**Lesson 1**

**Small Group Introduction and Snowshoe Orientation**

**Learner Objectives:**

* Learners will be adequately prepared with proper clothing and equipment for the day’s activities.
* Learners will discuss the history of snowshoes and identify animals with similar adaptations.

**Lesson Goals:**

* Learners will understand and feel comfortable with the proper use snowshoes.
* Learners will understand how snowshoes work and be able to identify animals with similar adaptations.

**Materials:**

* Additional warm and/or waterproof clothing for students if needed
* Snowshoes (one pair for each student)

**Assessment:**

* Check to ensure students are properly clothed to safely participate in the day’s activities.
* Students will demonstrate through activity that snowshoes are properly fitted and secured.
* Additional assessment is embedded in the conversations as they progress. Inquiry-based teaching techniques are recommended. Questions posed to the group regarding snowshoe history and animal adaptations will lead to answers and discussions the educator can use to assess student connection and content understandings.

**Time Frame:**

* 20-30 minutes

**Background Information:**

Middle and high school students will be traveling from all over Whatcom and Skagit Counties to participate in SnowSchool (elev. 3500’) at the Mt. Baker Ski area. Despite living in such close proximity, many of these students have never been to this specific location in the North Cascades. SnowSchool instructors will be responsible to ensure their group of students are adequately prepared and comfortable for the day’s activities. All instructors are expected to be outside to greet the students when the bus arrives. The coordinator or another designated instructor will board the bus and welcome students to SnowSchool. Instructors will be asked one by one by the coordinator to step onto the bus, introduce themselves and lead their students off the bus towards the lodge where they will ensure everyone is prepared for the day’s activities.

**Orientation Activity:**

1. Welcome students to SnowSchool at the Mt. Baker Ski Area. Introduce self and ask students for their names (any number of name games can be played if it is helpful and appropriate for instructor to know students). Additionally, ask students:
   1. Are there any observations you’d like to share about your trip up to SnowSchool?
   2. Have any of you been up to this area before? If yes, what time of year was it and what were you doing? Did it look different than it looks today?
2. Walk students to the lodge and direct them to the restrooms if they need to use them. Afterwords, ask students if they are prepared to be outside in the weather for a few hours. Ensure students are properly dressed with warm layers and waterproof shells. Find out if any students needs to borrow clothing or boots for the day. Lead the group throught the process of checking out equiptment as quickly as possible.
3. Take students to the snowshoe station and ask if any of them have used snowshoes. If appropriate, have a student demonstrate to the group how to properly put them. Assist students as necessary. Encourage them to practice walking around, falling and getting up.
4. As students finish securing snowshoes, introduce *Snowshoe Rock, Paper, Scissors*. This is a great way for them to warm up and check that all snowshoe bindings are securely fastened. Here is how to play:
   1. Pairs of students face each other and hop while they call out “rock-paper-scissors – SHOOT!”.
   2. On “SHOOT!” the students arrange their feet in either rock, paper or scissors (rock = feet together, paper = feet apart (spread eagle style), scissors = 1 foot forward, 1 foot back (splits style)).
   3. The winner is declared per usual rock, paper scissors rules (rock beats scissors, scissors beats paper, paper beats rock).

If time permits, play a few of rounds to get students warmed up.

1. When the group is ready to head out on the trail, ask students questions regarding the use and history of snowshoes. Use inquiry-based learning techniques to engage the students. Questions may include:
   1. Where do you all think snowshoes came from? How long have snowshoes been around?
      1. *Snowshoes have been used by humans for more than 4,000 years. There is evidence of snowshoes used in North America, Europe and Asia. Indigenous peoples across North America traditionally used them for winter travel and hunting in the snow.*
      2. *Some of the longest snowshoes were made by the Cree people of the area that is now Eastern Canada. They were up to 6 feet long!*
      3. *The basic snowshoe design has not changed much over time. Some alterations include adding a cleated bottom and hinged binding, and replaced the wood frame for an aluminum one. Snowshoes are an example of applied science. Today we will use this indigenous-based applied science to explore and learn in this winter ecosystem.*
   2. Why do we use snowshoes? Can you think of any animals that have similar adaptations to snowshoes?
      1. *We use snowshoes to stay on top of the snow (snowshoes provide more surface area to distribute our weight). How would a deer compare to a bobcat when traveling on soft snow?*
      2. *Examples of animals with adaptations for walking on the snow may include bobcats, snowshoe hares, wolverines and polar bears, all of which have relatively large feet compared to their body size.*