Snowshoe Experiment

Test the effectiveness of snowshoe designs with an experiment!



Maker: George Sam. UA69-052-0007AB.

People in the Arctic often use snowshoes for traveling in wintertime. Snowshoes work by distributing the weight of a person so that they will not sink in snow.

Materials Needed:

Plastic bin or metal baking tray, snow or flour, cardboard pieces, scissors, tape, measuring tape. *Optional*: Other craft supplies (pipecleaners, yarn, foam pieces, etc.).

Instructions:

Step 1: Fill a plastic bin or baking tray with a layer of snow or flour 1 to 1.5 inches deep.

Step 2: Poke your fingers into the snow or flour. Observe and measure how deep the "footprints" are.

Step 3: Design a pair of snowshoes for your fingers. Look at the pictures of snowshoes for inspiration!

Step 4: Use the cardboard or other craft materials to build your snowshoes. Experiment with different materials and designs!



Step 5: Test your snowshoes. Place them on top of the snow or flour and press your fingers down. How deep are the "footprints" now? Adjust your design and try again!

Did You Know? Traditional Dené (Athabascan) snowshoes are much more effective in Interior Alaska's powdery snow conditions than some modern snowshoes. Can you guess why?





Traditional Technology: Snowshoes



Image: pcdazero, Pixabay.com.

"Making snowshoes like these is time consuming and requires a great deal of knowledge. The artisan must know how to select the right birch tree, how to best chop it down, bend the frame, carve the wood, make the moose or caribou lacings, and weave the complex patterns of the webbing. In addition, the artisan must understand the science behind what different styles and shapes are needed for different people, activities, and snow conditions. Snowshoe makers develop their own personal style based on what they saw, who they learned from, and their personal preferences...

Today, traditional snowshoe-making is an endangered art, but thanks to objects like this in museum collections, elders and master craftsmen can learn how past generations made these items, and can continue to pass on the knowledge, stories, language, and traditions associated to the skills that are central to Athabascan people."

From "Dena'ina Athabascan Snowshoes", Lake Clark National Park & Preserve: www.nps.gov/articles/athabascan-snowshoes.htm



Dena'ina Snowshoes, Wassillie Trefon, 1957. *Lake Clark National Park & Preserve.*



Bearpaw-Style Snowshoes, ASA C. Osborn Company, pre-1947. *UA99-001-0006AB*.



Iñupiaq Snowshoes (tagluk), 1887. National Museum of Natural History, E127941



Chukchi-Style Snowshoes, Siberia, 1882. *National Museum of Natural History, E063603*

