

Classroom Activity: Research Gear and Equipment Climbing Gear Overview



Created by Montana State University Extended University and Montana NSF EPSCoR
www.montana.edu/everest

The Everest Education Expedition Kits received by some Montana classrooms included the following climbing gear samples. You can ask a rock climber or ice climber to visit your classroom and demonstrate these pieces of equipment to your class.

Rope: Climbing rope is one of the most essential components of the climbing system. Its most fundamental role is to connect two or more climbers together to create a system used to arrest a climber's fall. Climbers also use ropes to rappel (ruh-PELL), (the method of descending a rope fixed to an anchor). By rappelling, a climber can lower himself/herself over sections of rock and ice that are too technical and steep to climb down safely. One critical feature of a climber's rope is its ability to stretch when weighted; this factor will stop a falling climber much like a bungee cord.

Webbing: Webbing is utilized by climbers in a number of ways, the most important of which is to connect a climber's rope to an anchor fixed within rock or ice. Also, webbing can be looped around trees and various rock features to form an anchor that a climber can use to fix his rope upon. Webbing doesn't stretch and therefore can't be used as a replacement for climbing rope.

Carabiner: (CARE-a-bean-er) In order for rope and webbing to be effective in their roles described above, a carabiner must be used to clip the rope to the webbing and the webbing to an anchor. Carabiners have many more uses as well, such as to attach various tools to a climber's harness or to clip a climber directly into an anchor.