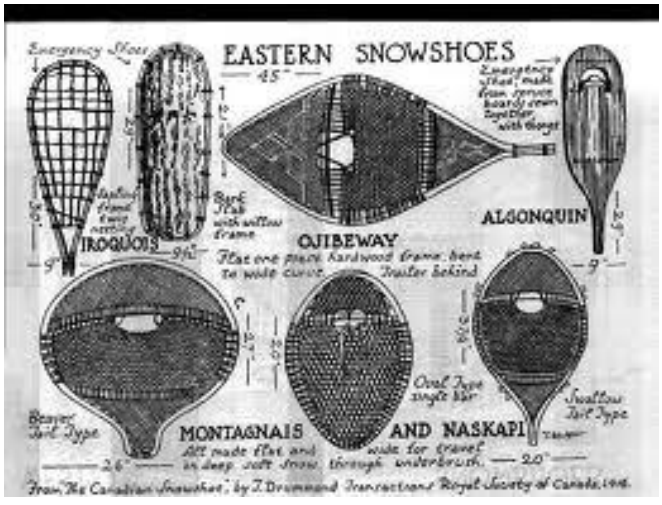
Basic Outline

I. Introduction (5-10 minutes)
II. History of Snowshoeing (5-15 minutes)
III. Gearing up (10-15 minutes)
IV. Demonstrations and snowshoeing (30-60 minutes)
V. Conclusion and clean up (10 minutes)

Wisconsin Standards:
A.8.3 Explore personal interests in a variety of new physical activities both in and out of the physical education class
A.12.1 Participate regularly in health-enhancing fitness activities such as games, sports, dance, outdoor pursuits, and other physical activities that contribute to the maintenance of wellness, independent of class requirements
D.8.2 Recognize the social benefits of participation in physical activity such as the joy of participating with a team and sensing team fulfillment

Introduction
Bring the students to the craft building and direct them to sit on the picnic tables or chairs. Hold up a snowshoe and ask your group if anybody has snowshoed before. What is the purpose of a snowshoe? Snowshoes increase the surface area of your foot so that you do not sink down into the snow as far. Many animals in nature have natural snowshoes built right into their bodies. Ask the students if they can think of any animals that have this adaptation of snowshoe feet? (wolves, lynx, snowshoe hare) Early versions of snowshoes, which will be discussed later, are similar to modern equipment in that they allow people to move more efficiently in deep snow. The large surface area of the snowshoes displaces the weight of the user over a greater area on top of the snow and allow them to "float" on top of the snow as opposed to sinking down deep in the snow with every step, also known as post-holing (or post-holing). Snowshoeing on top of the snow is much more efficient; post-holing is very slow and consumes much more energy. The can be demonstrated using a small, heavy rock and an old snowshoe. Place the rock first in deep snow where it will readily sink down into the snow. Next place a snowshoe on the same deep snow and then place the rock on top of it. Why doesn't the rock sink into the snow? The snowshoe displaces the weight of the rock on the snow over the entire surface area of it. Before the advent of snowmobiles, roads and cars snowshoes allowed people living in regions with deep snow to travel longer distances during the winter more efficiently. Prehistoric people in the northern Eurasia came up with a different solution to the same problem; do you know what they invented? Cross-country skis!

History
If time allows give your students some history on snowshoes. Some theories suggest that a precursor to the snowshoe was in use in central Asia about 6000 years ago! These early snowshoe ancestors, however, were probably more like a cross between a Nordic ski and a snowshoe, wide and straight. This early device may have been a common ancestor to both the modern snowshoe and Nordic ski. Other theories on the origins of snowshoes say that snowshoes were invented in northern regions of North America approximately 5000 years ago. Documentation



does exist showing the closest relatives to the modern snowshoe do have their origins in North America. Early European explorers described encountering North American Indians that utilized webbed, wood-framed snowshoes very similar to the Ojibwe or Michigan snowshoe of today.

