



Transportation - Snowshoes

Organization:

Title: Transportation - Snowshoes

Summary: Students learn about snowshoe designs utilized by local Indigenous groups. Next, students can engage in an optional extension activity in which they examine how traditional snowshoe designs reduced pressure upon the snow by dispersing weight over a larger area. Students learn how to calculate pressure by converting metric units into international system of units (SI).

Inquiry Question: Inquiry Question 1. What are some local culturally significant tools and technologies that when utilized enter local Indigenous groups into a relationship of reciprocity with the natural world?

Duration: 1-2 class periods

Learning Environment: Classroom, outdoor

Season: Winter

Materials:

- Access to the online QUILLS dictionary
- Snowshoe.pdf
- Activity Link:
https://cdn.we.org/wp-content/uploads/2016/07/WST-E26-Elementary_Science-and-Technology.pdf
- Materials substitutes for constructing snowshoes ie:
 - Ratten for white ash
 - Synthetic sinew or twine for rawhide
 - Shoelaces or rope for leather bindings etc.

Curriculum Links:

Grade 7 Science and Technology: A1.1, A1.3, A1.5, A3.3, B1.3, B2.5

Grade 9 Science: A1.1, A1.3, A2.5, B1.3

Grade 9 Academic Geography: C1.4

Meta Data:

Content Type: Activity, language learning

Bundle: Tools

Theme: Invasive Species

Subject Area: Biology, Environmental Education, History, Mathematics, Outdoor Education, Physics, Science, Social Studies

Curriculum Focus: 7, 9

If building snowshoes with students, we recommend inviting an Indigenous community member into the learning environment.



- Local Indigenous groups have many sophisticated tools and technologies that assist with transportation. One example is snowshoes.

Spotlight on Language

Kanyen'kéha: Kahwen:kare

Anishinaabemowin: Aagam

Students can add these words to their Outdoor Learning Journals (introduced in the QUILLS Teacher's Guide). Students can also go onto the online QUILLS dictionary to hear the words.

- Students review the **Snowshoe.pdf** to learn more about local Indigenous snowshoe designs and how snowshoes help(ed) community travel and hunt in the winter in deep snow.

Extension:

- Teachers may also wish to adapt the following activity:
https://cdn.we.org/wp-content/uploads/2016/07/WST-E26-Elementary_Science-and-Technology.pdf
- In this activity students examine how traditional snowshoe designs reduced pressure on snow by dispersing weight over a larger area. Students learn how to calculate pressure by converting metric units into international system of units (SI).
- If time and materials permit, with assistance from a local Indigenous community member, students can build and trial their snowshoes.

The learning represented in these activities reflects Big Idea B. in the Indigenous Knowledge Learning Bundle: "Indigenous Knowledge is Place-Based". To help your students learn more about this Big Idea check out the Learning Activities titled: *Land-Based Meditation*, *Land Acknowledgement Workshop*, *Ceremony Ensures Right Relations with the Land*, *The Clan System*, and *The 13 Moons* found in the *Indigenous Ways of Knowing and Being with the Natural World* Learning Bundle (Grades 7-10).