Early European explorers noted that North American Indian snowshoe design differed from one tribe to the next. Ask your group what are some factors that would cause differences in design from one tribe to the next? The differences are most likely the result of the different conditions the native people were living in thus requiring different design features. For instance, the Iroquois people used shorter and more compact snowshoes that were easier to maneuver in the forested areas they inhabited, compared to the snowshoes used by the Cree hunters in the deep snow and open expanses of northern North America, these were sometimes as long as six feet! Most of these early snowshoes, however, did share some common design features: strong, wooden frame made from a bendable wood, such as ash, with webbing made from animal hide or sinew (connective tissue). Why would early North American people have used these materials? (Because these were the materials available to them in nature.)

Types of Snowshoes

If time allows use the demo snowshoes and/or pictures to illustrate the different common designs of snowshoes. Snowshoe design changed little for thousands of years. As mentioned above different Native American tribes had different designs that they developed based upon the conditions in which they lived, and they continued to make and use those designs. Once in North America Europeans and European descendants simply copied the designs. It's only been in the last 40 or 50 years that dramatic new designs have been created; this has partially been driven by the increasing popularity of snowshoeing as a sport and new materials, such as plastic and aluminum, becoming widely available.

The "beavertail' or Michigan snowshoe, the most common traditional style, has a round nose with the ends coming together in a long tail. The tail helps the snowshoe to track, or stay in a straight line, as the tail drags along the snow surface.

An Alaskan snowshoe is a stretched out version of the Michigan, sometimes as long as six to seven feet long. An Alaskan snowshoe would be preferable in northern Canada or Alaska where the snow can get very deep and the trees are sparse, since the length provides excellent floatation but makes it difficult to maneuver.

The "bearpaw," as its name implies, is usually round or oval like a bear's paw and thus does not have a tail. This makes the bearpaw design more maneuverable but the lack of a tail can cause the snowshoe to occasionally be slightly out of place when the user steps down. A stretched out bearpaw, so the shape is long, narrow and oval as opposed to wide and round, is sometimes referred to as a Green Mountain or modified bearpaw. Green Mountain bearpaw snowhoes have many of the same attributes as a bearpaw, however many find them easier to use due to their width being less wide, making it less likely the left and right snowshoe will get in the way of one another.

The Michigan and bearpaw designs have had enormous influence on modern snowshoe design. Modern snowshoes, more often being used for exercise and recreation as opposed to survival, generally are smaller, lighter and made of modern materials like aluminum and plastic.

As cities grew and society shifted from a farming to an industrial culture, people who no longer had to trap, hunt or forage for food, took to the woods for pure enjoyment and exercise. The recreational sport of snowshoeing was born.

Strapping on

Traveling with snowshoes is the same as walking though since the snowshoes are wider than your feet, you might need to take longer and slightly wider steps to avoid walking on your own feet and tripping. It is important not to "bridge" the snowshoe. You want the whole sole of the snowshoe to always be in contact with the ground. "Bridging" is when one end of the snowshoe is higher than the other and there is a gap underneath the middle, this is the surest way to snap a shoe in half. When encountering a log or stump, either walk around it or side step over it. Turning around can be accomplished by walking around in a circle, or by flipping first one, then the other foot 180 degrees. And if you fall down; get into the "dead bug" position (on your back with arms and feet in the air), roll over onto your knees, and push yourself to a standing position with your hands.

- If there is time allow students to try running or playing tag in the snowshoes.

Heading out

Direct the group to the Riverbend or Westridge trail for their adventure. After your students have gotten comfortable walking with the snowshoes take them off trail into unbroken snow. Select an area that is free of thick undergrowth, such as prickly ash or raspberry bushes. Have them return to the craft center when finished. Make sure the snowshoes are returned as a pair and mostly free of snow.

References and Citations

Drummond, Thomas (1916-12). "The Canadian snowshoe". *Transactions of the Royal Society of Canada, section 2*. 3 **10**: 305–20 + pl. 1–6

Morrison, Jim. "Smithsonian.com." *Smithsonian.com*. Smithsonian Magazine, 11 Jan. 2011. Web. 15 Feb. 2013.

"Snowshoe." *Wikipedia*. Wikimedia Foundation, 14 Feb. 2013. Web. 15 Feb. 2013. <http://en.wikipedia.org/wiki/Snowshoe>.